

# Penfield High School



## Course Selection Guide 2024 ~ 2025

**Cover Design Information:**

Anne Punzi/PHS Art Department

**Details from Charcoal Drawings by:**

Chloe Smits, Gr.12, right side

Salma Elias, Gr. 11, left side

# COURSE SELECTION GUIDE **TABLE OF CONTENTS**

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Click on the subject or page number to go to that page.

A link at the bottom of the pages will bring you back to this page.

Subject	Page
Contact Us.....	4
Course Selection .....	5
Course Selection Process .....	5
Special Education & ENL Services .....	5
Diploma Types.....	6
Four Year Planning Worksheet .....	8
Four Year Plan Of Rotating Courses.....	9
Advanced Placement Course Offerings .....	9
Dual Credit Courses.....	10
Art Courses And Sequence.....	12
Business Course Descriptions .....	19
English Course Descriptions.....	22
Health Course Descriptions .....	27
Mathematics Course Descriptions.....	28
Music Courses And Sequence .....	32
Physical Education Course Descriptions .....	38
Science Course Descriptions .....	41
Social Studies Course Descriptions .....	47
Technology Education Courses And Sequence.....	52
World Languages Course Descriptions .....	57
Eastern Monroe Career Center (EMCC).....	59

## Contact Us

### Administrators

Title	Name	Email	Phone
Principal	Mrs. LeAnna Watt	<a href="mailto:lwatt@penfield.edu">lwatt@penfield.edu</a>	(585)249-6701
Assistant Principal (2028)	TBD	<a href="#">TBD</a>	(585)249-6818
Assistant Principal (2027)	Mrs. Tracey Savine	<a href="mailto:tsavine@penfield.edu">tsavine@penfield.edu</a>	(585)249-6740
Assistant Principal (2026)	Dr. Charlie Roods	<a href="mailto:croods@penfield.edu">croods@penfield.edu</a>	(585)249-6745
Assistant Principal (2025)	Ms. Michele Sick	<a href="mailto:msick@penfield.edu">msick@penfield.edu</a>	(585)249-6702
Special Education	Mr. Michael Black	<a href="mailto:mblack@penfield.edu">mblack@penfield.edu</a>	(585)249-6777

### School Counselors

Alpha/Grade	Name	Email	Phone
A-E (2025) A-Fin (2027)	Ms. Teresa Kneezel	<a href="mailto:tkneezel@penfield.edu">tkneezel@penfield.edu</a>	(585)249-6712
<i>TBD</i> (2028) A-F (2026)	Mr. Chris Pierri	<a href="mailto:cpierri@penfield.edu">cpierri@penfield.edu</a>	(585)249-6714
F-McC (2025) Fo-Me(2027)	Mrs. Maura Driscoll	<a href="mailto:mdriscoll@penfield.edu">mdriscoll@penfield.edu</a>	(585)249-6755
<i>TBD</i> (2028) G-J (2026)	Mrs. Heide Talone	<a href="mailto:hfuchs-talone@penfield.edu">hfuchs-talone@penfield.edu</a>	(585)249-6774
McD-Si (2025) Mi-Sti (2027)	Mrs. Kate Cannon	<a href="mailto:ccannon@penfield.edu">ccannon@penfield.edu</a>	(585)249-6731
<i>TBD</i> (2028) K-Re (2026)	Ms. Amy Williams	<a href="mailto:awilliams@penfield.edu">awilliams@penfield.edu</a>	(585)249-6753
Sj-Z (2025) Sto-Z (2027)	Mr. Nate Miller	<a href="mailto:nmiller@penfield.edu">nmiller@penfield.edu</a>	(585)249-6710
<i>TBD</i> (2028) Ri-Z (2026)	Mrs. Kate Krysty	<a href="mailto:kkrysty@penfield.edu">kkrysty@penfield.edu</a>	(585)249-6713

## Course Selection

This course selection guide includes information about the courses that will be available to Penfield High School students who will be in grades 9 through 12 in 2024 -2025. Course selection should be an exciting process for students and parents but also a process that involves careful planning. Students are encouraged to take advantage of the many academic opportunities available at Penfield High School.

- Consider your course selection carefully. Choose courses to fill graduation requirements but remember to take advantage of the many opportunities available.
- Colleges often consider the academic strength of a student's program. Admissions representatives like to see students who have taken challenging courses and exceeded the minimum number of credits in math, science, and languages other than English.
- While it is important to have a challenging schedule, it is equally important to do well in your classes. Do not select more than you can handle. Earning a mastery grade (85 or higher) is a goal that students should use when selecting course levels.
- There are multiple options for students exploring vocational pathways.
- Look into the vast elective program that is offered. There are electives in technology, art, music, business, science, social studies, and physical education.
- Senior year should be used to continue to take advantage of academic opportunities. Included with a student's college application is a listing of senior year courses and can impact admission decisions.

## Course Selection Process

Since course selection is such an important process, every year a significant amount of time and effort is invested. Course offerings, staffing and budget for the high school are developed as a result of the course selection process outlined below. The offering of non-required courses is contingent on enrollment.

- **Advisement period** – During this period, teachers share information with students about course options for the upcoming school year.
- **Scheduling seminars (grades 9 – 11)**
  - December – During seminar, students learn about graduation requirements and the process for course selection for the upcoming year
  - Students are always able to schedule one on one appointments with their counselor.
- **Individual student meetings with school counselor – January – February** - School counselors will meet individually with each student to finalize course selections.
- **Parent/guardian communication** – parents/guardians receive a copy of student selections and can make changes during the specified time.

## Special Education & ENL Services

**Special Education is determined through the CSE process with a commitment to meeting students' needs in the least restrictive environment.**

**ENL (English as a New Language) services are determined per NYSED 154 regulations. This is in direct correlation to language proficiency performance on the NYSESLAT.**

## Regents Diploma

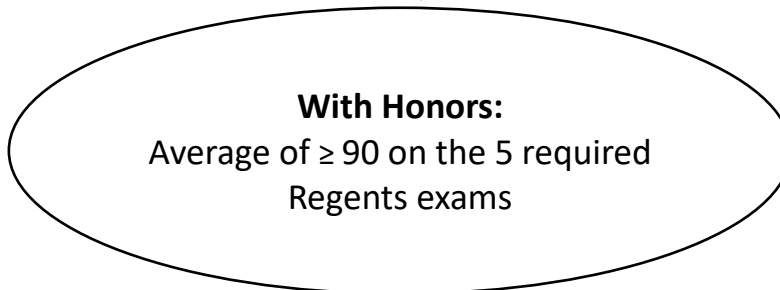
22 credits required, including:

- 4 credits English
- 4 credits Social Studies
- 3 credits Math
- 3 credits Science
- 2 credits P.E.
- 1 credit World Language
- .5 credit Health I, .5 credit Health II
- 1 credit Commencement Art/Music

5 Regents exams  $\geq 65$  or “4+1” pathway option\*

- 1 Math
- 1 Science
- English
- 1 Social Studies
- 1 Additional Regents Exam

+ ↓



**“4+1” pathway option:** Permits a student to take four Regents exams and a comparably rigorous technical, arts, or other assessment for the fifth examination required for graduation. Students eligible for this must have also passed four required Regents exams (or department-approved alternative assessments) in English, mathematics, science and social studies.

-or-

**“4+CDOS” pathway option:** Beginning June 2016 and thereafter, a student may graduate with a high school diploma if the student meets the graduation course and credit requirements; passes four required Regents exams or department-approved alternative assessments (one in each of the following subjects: English, mathematics, science and social studies) and successful completion of at least 216 hours of **Career and Technical Education (CTE) course work and/or work-based learning experiences** (of which at least 54 hours must be in work-based learning experiences). Work-Based Learning (WBL) includes activities which collaboratively engage employers and schools in providing structured learning experiences for students. <http://www.p12.nysed.gov/ciai/multiple-pathways/>

\*Consult with your counselor regarding questions pertaining to previous Regents Exam exemptions.

## Regents with Advanced Designation Diploma

22 credits required, including:

- 4 credits English
- 4 credits Social Studies
- 3 credits Math
- 3 credits Science
- 2 credits P.E.
- 3 credits World Language (or a 5 unit sequence\*\*)
- .5 credit Health I, .5 credit Health II
- 1 credit Commencement Art/Music

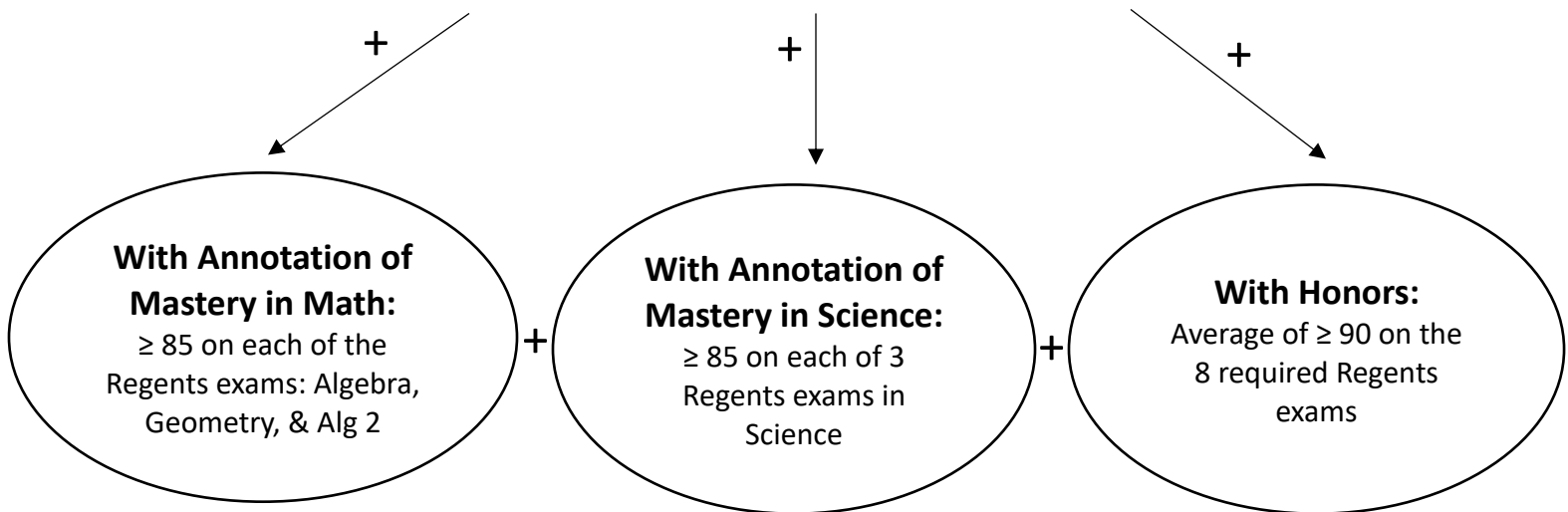
### 9 exams ≥ 65

Regents exams:

- 3 Math (Algebra, Geometry, Algebra 2)
- 2 Science (Living Environment, 1 Physical Setting)
- English
- 1 Social Studies
- 1 Additional Regents Exam

Local exam:

- World Language Checkpoint B



\*\* A five-unit sequence in art, music, occupational education, business, or technology may be substituted for the two additional units of World Language needed.

[See NYSED General Education & Diploma Requirements website](#) for more information.

\*Consult with your counselor regarding questions pertaining to previous Regents Exam exemptions.

# Four Year Planning Worksheet

Student \_\_\_\_\_ Entering Fall 20 \_\_\_\_\_

Please note: This is a planning tool designed to assist with developing students' academic programs. This plan can be updated as needed to reflect changes in students' needs, progress,

	Grade 9	Grade 10	Grade 11	Grade 12
<b>English</b> 4 credits required	English 9 R	English 10 R English Pre-AP	*English 11 R *AP Lang & Comp	2 Electives (.5 credit each): _____ /_____ AP Literature
<b>Social Studies</b> 4 credits required	Global History I R AP World History 1	*Global History II R *AP World History 2	*US History & Govt R *AP US History	Part in Govt/ Economics (.5 each) AP Govt & Economics
<b>Math</b> 3 credits required	*Algebra I R *Geometry R *Algebra II R	*Geometry R *Algebra II R *Alg II Acc/Pre Calc Acc (2 credits) Pre – Calc R Algebra II Ext.	*Algebra II R Pre – Calc R H AP Calc BC Calculus H *Alg II Acc/Pre Calc Acc (2 credits) Math III Math & Financial Applications	Pre – Calc R H AP Calc BC Calculus III Calculus H College Statistics *Algebra II R Math & Financial Applications
<b>Science</b> 3 credits required	*Earth Sci R	*Living Env R *Chemistry R  Other: _____	*Chemistry R AP *Physics R AP AP Env Sci Forensic Sci, Astronomy, Optics, Insights into Chem (.5 each) AP Biology Anatomy and Physiology	*Physics R AP *Chemistry R AP AP Env Sci Forensic Sci, Astronomy, Optics, Insights into Chem (.5 each) AP Biology Anatomy and Physiology
<b>World Language</b> 1 credit required 3 credits required toward Regents Diploma with Adv Designation	Spanish 1 2 French 2 German 2	*Spanish 3 *French 3 *German 3	College Spanish I College French I College German I	College Spanish II College French II College German II AP Spanish AP French
<b>PE</b> 2 credits required (.5 each year)	PE	PE	PE	PE
<b>Art/Music</b> 1 credit required	DDP Studio Art, Media Arts, 3D Design Orch, Band, Choir, Theory, M/Lives, Voice			
<b>Health 1 &amp; 2</b> 1 credit required (.5 each)				
<b>Electives</b>				

and interests as well as course offerings and requirements. The chart reflects eight possible periods per day, not including lunch.

**Actual student schedules are ultimately subject to course availability and students' successful completion of any necessary prerequisites.**

*\* Course culminates in Regents exam*

Notes: \_\_\_\_\_

## Four Year Plan Of Rotating Courses

Discipline	Course Name	2024-2025	2025-2026	2026-2027	2027-2028
Art	AP Art History		X		X
Business	Entrepreneurship Honors		X		X
	Sports Management Honors	X		X	
Technology	Computer Integrated Manufacturing (CIM)	X		X	
	Civil Engineering and Architecture		X		X

## Advanced Placement Course Offerings

See course details in each subject area for thorough course descriptions.

Please note: There is a fee associated with the AP Exam taken in May. Students who qualify for free/reduced lunch are eligible for a fee reduction.

### ART

AP Art History

### ENGLISH

AP Language and Composition

AP Literature and Composition

### MATHEMATICS

AP Calculus BC

### SCIENCE

AP Biology

AP Chemistry

AP Environmental Science

AP Physics C

### MUSIC

AP Music Theory

### SOCIAL STUDIES

AP African American Studies

AP Government and Politics

AP Psychology

AP United States History

AP World History

### WORLD LANGUAGES

AP Spanish

## Dual Credit Courses



Courses with dual credit opportunities are marked with this symbol

- It is the decision of the receiving institution to determine whether they will accept transfer credits from another college or university and how those credits will be applied.
- It is strongly recommended that students check with the college or university of their choice for acceptance of transfer credit before registering for college credit for a course.
- Students who receive free/reduced lunch, will be eligible for scholarships to lessen the cost of tuition. Please see your school counselor for more details.

PHS COURSE TITLE	COLLEGE	COLLEGE COURSE TITLE	CREDITS	23-24 TUITION*
<b>BUSINESS</b>				
Accounting H	Syracuse University	ACC 151 Introduction to Financial Accounting	4 (sem)	\$460
Microsoft Office	MCC	CRC 125 Microsoft Office	4 (sem)	\$328
Entrepreneurship H	Syracuse University	EEE 370 Introduction to Entrepreneurship	3 (sem)	\$345
Introduction to Business	MCC	BUS 104 Introduction to Business	3 (sem)	\$260
Career & Financial Management	MCC	ECO 103 Personal Money Management	3 (sem)	\$260
Sports Management H	Syracuse University	SPM 205 Principles & Contemporary Issues in Sport Management	3 (sem)	\$345

PHS COURSE TITLE	COLLEGE	COLLEGE COURSE TITLE	CREDITS	23-24 TUITION*
<b>ENGLISH</b>				
College Composition	MCC	ENG 101 Freshman English	3 (sem)	\$260
Creative Nonfiction H	Syracuse	WRT 114 Writing Culture: Intro to Creative Nonfiction	3 (sem)	\$345
Practices of Academic Writing	Syracuse	WRT 105: Practices of Academic Writing	3 (sem)	\$345
<b>WORLD LANGUAGES</b>				
College French 1	MCC	FRE 102 Elementary French II	3 (sem)	\$260
College German 1	MCC	GER 102 Elementary German II	3 (sem)	\$260
College Spanish 1	MCC	SPA 102 Elementary Spanish II	3 (sem)	\$260
College French 2	MCC	FRE 203 Intermediate French I	3 (sem)	\$260
College German 2	MCC	GER 203 Intermediate German I	3 (sem)	\$260
College Spanish 2	MCC	SPA 203 Intermediate Spanish I	3 (sem)	\$260

PHS COURSE TITLE	COLLEGE	COLLEGE COURSE TITLE	CREDITS	23-24 TUITION*
<b>MATH</b>				
Calculus H	Syracuse University	MAT 295 Calculus I	4 (sem)	\$460
Calculus III H	MCC	MAT 212 Calculus III	4 (sem)	\$328
College Statistics	MCC	MTH 160 Statistics I	3 (sem)	\$260
<b>SCIENCE</b>				
Phy Set:Physics with Optics	MCC	OPT 110 Intro to Optical Technology	3 (sem)	\$260
Optics	MCC	OPT 110 Intro to Optical Technology	3 (sem)	\$260
Forensic Science H	Syracuse University	CHE 113 Forensic Science	4 (sem)	\$460
<b>SOCIAL STUDIES</b>				
Economics H	Syracuse University	ECN 203 Economic Ideas and Issues	3 (sem)	\$345
Sociology H	Syracuse University	SOC 101 Introduction to Sociology	3 (sem)	\$345
<b>TECHNOLOGY</b>				
Civil Engineering & Architecture	RIT	06 08 200 Civil Engineering/Architecture	3 (sem)	\$225
Digital Electronics	RIT	06 18 200 Digital Electronics	3 (sem)	\$225
Digital Electronics	MCC	ELT 111 Introduction to Digital Electronics	3 (sem)	\$260
PLTW Design & Drawing for Production (DDP)	RIT	06 17 262 Design & Drawing for Production	3 (sem)	\$225
PLTW Design & Drawing for Production (DDP)	MCC	MET 101 Technical Graphics	3 (sem)	\$260
Principles of Engineering	RIT	06 17 269 Principles of Engineering	3 (sem)	\$225

\*the tuition amount does not take into account fees and any tuition changes that may occur for the following year

## National Collegiate Athletic Association (NCAA)

The NCAA Eligibility Center certifies the academic and amateur credentials of all college-bound student-athletes who wish to compete in NCAA Division I or II athletics. It is the responsibility of each individual student-athlete to make sure that their courses are approved by the NCAA. This should be done on a yearly basis.

The Penfield School District has a list of NCAA-approved courses on the Eligibility Center website (<https://web3.ncaa.org/ecwr3/>). Students can access this list by doing the following:

- Click the “NCAA College-Bound Student-Athlete” link to enter the site
- Navigate to the Resources tab and select US Students where you will find the link for the list of NCAA courses.
- Complete the registration process and then request a copy of your transcript be sent to the Eligibility Center by the counseling office (if you have attended more than one high school you will need one from each school).
- A final transcript will be sent to the NCAA once the student graduates.

# Art Courses And Sequence

## 5 Unit Sequence in Art

Students may earn a Regents Diploma with Advanced Designation by completing one unit of World Language and five credits in Art.

This sequence replaces the additional two units of World Language requirement.

To complete the 5-unit sequence in Art, a student must take:

- At least 1 of the foundation courses: Foundation in 3D Design, Studio in Art or Studio in Media Arts
- 4 credits that can be made up of ½ year or full year courses
- Portfolio Preparation

### FOUNDATION COURSES: FULL YEAR

Foundation  
in 3D Design

Studio in Art

Studio in  
Media Arts

### ELECTIVE COURSES: ½ YEAR (EXCEPT AP ART HISTORY AND GAME DESIGN)

There are a number of electives that extend concepts introduced in each of the foundation courses. Students can take any of these electives regardless of the foundation course that began their sequence.

#### 3D Electives

- \* Studio in Ceramics 1
- \* Studio in Ceramics 2
- \* Jewelry & Metalsmithing
- \* Advanced Jewelry & Metals
- \* Sculpture

#### 2D Electives

- \* Drawing 1
- \* Painting 1

#### Digital Electives

- \* Digital Photography
- \* Advanced Digital Photography
- \* Digital Filmmaking
- \* Animation
- \* Game Design

#### Portfolio Presentation – ½ year

Students completing an Art sequence are required to take Portfolio Preparation during the 1<sup>st</sup> semester of their senior year. This course will help the Art sequence student in preparing the required portfolio of 12-20 pieces of artwork for sequence credit.

#### AP Art History – full year

Explore major forms of artistic expression including architecture, sculpture, painting and other media from across a variety of cultures. Learn about the purpose and function of art as you develop your ability to articulate visual and art historical concepts in verbal and written form.

## Art Course Descriptions

### Full Year Art Courses

#### Studio in Art (0710)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Studio in Art is a one-year foundation course in the visual arts required by NYS to satisfy the one unit commencement level credit in art towards graduation. This course also satisfies the one-credit foundation-level course requirement for any student wishing to complete a 3 or 5 unit sequence in art. In this course, you will learn the “tools and tricks of the trade” used by all artists which will enable you to communicate your own ideas to a larger audience and understand messages in the artwork of others. The elements of art, principles of design, color theory, perspective drawing, realism and abstraction will be some of what we will explore this year. Throughout this course, you will be introduced to a variety of 2-dimensional, 3-dimensional, and digital media, along with ways to create and think about art. You will learn about art and culture from the present and the past and apply knowledge from your core classes.

#### Studio in Media Arts (0705)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Studio in Media Arts is a foundation course in the visual arts that satisfy the NYS commencement-level art requirement. This course also satisfies the one credit foundation-level course requirement for any student wishing to complete a 5 unit sequence in art. The computer, scanner, Adobe Photoshop, Illustrator, ~~Creative Cloud~~ and 3D animation software will be the primary tools used for image making in this course. Students will learn how to composite photographic images, design and publish web material, animate and manipulate objects in a three-dimensional virtual environment, and produce interactive multimedia programs. The elements of art, principles of design, color theory, the language of art criticism and the history of art are incorporated into all units. This course provides an excellent foundation for the student interested in pursuing a career in graphic design, video game design, media arts and technology.

#### Foundation in 3-Dimensional Design (0704)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

This course is perfect for the student who enjoys working with their hands to build three-dimensional forms using tools and equipment. Students will work 3-dimensionally in a variety of media which may include paper, clay, plaster, metal, fibers, wire, wood, mixed media, and found objects. The approach for each assignment ranges from functional contemporary crafts to sculpture. This course introduces and applies the elements of art and principles of design, color theory, the language of art criticism, and a foundation level of art history to all work. Projects include multiple step processes/techniques to build form in-relief and in the round. This course satisfies the NYS requirement for one unit of art or music for commencement level. This course also satisfies the one credit foundation-level course requirement for any student wishing to complete a 5-unit sequence in art.

## Art Course Descriptions

### Elective Art Classes

#### Drawing 1 (0720)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

Students will be introduced to a variety of media, themes, and ways to create and think about art. The structural elements of art, such as, line, value, color, space, and composition are taught. While drawing from direct observation is highlighted, both realism and abstraction are explored. Students will develop the necessary skills to grow technically and creatively through the study of art history, current trends, and each other. Graphite pencils, colored pencils, charcoal, pastels, markers, and conte crayon are media that may be covered. This class is highly recommended for any student who wishes to pursue a career in art, animation, illustration, and architecture. The work from this course will provide a strong foundation for a college admission portfolio.

#### Painting 1 (0721)

**PREREQUISITE: DRAWING 1 OR STUDIO IN ART**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course is a continuation of the skills learned in Drawing 1 and Studio in Art. Students are introduced to a variety of painting media: oil paint, oil sticks, acrylic paint, the technical properties of each and how to achieve various effects with each process. Art history, composition, and color theory are incorporated into every painting. Students explore personal ideas and develop a series of paintings built around a common theme. This class is highly recommended for any student who wishes to pursue an art sequence or a career in art and design.

#### Jewelry & Metals (0719)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course is for the student who likes to work three-dimensionally using tools and equipment. Jewelry & Metals allows students to design and execute unique, personal, and wearable or non-wearable objects from metal. Students will create rings, pendants or brooches, and small sculptures using a variety of techniques including sheet and wire fabrication, bezel stone setting, forming, and surface applications like etching, roll printing, piercing, enamel, patinas, and overlay. We investigate the work of contemporary and historical metalsmiths, how forms are made wearable and seen from all sides. The application of design and communicating personal inspiration are addressed for each assignment.

#### Advanced Jewelry & Metals (0722)

**PREREQUISITE: JEWELRY & METALS**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course is designed for the student who wishes to further explore jewelry and metal sculpture. A series of more advanced design problems and techniques will be presented to students to solve independently with an

## Art Course Descriptions

emphasis on personal expression. Techniques may include wax carving and centrifugal casting, enameling, soldering complex forms, hinges, and complex forming. Current and contemporary issues in metalsmithing will be investigated.

### **Studio in Ceramics 1 (0715)**

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

Students will become familiar with basic techniques and processes associated with creating ceramic artworks. Contemporary potters, ceramic sculptors, historical movements and cultures will be used as a basis for many of the studio projects explored in this class. Quality design is crucial in ceramics and will be stressed equally with building techniques. Students will become familiar with vocabulary and tools associated with the ceramic medium. Approaches will be both functional and sculptural and incorporate additive and subtractive techniques. Basic hand building techniques (pinch, coil, slab) will be explored individually and in combination in the construction of finished artwork. Functional forms (cylinders, bowls, small plates) will be created using the pottery wheel. Work on the wheel will culminate with the design & production of a functional set of mugs with pulled handles.

### **Studio in Ceramics 2 (0716)**

**PREREQUISITE: STUDIO IN CERAMICS 1**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

Students will continue their exploration of the versatile medium of clay. They will review ceramic terms, tools and techniques covered in Ceramics 1. In Ceramics 2, there will be an emphasis on creative idea development by combining personal expression with construction techniques. Students will become familiar with creating multiples using molds, forms, and stamps. Advanced wheel throwing techniques, including creating lidded forms, teapots, and large forms with handles will be explored. Advanced surface decoration and firing techniques, such as, burnishing, and Raku firing will be a component of this course. Independent research including sketching and resource image collection will be an important preliminary stage for each assignment. There will be a continuation of the history of ceramics from Ceramics 1. Ceramics 2 culminates with an exhibition.

### **Digital Photography (0709)**

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

From the act of taking a picture, to the images that appear in the darkroom, on a computer screen or from the printer, photography is a magical craft. Images will be created using a SLR digital camera. Students will learn about the composition of photographs, understanding light, camera operation, editing images using Adobe Photoshop, creating visual books, and how to apply these technical components to best communicate their ideas. This course introduces both the development of the photographic arts and how historical and current events influence photography. Images will be printed using a high-quality photographic inkjet printer. There are SLR digital cameras available for loan.

## Art Course Descriptions

### Advanced Digital Photography (0727)

**PREREQUISITE: DIGITAL PHOTOGRAPHY**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course is a continuation of the skills learned in Digital Photography. Students will expand their understanding of photographic history, idea development, design, and technique. This course explores various photographic careers, HDR image processes, infrared photography, advanced lighting, shooting, and editing techniques. Alternative approaches to image capture are explored through constructing your own pinhole camera that uses black and white film. Students will leave this course with an extensive photographic portfolio in a variety of formats. There are SLR digital cameras available for loan.

### Digital Filmmaking (0726)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

Students in this course will learn the different techniques and styles used by professionals in the movie-making industry. They will learn how to set up the scene, compose, and shoot with digital video cameras and then import their footage to edit on the computer using Adobe Premiere Pro. Students will explore different approaches to storytelling through short fiction, commercials, music video, and documentaries. Studio and production techniques including lighting, green screen effects, digital compositing will also be introduced. Filming can take place in and outside of class, depending on the assignment's needs. By the completion of the course, students will have created a number of short films, and will be responsible for a final, longer 3-minute project. This course is an excellent pairing with the Film Studies course in the English department.

### Studio in Animation (0703)

**PREREQUISITE: NONE**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course explores the styles, creativity, and techniques of producing animations. Students will learn how animations are created, from the hand-drawn techniques that Walt Disney used, to the modern methods of 2-dimensional and 3-dimensional computer animation. Students will select from the various traditional and digital animation techniques and apply them to their individual ideas and personal style. Emphasis is placed on learning how to tell a story using the tricks of illustrating and showing motion. This class includes watching and analyzing animations from the past 100 years and learning how modern technology has changed the animation process. By the end of this course, students will have created several short animations that explore a personal storyline and apply the various techniques presented in the course.

### Game Design (0686)

#### Advanced Game Design (0687)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT IN ART ♦ CREDIT: ½ UNIT IN TECHNOLOGY**

Interested in finding out how game designers make games like Call of Duty and League of Legends games? This course introduces students to the development of game design. This is a full-year course in which the student will be exploring the skills of both the animator and the programmer to create interactive games. The visual components of this course focus on design, color, character development, story boarding and 3D

## Art Course Descriptions

animation. Students will learn about the basic elements of game software development, including some basic programming skills, the design and implementation of games, and testing/debugging.

### **AP Art History (0735)**

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: AP EXAM IN MAY** ♦ **CREDIT: 1 UNIT**

**SPECIAL NOTE: This course is offered every other year and will be offered in 2025-2026.**

Advanced Placement Art History students explore works of art from the ancient world through the 21st century. The course is organized into ten cultural/chronological units from around the globe and offers students the same content as a college course in art history. The central questions in this course are:

*What is art and how is it made? Why and how does art change? How do we describe our thinking about art?* Through these essential questions, students learn of an artwork's content, context, form, and function. This will enable students to develop critical thinking and visual literacy skills with which they can find meaning from any artwork they encounter throughout their lives. Activities in the class will include readings, viewing images from a variety of media sources, comparisons, discussions, research projects, and gallery/museum visits. Students will be prepared and encouraged to take the AP Exam in the spring for college credit.

### **Portfolio Preparation (0717)**

**PREREQUISITE: Studio in Art, Studio in Media Arts, Foundation in 3-d Design** ♦ **GRADE LEVEL: 12**

**EXAMINATION: Final Exhibit Preparation and Installation** ♦ **CREDIT: ½ UNIT**

This class is for the experienced art student. It is designed to aid with college art application portfolio requirements. This course satisfies the NYS requirement for any student completing an art sequence. Students will be given the opportunity to review college application requirements, learn how to make college selections, and explore the variety of career options in the visual arts. Students will produce artwork based on their individual portfolio needs and media strengths. Artwork from previous art experiences will be revised, if needed, and included in a 10-20-piece final portfolio. Portfolios will be digitally photographed and ready for college submission to meet application portfolio requirements or for a supplement to your application. Students can take this course to create artwork on a more personal advanced level, regardless of their post high school plan. The course culminates with an exhibition and reception of all Portfolio Preparation student's artwork at PHS.

### **Sculpture (0713)**

**PREREQUISITE: NONE**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT**

For students who wish to work with their hands three-dimensionally, this course introduces basic techniques in traditional & contemporary Sculpture. Tools and equipment are used to work in wire, plaster, mixed media, and plastic. Investigation of forms in-relief and in the round will incorporate the elements and principles of design and allow the opportunity for students to address personal content and theme. The placement of sculpture in relation to its surroundings is addressed. The work of practicing professionals in the field are highlighted for each project.

# PHS Art Elective Course Visual Examples (Most ½ Year)

## 2D Courses



Painting



Drawing

## 3D Courses



Foundation in 3D Design



Jewelry & Metals



Adv. Jewelry & Metals



Sculpture



Ceramics 1



Ceramics 2



Game Design

## Digital Courses



Portfolio Preparation



Digital Photography



Adv. Digital Photography



Digital Filmmaking



Animation

## Business Course Descriptions



### Accounting Honors (0603)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

Syracuse University Project Advance (SUPA) Accounting introduces the student to financial accounting concepts that aid entrepreneurs, managers, investors and creditors in planning, operating and analyzing a business. Emphasis in this course is on the interpretation of financial statements. In addition to the use of a traditional textbook, lectures, quizzes and exams to deliver basic accounting skills, students are required to complete a comprehensive project that demonstrates their ability to analyze the financial statements of publicly traded companies and make an informed investment decision based on the analysis. By the end of the course, students are expected to understand the basic accounting information system, have the ability to read and understand a set of basic financial statements, have an awareness of the current issues in financial accounting and the impact of these issues on organizational stakeholders, and understand career opportunities available to accounting graduates.

Three Units of Syracuse University credit may be earned through a dual credit program; there is a tuition cost associated with the Syracuse University credit



### Career & Financial Management (Personal Finance) (0609)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

This course is required as part of every career and technical education program (CTE) including five-unit CTE programs used as a substitution for the additional two units of foreign language needed for a Regents Diploma with Advanced Designation. Personal Finance introduces students to the world of money management and finance. Students will learn what to do with their money by learning about their financial options and their responsibilities, and they will learn about the consequences of mismanaged finances. Three MCC credits may be earned through a dual credit program. There is a tuition cost associated with MCC credit.



### Microsoft Office (0635)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT**

This course is a practical, hands-on business course that develops Microsoft Office 2016 skills. Students will learn advanced features and apply them to realistic business-related activities. Students will become skilled in Word, Excel, PowerPoint, and Access. Students have the opportunity to obtain Microsoft Office Specialist (MOS) certification in Word. MOS certification is the industry-standard measurement for mastery of digital documentation creation and use. Microsoft certifications provide a valuable tool in advancing both academic and career prospects in a competitive market.

Three MCC credits may be earned through a dual credit program; there is a tuition cost associated with MCC credit

## Business Course Descriptions



### Introduction to Business (0627)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

This course will emphasize some of the major challenges facing businesses in today's highly competitive, fast-paced, and changing environment. Topics to be discussed include producing quality products, business strategies, forms of business ownership, diversity in the workplace, international business, business ethics, case studies, careers in business, technology, and e-commerce.

Three MCC credits may be earned through a dual credit program; there is a tuition cost associated with MCC credit.



### Entrepreneurship H (0625)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

**SPECIAL NOTE: This course is offered every other year and will be offered in 2025-2026.**

During this course, we will assess, explore, critique, and celebrate the trend of entrepreneurship.

Entrepreneurship is approached as a way of thinking and acting, as well as an attitude and behavior. Our emphasis is on entrepreneurship as a manageable process that can be applied in virtually any organizational setting. Moreover, our interest is in sustainable entrepreneurship or entrepreneurship over the life cycle of a person's entire career, of organizations as they evolve from start-up enterprises to sizeable corporations, and of societies as they move from underdeveloped to post-industrial. However, our principal focus will be on the creation of new ventures, the way they come into being, and factors associated with their success.

Three Units of Syracuse University credit may be earned through a dual credit program; there is a tuition cost associated with the Syracuse University credit.



### Sports Management H (0620)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

**SPECIAL NOTE: This course is offered every other year and will be offered in 2024-2025.**

SPM 205: Principles and Contemporary Issues in Sport Management is an introductory course offered through the Syracuse University David Falk College of Sport and Human Dynamics through Syracuse University Project Advance (SUPA). This course is an essential introduction to the field's concepts through an examination of problems and issues faced by contemporary sport managers. Students will learn to identify and describe the unique characteristics of sport; examine some of the major problems facing sport managers; develop a knowledge of what is involved in problems and solutions; apply the foundation and principles of sport management to various aspects of the industry; understand the social and ethical responsibilities involved in managing sport organizations and events; and identify career opportunities and how to prepare for them.

Three Units of Syracuse University credit may be earned through a dual credit program; there is a tuition cost associated with the Syracuse University credit

## Business Course Descriptions

### Sports Marketing (0626)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

One of the fastest growing career interests in Business is Sports Marketing. This industry is focused on using the latest research and marketing methods to help promote their product, but also identify new related products to increase overall revenue.

This course is designed to introduce the student to the role of marketing in the sports industry. There will be an emphasis on employing the basic marketing concepts and strategies as they apply to these two specific areas of study. Particular attention will be focused on the marketing of products and services through sports. Other areas that will be covered include: careers in sports marketing, marketing recreational sports, and legal issues for sports.

### Work Experience (0634)

**PREREQUISITE: COMPLETED APPLICATION (SEE COUNSELOR)** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT – 150 WORKSITE HOURS/1 UNIT – 300 WORKSITE HOURS**

The Work Study Program allows students to simultaneously work their part-time, afterschool job and earn school credit (based on hours worked) towards graduation. Students learn valuable workplace skills at their job that are transferrable to college and the world of work. In addition to on-the-job learning experiences, students will participate in a seminar class one or two times per five-day cycle. Seminar class provides related classroom instruction that will teach how academic knowledge and skills can be applied in the workplace. Students also maintain a journal of their experience.

## English Course Descriptions

### Full Year English Courses

#### English 9 R (0003)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

A required course for all incoming ninth grade students, English 9 R promotes analytical assessment of all major literary genres: novel, drama, short story, poetry, and nonfiction through thematic study that provides opportunities for both independent and collaborative work. Students develop their writing skills through varied writing tasks, including the literary essay and research paper. Students gain speaking confidence through class discussion, oral presentation, and other authentic assessment activities.

#### English 10 R (0005)

**PREREQUISITE: ENGLISH 9R** ♦ **GRADE LEVEL: 10**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

This course provides students with a developmental program in reading, writing, listening, and speaking. A variety of novels, plays, poetry, and short stories serve as the basis for literary study. Grammar, vocabulary, and spelling skills are incorporated into the curriculum. Various writing experiences allow for analysis and skill improvement.

#### Pre-AP English 2 (0070)

**PREREQUISITE: ENGLISH 9** ♦ **GRADE LEVEL: 10**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

Pre-AP English 2 requires students to apply the fundamental routines of close observation, critical analysis, and appreciation of author's craft to a host of nonfiction and literary texts. As readers, students develop a vigilant awareness of how the poet, playwright, novelist, and writer of nonfiction alike can masterfully manipulate language to serve their unique purposes. As writers, students compose more nuanced analytical essays without losing sight of the importance of well-crafted sentences and a sense of cohesion. Each unit of English 2 culminates in a writing task that reflects the rigor of similar tasks students will eventually encounter on standardized writing exams, in AP English courses, and in college classes.

#### English 11 R (0007)

**PREREQUISITE: ENGLISH 10R** ♦ **GRADE LEVEL: 11**

**EXAMINATION: REGENTS** ♦ **CREDIT: 1 UNIT**

This course is a survey of American literature. Students read plays, poems, short stories, novels, and nonfiction that reflect the trends in the development of American society. The curriculum closely adheres to the Common Core Reading and Writing Standards, and the coursework prepares students for the Regents exam given in June. The writing program covers literary, persuasive, research, narrative, and comparison writing.

## English Course Descriptions

### AP English Language & Composition (0019)

**PREREQUISITE:** ENGLISH 10R/ENGLISH PRE-AP2 ♦ **GRADE LEVEL:** 11

**EXAMINATION:** REGENTS, AP EXAM STRONGLY ENCOURAGED ♦ **CREDIT:** 1 UNIT

Advanced Placement English Language and Composition engages students to become skilled readers of nonfiction and skilled writers who compose for a variety of purposes. Through their reading and writing students will learn to analyze the interdependence between a writer's purpose, audience expectations, organizational modes, and effective style. Students will focus on three types of AP essays: analysis, synthesis, and argument. Students study graphics and images as visual rhetoric. The informed use of research materials and the ability to synthesize varied sources are integral to the course. All juniors are required to take the New York State ELA Regents Exam in June. AP English Language & Composition students also take the AP English Language and Composition exam in May.

### AP Literature & Composition (0020)

**PREREQUISITE:** AP ENGLISH LANGUAGE & COMPOSITION, ENGLISH 11R ♦ **GRADE LEVEL:** 12

**EXAMINATION:** AP EXAM STRONGLY ENCOURAGED ♦ **CREDIT:** 1 UNIT

The AP English literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in active reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Students should plan on taking the Advanced Placement examination administered by the College Board in May. They may receive placement and credit in college for advanced work completed in high school.

## English Electives

*The following electives may be taken by students in grade 12 as their senior English credit. Seniors must choose two semester-long electives if not enrolled in AP literature and composition. Creative Writing, Public Speaking, Sports Literature, and Science Fiction & Fantasy may be taken by students in grades 10-12 for elective credit.*



### College Composition (ENG 101) (0021)

**PREREQUISITE:** ENGLISH 11 ♦ **GRADE LEVEL:** 12

**EXAMINATION:** NONE ♦ **CREDIT:** ½ UNIT

This composition course concentrates on skills, usage, and the types of writing a prospective college student should know. Students will learn to make decisions based on rhetorical concerns of writer's purpose, readers' needs, and the context in which documents are read. Using sources effectively is one of the goals in this course, so research will be interwoven into pieces as a way to support ideas and connect with an audience. The course emphasizes process-based writing and reflection of individual student's learning progress. Students will read various professional and student-written essays and study the modes of writing and techniques used in each. These essays will serve as springboards to help students write pieces in which they

## English Course Descriptions

reflect, inform, and analyze. Students will also learn how to incorporate description, narration, and exposition as they develop their writing.

Three MCC credits may be earned through a dual credit program. There is a tuition cost associated with MCC credit.



### **Creative Nonfiction H (0072)**

**PREREQUISITE: ENGLISH 11 ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Creative Nonfiction H is a college-level course taught through the Project Advance program at Syracuse University.

Students explore varieties of creative nonfiction, such as memoir; biography; the personal essay; travel, science, and food writing; and “new journalism.” As its name suggests, creative nonfiction borrows elements from fiction and poetry (e.g., description, scene construction, dialogue, etc.) yet still aims to tell the truth. For a writer to “tell it slant,” however, is to acknowledge the ways in which one’s subjective viewpoint shapes what counts as “the truth” in telling a story about one’s own or another’s experiences.

Students will have the opportunity to experiment with style, genre, and subject in a writing studio environment and to read varied examples of contemporary creative nonfiction.

Three Syracuse University credits may be earned through a dual credit program. There is a tuition cost associated with Syracuse University credit.

### **Creative Writing (0023)**

**PREREQUISITE: ENGLISH 9 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Creative writing focuses on prose writing and how professional writers create stories. Pre-writing, drafting, revising, and peer review are part of the creative writing process and are required as students learn to hone their craft. Although students may write in various genres, the focus is primarily on short story writing.

Students are encouraged to publish in a variety of sources. A final project is required. Individual student skills are a focus of the course as students learn to find their literary voice.

### **Introduction to Film Studies (0030)**

**PREREQUISITE: ENGLISH 11 ♦ GRADE LEVEL: 11-12**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

This course provides an introduction to film studies and concentrates on film form, elements of style, and genre-based approaches to film analysis. The course spans silent and sound eras and offers examples from the Hollywood motion picture industry. In analyzing film, students will examine elements of plot, setting, style, and point of view. Class activities include viewing, researching, and analyzing films. A variety of class and independent assignments emphasize original critical thinking and analysis in discussion and writing. The course includes short papers, quizzes, and tests.

***Attention student athletes: This course is not an NCAA approved core course***

## English Course Descriptions

### Music as Literature (0097)

**PREREQUISITE: ENGLISH 11 ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

This class will explore the deeply intertwined worlds of music and literature through class discussions, written reflections, critical reading, and analytical writing. Students will engage in thematic studies of different genres of music and examine how they intersect with different literary movements. Students will read fiction, non-fiction, and poetry inspired by, influenced by, and focused on music. Students will analyze songs as text. There will be a research component and a final project.

***Attention student athletes: This course is not an NCAA approved core course***



### Practices of Academic Writing (0069)

**PREREQUISITE: ENGLISH 11 ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Students learn strategies of critical academic writing in various genres, including analysis, argument, and researched writing. Students learn to develop ideas through the choices they make as writers, from invention to making and supporting claims, to sentence-level editing, to designing finished print and digital texts. The course challenges students to understand that effective communication requires people to be aware of the complex factors that shape every rhetorical context, including issues of power, history, difference, and community.

Students explore the histories and knowledges that shape the positions from which they write and that inform the perspectives of various audiences, and they learn to recognize that writing as a true communicative act may potentially change the perspectives of both the writer and audiences. Developing this understanding helps students perceive ways in which their work as writers extends beyond the immediate requirements of the classroom and prepares them for effective engagement with issues in the workplace, local community, and global society. The writing course is a site of active learning where students have responsibility for their own progress and for that of their peers. The course is organized into three units, in which students engage in various activities that culminate in a formal paper for each unit and a writing portfolio.

Three Syracuse University credits may be earned through a dual credit program. There is a tuition cost associated with Syracuse University credit.

### Public Speaking (0044)

**PREREQUISITE: ENGLISH 9 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: FINAL SPEECH ♦ CREDIT: ½ UNIT**

This course focuses on many aspects of public speaking. Students will engage in both formal and informal speaking activities and come to understand the value of quality verbal communication. The course challenges students to convey their ideas to an audience in clear, concise, and accurate terms while practicing the physical aspects of speech delivery in order to maintain the audience's interest. In essence, the course aims to answer the question: What is effective communication? Coursework includes formal speech assessments, reading and writing homework, and a final speech as the final exam.

## English Course Descriptions

### Science Fiction & Fantasy (0068)

**PREREQUISITE: ENGLISH 9 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: PROJECT ♦ CREDIT: ½ UNIT**

This twenty-week course serves as a critical examination of the science fiction and fantasy genres. Selections from celebrated sci-fi and fantasy authors including Orson Scott Card, J.R.R. Tolkien, as well as many others will serve as the subjects for in-depth literary analysis and as opportunities for creative expression. This reading-intensive course affords the student the opportunity to examine authors' craft and how the themes that pervade the surreal literature are invariably connected to contemporary society. A culminating project is required in lieu of a final exam.

### Shakespeare (0032)

**PREREQUISITE: ENGLISH 9 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Can you speak *Shakespearese*? Why is Shakespeare's language so tough and yet so beautiful? Is it possible to have fun with Shakespeare? Students who take this interactive course will discover the thrills and the curiosities of the world's greatest literary figure. From a study of the life and times of Shakespeare to a thematically organized array of plays, sonnets, and films, students will investigate the fanciful and profound worlds created by the Bard of Avon. Some of these may include Shakespeare's *Hamlet*, *Othello*, *King Lear*, *Julius Caesar*, *The Merchant of Venice*, *Much Ado About Nothing*, *Twelfth Night*, *The Taming of the Shrew*, *Henry V*, and *The Tempest*. Student activities will consist of seminar discussions, class dramatizations of plays, student and small group presentations and investigations, and film dramatizations of plays. Students will complete a final paper or project. Some literature may contain sensitive content.

### Sports Literature (0034)

**PREREQUISITE: ENGLISH 9 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: PROJECT ♦ CREDIT: ½ UNIT**

Most Americans probably either participate actively in some sport or watch their favorite sporting event without being aware in any real sense of the wide application sports can have to their lives. In this course, students will read and analyze a variety of sports literature, engage in essay and creative writing about sports, and discuss and debate topics relating to sports. Novels, biographies, short stories, essays, newspaper columns, magazine articles, TV and radio broadcasts, movies, the Internet, and any other medium communicating the topic of sports will be studied. Units of study include: the Sports Fan, Sports Heroes and Hall of Famers, America's Pastime, Sports Controversy, and Hoops. Students complete a final project.

## Health Course Descriptions

### Health I (0902)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT**

Students will have the opportunity, to explore real-life, contemporary health topics and information. These learning experiences will help to develop a foundation of skills that will reduce risks and empower students to begin to positively impact their life-long health and wellness. In addition, students will receive basic hands-on CPR instruction and state mandated alcohol, tobacco, and nicotine education.

The curriculum covers the mandated New York State Education Department skills and standards.

Successful completion of Health I is required for graduation.

### Health II (0903)

**PREREQUISITE: HEALTH I** ♦ **GRADE LEVEL: 11-12 ONLY**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT**

Students will participate in advanced learning experiences that will enhance the foundation introduced in Health I. Using an active wellness-based approach, students will participate in challenging their personal growth and well-being with understandings in topics such as mental health, stress management, healthy relationships, abuse disorder prevention and sexual violence prevention. Expanded advanced human growth and development connections are made while students explore the contemporary content of the course. The curriculum delivers Health Education skills and standards mandated by the New York State Education Department. Successful completion of Health II is required for graduation.

### Reconnecting Youth (0906)

**PREREQUISITE: COUNSELOR RECOMMENDATION** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: NONE** ♦ **CREDIT: ½ UNIT**

A Peer Group Approach to Building Life Skills (RY) is a school-based prevention program for students ages 14-19 years that teaches skills to build resiliency against risk factors and control early signs of substance abuse and emotional distress.

RY also incorporates several social support mechanisms for participating youth: social and school bonding activities to improve teens' relationships and increase their repertoire of safe, healthy activities; development of a crisis response plan detailing the school system's suicide prevention approaches; and parent involvement, including active parental consent for their teen's participation and ongoing support of their teen's RY goals.

The course curriculum is taught by an RY Leader, a member of the school staff or partnering agency who has abilities as a "natural helper," has healthy self-esteem, is motivated to work with high-risk youth, and is willing to comply with implementation requirements.

## Mathematics Course Descriptions

### Algebra I (0406)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: ALGEBRA I REGENTS EXAM IN JUNE** ♦ **CREDIT: 1 UNIT**

Algebra I provides a formal development of the algebraic skills and concepts for students to succeed in advanced mathematics courses. Students develop a strong foundation in working with linear equations in all forms, extending solution techniques to simple equations with exponents. Students explore functions, including notation, domain and range, multiple representations, and modeling. Through the comparison of linear and exponential functions, students contrast the concepts of additive and multiplicative change. Students then apply what they have learned to linear models of data, analyzing scatterplots and using lines of best fit to apply regression techniques. During the course students also explore rational exponents, quadratic and exponential expressions, and receive an introduction to non-linear functions, with a heavy emphasis on quadratics. Students will be using TI-Nspire graphing calculators in class. If there is a concern about purchasing a graphing calculator, please contact your teacher.

### Geometry (0411)

**PREREQUISITE: ALGEBRA I** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: GEOMETRY REGENTS EXAM IN JUNE** ♦ **CREDIT: 1 UNIT**

This course formalizes what students have learned about geometry in the middle grades, with a focus on reasoning and making mathematical arguments. Mathematical reasoning is introduced with a study of triangle congruency, including exposure to formal proofs, and geometric constructions. Afterward, students extend what they have learned to other essential triangle concepts, including similarity, right triangle trigonometry, and the Laws of Sines. Moving on to other shapes, students justify and derive various formulas for circumference, area, and volume, as well as cross-sections of solids and rotations of two-dimensional objects. Students then make important connections between geometry and algebra, including special triangles, slopes of parallel and perpendicular lines, and parabolas in the coordinate plane, before delving into an in-depth investigation of the geometry of circles. Students will be using TI-Nspire graphing calculators in class. If there is a concern about purchasing a graphing calculator, please contact your teacher.

### Math III (0410)

**PREREQUISITE: GEOMETRY** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

Students who enroll in Math III will continue to build a strong algebraic foundation by studying linear, quadratic, and rational functions. Math III is designed to help students complete the foundations of their algebraic frameworks developed in Algebra 1 and Geometry. Math III is an interactive, student-centered learning environment geared to learners who need to fill in the missing pieces before choosing a pathway to the next level of Mathematics. After successful completion of this course, students wishing to obtain a Regents Diploma with Advanced Designation must take Algebra II or Algebra II Extended the following year. This course also fulfills one out of the three math credits needed for a Regents Diploma. A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

## Mathematics Course Descriptions

### Algebra II Extended (0442)

**PREREQUISITE: GEOMETRY ♦ GRADE LEVEL: 11-12**

**EXAMINATION: ALGEBRA II REGENTS EXAM IN JUNE ♦ CREDIT: 1 UNIT**

Students are scheduled in Algebra II Extended to provide additional support through extended instruction. Students receive an additional 80 minutes of instruction per week. The material contained in Algebra II Extended is the same as Algebra II.

A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

Recommended Achievement Level: 75 or higher on the Algebra I Regents Exam and teacher recommendation.

### Algebra II (0440)

**PREREQUISITE: GEOMETRY ♦ GRADE LEVEL: 9-12**

**EXAMINATION: ALGEBRA II REGENTS EXAM IN JUNE ♦ CREDIT: 1 UNIT**

Students continue to build on their work from Algebra I with linear, quadratic, and exponential functions. They also extend their repertoire of functions to include polynomial, rational, and radical functions. Students continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. The last two units introduce Statistics and gives students the foundation for a college level course in data analysis.

A TI-Nspire graphing calculator is required for this course. If there is a concern about purchasing a graphing calculator, please contact your teacher.

Recommended Achievement Level: 75 or higher on the Algebra I Regents Exam and teacher recommendation.

### Algebra II Accelerated (0443)

### Pre-Calculus Accelerated (0414)

**PREREQUISITE: GEOMETRY ♦ GRADE LEVEL: 9-12**

**EXAMINATION: ALGEBRA II REGENTS EXAM IN JANUARY, LOCAL PRE-CALCULUS EXAM IN JUNE ♦ CREDIT: 2 UNITS**

This two-credit course will provide a double period class (80 minutes) in math every day. The first semester's work is that of Algebra II; the second semester will be Pre-Calculus. Please look at the course descriptions for these courses separately for more information. Students will be expected to take the Algebra II Regents Exam in January and a local Pre-Calculus final in June. By taking this course, students will be prepared to take a Calculus course the next year. A TI-Nspire graphing calculator is required for this course. If there is a concern about purchasing a graphing calculator, please contact your teacher.

Recommended achievement level: 90 or higher on Algebra I Regents exam, 85 or higher in Algebra and Geometry courses and teacher/counselor recommendation.

### Math & Financial Applications (0605)

**PREREQUISITE: NONE (MUST HAVE PASSED THE ALGEBRA I REGENTS EXAM TO USE AS A 3<sup>RD</sup> UNIT OF MATH) ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MAY COUNT AS A 3<sup>RD</sup> UNIT OF MATH)**

## Mathematics Course Descriptions

This is an introductory course in Financial Mathematics. The focus is on active and practical use of mathematics and business applications. The course will give students an idea of the monetary adventures that take place after high school and how to make sensible financial decisions. Students will improve their financial literacy through studying the basics of budgeting, interest rates, loans, and more. Other topics of study include payroll, annuities, credit, and investments. A four-function calculator (or better) is required for this course.

**Attention student athletes: This course is not an NCAA approved core course**

### Pre-Calculus (0416)

**PREREQUISITE: ALGEBRA II ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

This is a full-year course that is the capstone of the NYS High School Math Common Core curriculum. Completion of this course will provide the student with “college and career readiness” for their post-graduate work. Topics include: complex numbers, vectors, matrices, polynomial and rational expressions, trigonometric functions, and probability.

This course is designed for students with a serious interest in math and/or science and who intend to take calculus as a college freshman. A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

### Pre-Calculus Honors (0417)

**PREREQUISITE: ALGEBRA II ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

This is a full-year honors-level pre-calculus course which goes beyond the topics of Pre-Calculus to further prepare students for Calculus. Additional topics include Modeling with Functions, Gaussian Elimination, Integration, Polar, and Parametric Equations. Compared to Pre-Calculus, student work will feature a deeper investigation and enrichment, especially with Derivatives and Vectors.

This course is designed for students with a serious interest in math and/or science and who intend to take calculus the following year. A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

Recommended achievement level: 90 or higher on the Algebra II exam and teacher recommendation



### Calculus H (SUPA) (0433)

**PREREQUISITE: PRE-CALCULUS ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

The mathematical content of this program is typical of most traditional first-year calculus courses. The concepts of limit, continuity, derivative, anti-derivative, and definite integral are thoroughly developed, and are then applied to the traditional collection of functions: polynomial, rational, trigonometric, and exponential, together with their inverses, compositions, and algebraic combinations. The results are then applied to a wide variety of problems from geometry, physics, and other sciences. These include maximum and minimum problems, related rates, areas, volumes and surfaces of revolution, arc length, work, fluid pressure, velocity and acceleration, and exponential growth and decay. Curve sketching is introduced at the very beginning and emphasized throughout, as it is strongly believed that this is an important skill for any calculus student to acquire.

## Mathematics Course Descriptions

This course is a full year honors course and is the same as MAT 295 at Syracuse University. A student who is successful in this course will receive one unit of credit at the high school level and, if paying for the course, four units of credit with Syracuse University.

### AP Calculus BC (0420)

**PREREQUISITE: PRE-CALCULUS ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

AP Calculus BC is a college-level calculus course completing material for both Calculus I and Calculus II. Students will analyze limits, derivatives, integrals, polar & parametric equations, and numerical and algebraic series. This analysis will occur theoretically and with real-world problems represented graphically, numerically, analytically, and verbally and using definitions and theorems to build arguments and justify conclusions. This course moves at a fast pace and requires students to build deep understanding quickly. Students are expected to take the AP exam in mid-May. The exam gives them the potential to earn both Calculus I and II credit for college, depending on their score on the exam.

A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

Recommended achievement level: a grade of 90 or higher in Pre-Calculus Honors



### College Statistics (0449)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ALGEBRA II ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

The purpose of this course is to introduce the techniques of Statistics as they apply to the solutions of practical problems in various fields. This introduction is presented with particular attention to statistical vocabulary, interpreting statistical formulas and graphs, and representing statistics symbolically, visually, numerically, and verbally. Students gain a foundational understanding from the judicious use of formulas for small data sets, with the focus on the interpretation of the results. Topics of basic probability are included only as needed. A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

Three MCC credits may be earned through a dual credit program. There is a tuition cost associated with MCC credit. Students also have the opportunity to prepare for the Statistics AP Exam. This is optional and requires working on extra topics outside of class.



### Calculus III (0432)

**PREREQUISITE: AP CALCULUS BC**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

This is a rigorous course on the calculus of functions of more than one variable, partial differentiation, multiple integrals, polar coordinates, solid analytic geometry and vectors, and the calculus of vector-valued functions. A TI-Nspire graphing calculator is required for this course. If there is concern about purchasing a graphing calculator, please contact your teacher.

Four MCC credits may be earned through a dual credit program (a score of 3 or higher on the AP Calculus BC exam is required to qualify for MCC credit). There is a tuition cost associated with MCC credit

# Music Courses And Sequence

## 5 Unit Sequence in Music

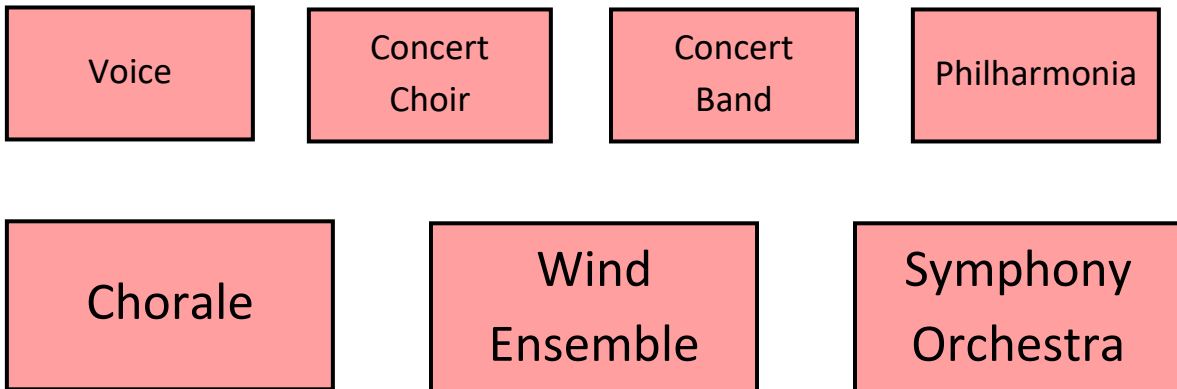
Students may earn a Regents Diploma with Advanced Designation by completing one unit of World Language and five credits in Music.

This sequence replaces the additional two units of World Language

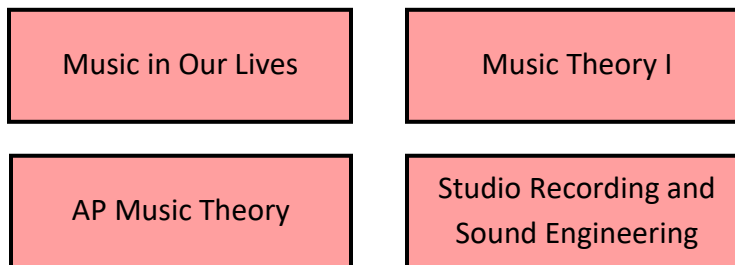
To complete the 5-unit sequence in Music, a student must take:

- At least 2 units from the area of Skill Development
- At least 2 units from the areas of Musical Knowledge/Attitude Development
- 1 additional unit from any of the areas

### SKILLS DEVELOPMENT



### MUSICAL KNOWLEDGE/ATTITUDE DEVELOPMENT



## Music Course Descriptions

### Vocal Music

#### Concert Choir (0804)

**PREREQUISITE: STUDENTS MUST BE ABLE TO MATCH PITCH ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Concert Choir is open to all students in grades 9-12 who wish to participate in a vocal ensemble. Concert Choir is a full-year course that meets daily. Students learn and apply the fundamentals of healthy vocal production through physical, breathing, and vocal exercises. Students are given the tools to develop greater clarity, freedom, maturity and consistency in their tone quality, while learning how to balance and blend their voices in a choral setting. Musicianship skills are practiced through the study of the musical language and includes daily ear training, musical analysis and sight-singing exercises using solfege syllables. A wide variety of high quality choral literature is studied and performed at our three concerts during the school year. This course includes scheduled evening performances.

Prior choral experience is recommended. (*Note: Students wishing to enroll in Concert Choir who cannot match pitch are advised to enroll in Solo Voice Class, where individual vocal skills can be addressed.*)

#### Chorale (0808)

**PREREQUISITE: CONCERT CHOIR OR SOLO VOICE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Chorale is a vocal ensemble designed for advanced choral students. Selection for Chorale is by recommendation by the vocal director. Chorale is a full year course that meets daily. Challenging choral literature in a variety of styles from classical to contemporary is studied and performed, therefore it is expected that all members of Chorale are able to read music. Music analysis, ear training, and sight-reading skills are studied and applied at an advanced level using solfege syllables (including major and minor modes, as well as chromaticism). Students study and develop the skills required to produce a more mature, expressive, balanced, blended, energized choral sound. A strong emphasis is placed on singing with depth, clarity, warmth and consistency throughout the vocal range through the practice of daily physical, breath and vocal exercises. This course includes scheduled evening performances. There are approximately four to five concerts each school year.

#### Solo Voice (0800)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Voice Class develops each student's solo vocal technique. Students will learn to sing with healthy posture, a resonant tone, and clear articulation. Students will develop musicianship and literacy through ear training, music analysis and sight reading. Students will also learn to analyze a musical performance and provide thoughtful, specific feedback.

The following units will be studied in Solo Voice: English Art Song I, Musical Theatre songs composed before 1960, Italian Art Song I, NYSSMA Manual Literature, English Duets, and Disney Songs.

\* Seniors who have had at least one year of Voice Class are invited to perform in the annual "Evening of Vocal Music" Senior Recital.

## Music Course Descriptions

### Intermediate Voice (0801)

**PREREQUISITE: SOLO VOICE (UNLESS RECOMMENDED FOR THIS CLASS BY THE VOICE TEACHER) ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Voice Class develops each student's solo vocal technique. Students will learn to sing with healthy posture, a resonant tone, and clear articulation. Students will develop musicianship and literacy through ear training, music analysis and sight reading. Students will also learn to analyze a musical performance and provide thoughtful, specific feedback.

The following units will be studied in Intermediate Voice: English Art Song II, Italian Art Song II, Musical Theatre songs written between 1961-1990, NYSSMA Manual Literature, Duets, and Disney Songs.

\* Seniors who have had at least one year of Voice Class are invited to perform in the annual "Evening of Vocal Music Senior Recital".

### Advanced Voice (0802)

**PREREQUISITE: SOLO VOICE AND INTERMEDIATE VOICE (UNLESS RECOMMENDED FOR THIS CLASS BY THE VOICE TEACHER) ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Voice Class develops each student's solo vocal technique. Students will learn to sing with healthy posture, a resonant tone, and clear articulation. Students will develop musicianship and literacy through ear training, music analysis and sight reading. Students will also learn to analyze a musical performance and provide thoughtful, specific feedback.

The following units will be studied in Advanced Voice: English Art Song III, German/French Art Song, Musical Theatre songs from 1991 through the present, NYSSMA Manual Literature/ Senior Solo Literature, Duets, and Disney Songs.

\* Seniors who have had at least one year of Voice Class complete their senior year by performing a solo in the annual "Evening of Vocal Music Senior Recital".

### Jazz Choir (0812)

**PREREQUISITE: STUDENTS MUST PARTICIPATE IN CONCERT CHOIR OR CHORALE, OR VOICE CLASS, AS WELL AS AUDITION IN JUNE OF THE PREVIOUS SCHOOL YEAR ♦ GRADE LEVEL: 9-12**

**EXAMINATION: NONE ♦ CREDIT: ½ UNIT**

Jazz Choir is a vocal ensemble for students who possess independent musicianship, a high level of vocal technique, and strong music reading skills. The Jazz Choir performs in a variety of jazz styles with a focus on vocal improvisation. Students study and apply stylistic techniques and jazz articulations within the Jazz Choir repertoire. Three to four performances are scheduled throughout the school year, including the annual Jazz Fundraiser concerts. A concert calendar will be provided to students at the first Jazz Choir rehearsal in September. Although the Jazz Choir is an auditioned ensemble that meets after school, it is an elective course for which students receive a grade and .5 credit. Consistent attendance and participation in all rehearsals and performances is critical.

**Course Schedule: Jazz Choir rehearses from 2:20-3:00 PM every Tuesday and Thursday.**

## Music Course Descriptions

### Select Treble Choir (0832)

**PREREQUISITE: STUDENTS MUST BE CURRENTLY ENROLLED IN CONCERT CHOIR OR CHORALE OR HAVE BEEN A MEMBER IN GOOD STANDING OF CONCERT CHOIR OR CHORALE (AT DIRECTOR DISCRETION) FOR AT LEAST 1 FULL SCHOOL YEAR IN CASES WHERE A SCHEDULING ISSUE IS PRESENT. STUDENTS WILL AUDITION IN JUNE OF THE PREVIOUS YEAR. ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: ¼ UNIT**

Select Treble Choir is an auditioned ensemble for treble voices who possess independent musicianship, a secure vocal technique and strong music reading skills. Singers study a variety of advanced choral literature especially for treble voices. Although Select Treble Choir is an auditioned ensemble that meets before school, it is an elective course for which students receive a grade and ¼ credit. Consistent attendance and participation in all rehearsals and performances are requirements for membership in this ensemble. **Course Schedule: Select Treble Choir rehearses from 6:45-7:25 AM every Friday during the school year.**

## Classroom Music Courses

### Music Theory I (0846)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Music Theory I is required for a three credit sequence in music. Designed for students in grades 9-12, Music Theory I covers primary elements of the language of western tonal music: rhythm, melody, and harmony. Students will learn the basics of musical notation and composition, ear training, analysis of music for four voices in traditional SATB chorale style, conducting, rhythmic, melodic, and harmonic dictation, and functional skills on keyboard. Additionally, the learning and application of several music software programs is an integral component of the curriculum.

### AP Music Theory (0847)

**PREREQUISITE: SUCCESSFUL COMPLETION OF MUSIC THEORY I, OR TEACHER RECOMMENDATION**

**♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

In addition to Music Theory I, this course is required for a five credit sequence in music. AP Music Theory is designed to take students with initial music theory experience through the equivalent of a freshman year of college music theory. Students build on Music Theory I content through the rigorous study of western tonal music practices. Reading for conceptual understanding and vocabulary building, musical composition, dictation, structural analysis, and ear training and sight-singing for aural skill development are emphasized. Extensive focus is given during the third quarter to practice and prepare for taking the AP Music Theory Exam in May.

### Music In Our Lives (0827)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

Music in Our Lives is a full-year course that covers the basic musical skills and information that will enable students to become functionally and knowledgeably musical both in and out of school, now and throughout

## Music Course Descriptions

their lives in ways that are relevant to them. The course's content is based on student interests, so it shifts slightly from year to year. Core course components include critical musical listening and analysis, exposure to a variety of artists and styles for discussion and research, playing instruments such as guitar, keyboard, and percussion, studying basic elements of music theory and literacy, and musical composition/songwriting. Various technologies (music software programs, online resources and applications, and multi-track recording equipment) will be learned and used extensively.

### Studio Recording and Sound Engineering

**PREREQUISITE: AUDITION OR INSTRUCTOR PRE-APPROVAL ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Studio Recording and Sound Engineering is a full-year course that covers the skills and information that will enable students to create high quality recordings ranging from solo artists to group performances. Students will learn the basics of acoustics and how they can be manipulated by modern technologies to record and create high quality recordings. They will become familiar with professional equipment and techniques standard to the recording industry and will have the opportunity to work with comparable hardware and software in the PHS Recording Studio. Proficiency of the Digital Audio Workspaces (DAWs) StudioOne will be a focus of study, including editing and mixing techniques for music production. All members enrolled will be both Audio Engineer and Performer, so selection will be by audition or pre-approval by the instructor.

### Band and Jazz Ensembles

#### Concert Band (0820)

**PREREQUISITE: STUDENT SHOULD HAVE PREVIOUS SUCCESSFUL BAND EXPERIENCE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

The Concert Band is the intermediate level band at the high school, performing a varied repertoire and presenting several concerts throughout the year. Auditions are not required. All members participate in the high school rotating group lesson program and are required to work toward developing a high skill level. As part of the band unit of credit, students are encouraged to sing one day a week in Concert Choir. These courses include scheduled evening performances.

#### Wind Ensemble (0823)

**PREREQUISITE: MEMBERSHIP BY AUDITION ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

The Wind Ensemble performs difficult repertoire and presents several concerts throughout the school year. Selection to the Wind Ensemble is by audition. Advanced incoming freshmen may audition for the group in the spring of 8th grade, by recommendation only. All members participate in the high school group lesson program and are required to maintain a high skill level. Some members of the Wind Ensemble are selected to comprise the wind and percussion sections of the Symphony Orchestra. As part of the band unit of credit, students are encouraged to sing one day a week in Chorale. This course includes scheduled evening performances.

## Music Course Descriptions

### Jazz Ensemble (0823)

### Jazz Democracy (0829)

**PREREQUISITE SELECTION TO JAZZ ENSEMBLE IS BY AUDITION. SELECTION TO JAZZ DEMOCRACY IS OPEN TO ALL MEMBERS OF THE MUSIC PROGRAM EXCEPT THAT ALL RHYTHM SECTION MUSICIANS MUST AUDITION FOR EITHER JAZZ BAND. AUDITIONS ARE HELD THE FIRST WEEK OF SEPTEMBER ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

The Penfield High School Jazz Bands provide opportunities for musicians of all ability levels to perform jazz and contemporary music. Assignment to one of the jazz bands is based on audition. Both Jazz Bands perform several concerts throughout the year including the annual Jazz Fund Raiser Concerts. Students may sign up in September. Attendance in all Jazz Ensemble and Jazz Democracy rehearsals and concerts is a requirement of the course. Students must be enrolled in one of the following ensembles to be considered for membership in the jazz program: Concert Band, Wind Ensemble, Philharmonia Orchestra, or Symphony Orchestra. Exceptions to this rule include pianists, guitarists, and electric bassists.

**Course Schedule: Jazz Ensemble and Jazz Democracy rehearse from 2:30-3:30 pm every Monday and Wednesday during the school year.**

## Orchestra

### Philharmonia Orchestra (0821)

**PREREQUISITE: STUDENTS SHOULD HAVE PREVIOUS SUCCESSFUL ORCHESTRA EXPERIENCE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

The Philharmonia Orchestra is the intermediate orchestra at the high school. Students prepare and perform five to seven concerts during the school year. Auditions are not required. Fundamental orchestral performance skills and techniques are emphasized through the study of classical, pop, and contemporary music. All members participate in the high school rotating group lesson program and are required to work towards a high skill level. As part of the orchestra unit of credit, students are encouraged to sing one day a week in choir. This course includes scheduled evening performances.

### Symphony Orchestra (0822)

**PREREQUISITE: MEMBERSHIP BY AUDITION ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT (MEETS 1 UNIT COMMENCEMENT CREDIT)**

The Symphony Orchestra is the most advanced orchestra at the high school, performing difficult repertoire and presenting five to seven concerts a year. Selection to the Symphony Orchestra is by audition. Advanced incoming freshmen may audition for the group in the spring of the 8th grade, by recommendation. All members participate in the high school rotating group lesson program and are required to maintain a high skill level. As part of the orchestra unit of credit, students are encouraged to sing in choir one day a week. This course includes scheduled evening performances.

## Physical Education Course Descriptions

### Physical Education 9/10 (0900, 0901)

**CREDIT: ¼ UNIT**

Students in the ninth and tenth grades will receive a core program based on the philosophy that a physically educated student needs the experience of a wide variety of activities before their junior year. This means that ALL ninth and tenth graders will receive the exact same activities over a two year period. The emphasis of this course will be on developing and improving skills and will be supported by assessments.

### Physical Education 11-12 Credit Offerings

#### Unified PE (0983, 0984)

**CREDIT: ¼ UNIT**

Like a Unified Sports Team, Unified Physical Education combines general education students with special education students who have limitations in traditional physical education classes. Students work together to create a cohesive, inclusive environment to meet the physical education needs of all students. The Unified Physical Education class strives to create an environment where APE students and general education PE students can excel and flourish in a mutually respectful, cooperative, and safe atmosphere.

#### Yoga (0988)

**CREDIT: ¼ UNIT**

This course is designed to introduce students to Foundational yoga. Postures are practiced aligning, strengthen and promoting flexibility in the body. Breathing techniques and meditation are also integrated. Expect to be challenged both mentally and physically.

#### Adventure Learning (0972)

**CREDIT: ¼ UNIT**

Adventure Learning is a course in which the student will Integrate Challenge by Choice into their lives, understand how goal setting impacts behavior, use their social group to support goal attainment, learn the technique of giving and receiving feedback, Practice giving and receiving feedback with peers, manage a group problem-solving methodology and understand the value of reflecting on and transferring lesson content. Initiatives, problem solving activities, and high and low ropes course elements are embedded throughout the course.

#### Dance / Personal Defense: (0980)

**CREDIT: ¼ UNIT**

This course is designed to further develop the student's technical skill, creative capabilities and understanding of rhythmic and dance activities. In addition, it will instruct students on basic self-defense with practical application to everyday life.

#### Fitness for Life (0955)

**CREDIT: ¼ UNIT**

Fitness for Life is structured around the 5 Components of Physical Fitness. You will learn about each type of fitness (Cardiovascular, Muscular Strength, Muscular Endurance, Flexibility, and Body Composition) components as well as what types of activities are best for developing them. You will also learn how physical

## Physical Education Course Descriptions

activity and other healthy lifestyle choices can improve your health and wellness. Our activities may include functional training, game play, rollerblading, cycling, water fitness, Zumba, yoga, Pilates and various other fitness workouts/activities. Meets Fitness Elective Requirement.

### **Golf and Racquet (0959)**

**CREDIT: ¼ UNIT**

Golf and Racquet is a course based on teaching competencies for students' future use, focusing on individual sports such as tennis, table tennis, table ball, eclipse ball, golf, badminton, Frisbee golf, pickleball, and racquetball. Students will learn skill development, teaching and coaching strategies, and lifetime fitness benefits.

### **Outdoor Experience (0974)**

**CREDIT: ¼ UNIT**

This course is designed to give the students the opportunity to learn a variety of outdoor recreational skills as well as experience and enjoy the environment in which we live. Activities may include orienteering, GPS systems, mountain biking, backpacking, kayaking, cross-country skiing, snowshoeing, ropes course, camping and archery.

### **Lifeguarding (0975)**

**PREREQUISITE: 300-YARD SWIM/2 MIN TREADING WATER**

**CREDIT: ¼ UNIT**

This full semester course certifies students in American Red Cross Lifeguarding. Students need to be strong swimmers and must be able to do the breaststroke with whip kick, sidestroke with scissor kick, and freestyle with rotary breathing. The students must be able to tread water using eggbeater kick and surface dive and retrieve a 10-pound brick. This course includes CPR for the Professional Rescuer and standard first aid. Based on American Red Cross training requirements, students will need to purchase a pocket mask. With the successful completion of course requirements, students will have the option to earn American Red Cross Lifeguard Certification at the cost of \$45.

The primary purpose of the American Red Cross Lifeguarding course is to provide entry-level lifeguard participants with the knowledge and skills to prevent, recognize and respond to aquatic emergencies and to provide professional-level care for breathing and cardiac emergencies, injuries, and sudden illnesses until emergency medical services (EMS) personnel take over. This program offers a choice of Lifeguarding /First Aid/CPR/AED courses to meet the various training needs of a diverse audience.

### **Sport Education A (0964) (1<sup>st</sup> Semester)**

**CREDIT: ¼ UNIT**

The sport education elective is a highly competitive class that has several distinctive characteristics. These include seasons: a season involves a series of consecutive lessons (for example, 14 to 20), and involves pre-season activities, practice and competition; team affiliation: students become members of teams for the duration of the season and assume roles of coach, manager, trainer, official, or equipment manager, as well as being players; formal competition: the competition involves pre-season preparation, in-season competition, and a culminating event or festival that provides an appropriate climax to the end of the competitive season; keeping records: records may include outcomes of matches and player performance. Students will participate in football, soccer (indoor), basketball, and volleyball.

## Physical Education Course Descriptions

### **Sport Education B (0966) (2<sup>nd</sup> Semester)**

**CREDIT: ¼ UNIT**

The sport education elective is a highly competitive class that has several distinctive characteristics. These include seasons: a season involves a series of consecutive lessons (for example, 14 to 20), and involves pre-season activities, practice and competition; team affiliation: students become members of teams for the duration of the season and assume roles of coach, manager, trainer, official, or equipment manager, as well as being players; formal competition: the competition involves pre-season preparation, in-season

competition, and a culminating event or festival that provides an appropriate climax to the end of the competitive season; keeping records: records may include outcomes of matches and player performance. Students will participate in any of the following sports based on availability of facilities: floor hockey, badminton, spike ball, bound ball, dodgeball, or speed-a-way.

### **Team Games A (0981)**

**CREDIT: ¼ UNIT**

This course is designed for students who want to participate in a variety of team games and develop cardiovascular conditioning and advanced skills in soccer, basketball, flag football, ultimate Frisbee, hand ball, gator ball, dodgeball, mat ball, gaga ball, and speedball.

### **Team Games B (0970)**

**CREDIT: ¼ UNIT**

This course is designed for students who want to participate in a variety of team games and develop cardiovascular conditioning and advanced skills in softball, lacrosse, floor hockey, water polo, speed-a-way, volleyball, and team handball.

**\* Elective activities may be subject to change based on facility availability.**

## Science Course Descriptions

### Science Course Offering Overview

Core Regents	AP	.5 Electives	1.0 Elective
Earth and Space Sciences Regents	AP Environmental Science	Astronomy	Anatomy & Physiology
Biology Regents	AP Biology	Forensics	SUPA Forensics Honors
Chemistry Regents	AP Chemistry	Insights Into Chemistry	
Physics with Optics Regents	AP Physics C	Optics	

All science courses at Penfield High School focus to build and develop student's science skills in the following Science and Engineering Practices:

- Asking Questions
- Developing and using Models
- Planning and Carrying Out Investigations
- Analyzing Data
- Constructing Explanations
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

Using the Crosscutting Concepts:

- Patterns
- Cause & Effect
- Scale, Proportion, and Quantity
- Systems & System Models
- Energy & Matter: Flow, Cycle, Conservation
- Structure & Function
- Stability & Change

## Science Course Descriptions

### Regents Courses

#### Physical Setting: Earth and Space Sciences Regents (0300)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9 STRONGLY RECOMMENDED**

**EXAMINATION: REGENTS ♦ CREDIT: 1 UNIT**

Physical Setting: Earth Science is a laboratory-centered course, which includes the study of important scientific concepts in the fields of Geology, Meteorology and Astronomy. Students will improve their scientific literacy while investigating the physical environment in which they live.

This course meets for six periods per week.

A minimum of 1200 minutes of laboratory work, with successfully written lab reports, is required for admission to the Regents final examination.

#### Biology Regents (0308)

**PREREQUISITE: PHYSICAL SETTING EARTH SCIENCE STRONGLY RECOMMENDED ♦ GRADE LEVEL: 9-12**

**EXAMINATION: REGENTS ♦ CREDIT: 1 UNIT**

The Living Environment course is one of the core courses **required for graduation**. The course follows the New York State Standards for Mathematics, Science, and Technology which state: "Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science." In this course, students will develop science skills and investigate topics such as cells, genetics, ecology, evolution and human body systems.

This course meets for six periods per week.

A minimum of 1200 minutes of laboratory work, with successfully written lab reports, is required for admission to the Regents final examination.

[Link to an informational letter explaining New York State Education Law 809 regarding dissection in science.](#)

#### Physical Setting: Chemistry Regents (0311)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ALGEBRA I. EARTH SCIENCE IS STRONGLY RECOMMENDED**

**♦ GRADE LEVEL: 9-12**

**EXAMINATION: REGENTS ♦ CREDIT: 1 UNIT**

This course requires consistent study, quantitative reasoning, and application of concepts. The study of Physical Setting: Chemistry Regents curriculum involves in-class work, supported by laboratory experiences and reinforced with homework. A significant portion of the laboratory program provides opportunities for students to discover or apply fundamental laws and principles.

The course is concerned with bonding, energy effects, composition of substances, changes in structure, and the submicroscopic structures of atoms and molecules. Students should have an advanced level of mathematical understanding as it applies to manipulating equations and solving for unknown variables. Other topics studied are equilibria, reaction rates, oxidation-reduction, and an introduction to Organic Chemistry.

This course meets for six periods per week.

A minimum of 1200 minutes of laboratory work, with successfully written lab reports, is required for admission to the Regents final examination.

## Science Course Descriptions



### Physical Setting: Physics with Optics (0319)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ALGEBRA II OR CONCURRENT ENROLLMENT IN ALGEBRA II** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: REGENTS** ♦ **CREDIT: 1 UNIT**

This course includes the study of motion, forces, momentum, energy, heat, waves, light, optics, electromagnetism, models of the atom, and topics in nuclear physics. Emphasis is placed on optics, its applications, and local industries related to optics. Laboratory work using modern scientific techniques such as interactive physics software, photocells and lasers constitutes a major portion of the course. Problem solving is emphasized and mathematical ability is necessary.

This course meets for six periods per week.

A minimum of 1200 minutes of laboratory work, with successfully written lab reports, is required for admission to the Regents final examination.

Three MCC credits may be earned through a dual credit program. There is a tuition cost associated with MCC credit.

## AP Courses

### AP Environmental Science (0307)

**PREREQUISITE: SUCCESSFUL COMPLETION OF LIVING ENVIRONMENT AND A PHYSICAL SETTING CORE COURSE (PREFERABLY EARTH SCIENCE)** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED** ♦ **CREDIT: 1 UNIT**

AP Environmental Science is based on a three-credit college course in contrast to other AP Science courses, which are equivalent to eight credit college courses. Therefore, Environmental Science offers a college level science course that is not forced to move at the rapid pace of other AP sciences. Environmental topics discussed in the course include energy, eco-systems, limited resources (land, water, etc.), biodiversity, agriculture, pollution, and environmental ethics and policy. Students will learn through direct instruction, laboratory exercises, field experience, inquiry and other methods.

The course includes field trips to a variety of local and regional destinations of environmental importance. In addition, we will take a longer trip to a marine ecosystem. This course meets five periods per week and meets the requirements of the syllabus for AP Environmental Science. An AP exam is offered in May.

### AP Biology (0305)

**PREREQUISITE: SUCCESSFUL COMPLETION OF LIVING ENVIRONMENT AND PHYSICAL SETTING CHEMISTRY** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED** ♦ **CREDIT: 1 UNIT**

This course, designed as a college freshman course, follows the Advanced Biology Syllabus, and is accredited by the College Board. The format of the course includes lecture, group work, projects, independent reading, laboratory sessions (emphasizing experimental procedures, inquiry lab design, analyzing data, and formulating conclusions), problem-based learning units, student presentations, and understanding social-historical aspects of research in the field, centered around the four big ideas in AP Biology.

Laboratory work, from meeting six periods per week, includes areas suggested by the AP syllabus, as well as instructor-based areas. Students will be responsible for a final research project in the last quarter of the year.

## Science Course Descriptions

Projects during the year include live animal training, animal behavior, animal dissection and pond water analysis. An AP exam is offered in May

This course meets for six periods per week.

[Link to an informational letter explaining New York State Education Law 809 regarding dissection in science.](#)

### AP Chemistry (0313)

**PREREQUISITE: SUCCESSFUL COMPLETION OF PHYSICAL SETTING CHEMISTRY ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

This course is designed to be a college freshman chemistry course with greater scope and depth than Physical Setting: Chemistry Regents. The nature of matter is explored through a normal sequence of topics with particular emphasis on mass relations, atomic structure, bonding, gases, equilibrium, thermo-dynamics, electrochemistry, acid-base theory, and redox chemistry. An AP exam will be given in May.

This course meets for six periods per week.

### AP Physics C (0320)

**PREREQUISITE: SUCCESSFUL COMPLETION OF PHYSICAL SETTING: PHYSICS AND CALCULUS OR**

**CONCURRENT ENROLLMENT IN CALCULUS ♦ GRADE LEVEL: 11-12**

**EXAMINATION: AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

Class work and laboratory work combine to derive the basic physical laws in the correct mathematical form rather than the approximation used for the Regents courses. The areas that will be explored are mechanics, electricity, and magnetism. It is the equivalent of one semester of Mechanics and one semester of Electricity and Magnetism. Each part may be taken separately for a semester's worth of college credit. Since calculus is used extensively, advanced study in mathematics is highly recommended. The course concludes with the completion of the Advanced Placement College Board exam, and all other assignments through the end of the school year. Many colleges award advanced placement status, credit, or both based on the examination results.

## Elective Courses

### Anatomy & Physiology (0335)

**PREREQUISITE: SUCCESSFUL COMPLETION OF LIVING ENVIRONMENT AND A PHYSICAL SETTING COURSE (PREFERABLY CHEMISTRY) ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

This course involves the study of human anatomy and physiology, including anatomical terminology, basic biochemistry, cells and tissues, and the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic/immune, respiratory, digestive, urinary, and reproductive systems. In addition, it presents an introduction to common human disease processes. This course complements students interested in medicine, nursing, sports therapy, and physical therapy.

This course meets for five periods per week.

[Link to an informational letter explaining New York State Education Law 809 regarding dissection in science.](#)

## Science Course Descriptions

### Astronomy (0345)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ONE SCIENCE COURSE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT (DESIGNED AS A ONE-SEMESTER ELECTIVE)**

Astronomy is a course that will expand student understanding of the physical nature of space. Topics may include the Big Bang, black holes, wormholes, quasars, and the structure and evolution of planets, stars, galaxies, and the Universe. Additional topics may encompass recent newsworthy events.

This course meets for five periods per week.

### Forensic Science (0341)

**PREREQUISITE: SUCCESSFUL COMPLETION OF LIVING ENVIRONMENT OR CONCURRENT ENROLLMENT IN LIVING ENVIRONMENT ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT (DESIGNED AS A ONE-SEMESTER ELECTIVE)**

Forensic science is one of the fastest growing fields in the country and is a vital part of the criminal justice system. Forensic science examines evidence collected by crime scene investigators. This class is a hands-on, applied science. Topics of study will include physical evidence (geology, physics, mathematics), forensic psychology, biological evidence, and time since death (anthropology, entomology, odontology).

This course meets for five periods per week.

### Forensic Science Honors (0342)

**PREREQUISITE: SUCCESSFUL COMPLETION OF PHYSICAL SETTING CHEMISTRY OR CONCURRENT ENROLLMENT IN CHEMISTRY ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Project Advance, through Syracuse University, allows us to teach this full year, course which may earn college credits through Syracuse University.

Forensic Science (Chemistry 113 at S.U.) is focused upon the application of scientific methods and techniques to crime and law. Recent advances in scientific methods and principles have had an enormous impact on law enforcement and the entire criminal justice system. This course provides an introduction to the science behind crime detection. Scientific methods specifically relevant to crime detection and analysis will be presented with emphasis on the techniques of analyzing physical evidence. Topics included are blood analysis, organic and inorganic evidence analysis, microscopic investigations, hair analysis, DNA, drug chemistry and toxicology, fiber comparisons, fingerprints, behavior profiling, and arson investigations, among others. Laboratory exercises will include techniques commonly employed in forensics investigations.

This course meets for five periods per week.

Four Syracuse Univ. credits may be earned through a dual credit program. There is a tuition cost associated with Syracuse University credit.

### Insights into Chemistry (0346)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ONE SCIENCE CORE COURSE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Topics will come from real-world applications such as automobiles, fireworks, neon signs, halogen lights, fish tanks, swimming pools, acids/bases in the home, making ice cream, scuba diving, making polymers, and nuclear reactors.

## Science Course Descriptions

Provides students with a physical science experience that is primarily built on:

- Hands on activities
- Real-world applications
- Inquiry-based investigations
- More qualitative than quantitative applications
- Historical and current events in society
- Developing decision making skills
- Potential career applications
- Science in literature
- Safety issues in everyday life

This course meets for five periods per week.

**\*\* Attention student athletes: This course is not an NCAA approved core course**



### Optics (0347)

**PREREQUISITE: SUCCESSFUL COMPLETION OF ONE SCIENCE COURSE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Optics is the field of science and engineering that deals with the origin, propagation, and detection of light. Emphasis in this course is placed on optics, its applications, and local industries related to optics. This course is designed to help students appreciate its influence in our world and familiarizes students with the important aspects of technical optics.

This course meets for five periods per week.

Three MCC credits may be earned through a dual credit program. There is a tuition cost associated with MCC credit.

## Social Studies Course Descriptions

### Global History and Geography I Regents (0100)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

This is the first of four required Regents courses in social studies. The chronological course divides world history into seven eras sandwiched between an introduction to global history and a unit that focuses on global connections. The chronological divisions in Global History I are: The Ancient World: Civilizations and Religions (4000 BCE-AD 500); Expanding Zones of Exchange and Encounter (500-1200); Global Interactions (1200-1650); and the First Global Age (1450-1770).

### AP World History: Modern I (0116)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

This is the first half of a two-year course (Course 0115 - AP World History: Modern in 10th grade) which culminates at the close of sophomore year with an AP exam in May and the New York State Regents Exam in Global History in June. The AP World History: Modern I course is a college-level course designed to explore human history from 1200 C.E. to 1750 C.E. This accelerated course requires students to complete reading and writing assignments beyond the scope of a traditional Regents Global History course. There is an emphasis on the development of collegiate-level analytical and writing skills. The course devotes considerable time to the critical evaluation of primary and secondary sources, analysis of historiography (the principles, theories, or methodology of scholarly historical research and presentation) and inquiry into global connections which have shaped our present world. Students will be exposed to World History: Modern skills and practice assessments. AP World History: Modern I offers an approach that lets students explore history by guiding them through the steps a historian would take in critically analyzing world-wide events and documents. *New York State requires students to complete a background unit (Unit 0) to offer contextualization of world history foundations from 8000 B.C.E. – 1200 C.E.* Recommended Achievement Level: Teacher recommendation. Recommended to take AP World History: Modern II in 10th grade.

### Global History and Geography II Regents (0101)

**PREREQUISITE: GLOBAL HISTORY AND GEOGRAPHY I REGENTS** ♦ **GRADE LEVEL: 10**

**EXAMINATION: REGENTS** ♦ **CREDIT: 1 UNIT**

Global History and Geography II R is the second year of the two-year Global History course. It is based upon Social Studies standards and utilizes a chronological format organized around concepts and themes. Global History II students will learn about the world through four major units of study: An Age of Revolutions (1750-1914), A Half-Century of Crisis and Achievement (1900-1945), The 20<sup>th</sup> Century After 1945; and Global Connections and Interactions.

### AP World History: Modern II (0115)

**PREREQUISITE: GLOBAL HISTORY I OR AP WORLD HISTORY: MODERN I** ♦ **GRADE LEVEL: 10**

**EXAMINATION: REGENTS, AP EXAM STRONGLY ENCOURAGED** ♦ **CREDIT: 1 UNIT**

The AP World History: Modern Exam presumes at least one year of college-level preparation, as is described here: The purpose of the AP World History: Modern course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies especially non-European societies. Course content focuses primarily on world history since the year 1750. This understanding is advanced through a combination of selective factual knowledge and appropriate analytical

## Social Studies Course Descriptions

skills. The course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. The course makes demands upon the student equivalent to those made by full-year introductory college courses. This course requires time outside of the classroom to complete the larger amount of reading and writing assignments than is normally assigned in Global History and Geography Regents. Students are required to take the New York State Global History and Geography Regents Exam, and all students are strongly encouraged to take the AP World History: Modern Exam in May. This course is the second part of a two-year sequence in world history instructed at the Advanced Placement level and prepares students for the AP World History: Modern Exam. Therefore, it is strongly suggested that students enrolling in this class have taken AP World History: Modern I in ninth grade.

### US History/Government Regents (0102)

**PREREQUISITE: GLOBAL HISTORY II OR AP WORLD HISTORY: MODERN II ♦ GRADE LEVEL: 11**

**EXAMINATION: REGENTS ♦ CREDIT: 1 UNIT**

This is a chronologically-organized course in United States history following New York State framework guidelines and standards. There is an emphasis on geography, understanding of the basic principles of the constitutional and legal issues, exploration of the evolving and diverse American identity, and the emergence of the United States as a world power. Students will work with primary and secondary source materials so as to enhance their understanding and analysis of American History. In addition, students will practice the writing tasks which are the Short Essay and Civic Literacy Essay in preparation for the Regents exam in June. All students will be required to take the US History and Government Regents examination at the end of the course. Passing the US History and Government course and the Regents Exam are required for graduation.

### AP United States History (0104)

**PREREQUISITE: GLOBAL HISTORY II OR AP WORLD HISTORY: MODERN II ♦ GRADE LEVEL: 11**

**EXAMINATION: REGENTS, AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

The AP United States History Exam presumes at least one year of college-level preparation, as is described here: The AP U.S. History course is designed to provide students with analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The course makes demands upon the students equivalent to those made by full-year introductory college courses.

This course requires students to spend extensive time outside of the classroom to complete reading and writing assignments in greater or larger amount than is normally assigned in United States History and Government Regents. Students will learn to assess historical materials – their relevance to a given interpretive problem, reliability, and importance – and to weigh the evidence and interpretations presented in historical scholarship. Assignments will require students to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format. Students are required to take the New York State United States History and Government Regents Exam .

### Participation in Government (0110)

**PREREQUISITE: US HISTORY OR AP US HISTORY ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL AND PROJECT ♦ CREDIT: ½ UNIT**

Participation in Government is a one-semester grade 12 course. This course emphasizes the interaction between citizens and government at all levels: local, state, and federal. The development of student participation in the processes of government is encouraged. A public policy research paper and class

## Social Studies Course Descriptions

presentation are an integral part of the course. Students will also take a final exam in the course. This course is required for graduation except for students who successfully complete AP United States Government and Politics/Economics.

### **Economics (0111)**

**PREREQUISITE: US HISTORY OR AP US HISTORY ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Economics is a senior semester course that introduces students to economic language and practices. Students study the elements of supply and demand, credit and financial applications, business organization and practices, economic policy and government actions to gain a better understanding of money and the economy. Students will complete a culminating final project which reflects all major aspects of the economics course. This course is required for graduation except for students who successfully complete AP United States Government and Politics/Economics or Economics H.



### **Economics H (0128)**

**PREREQUISITE: US HISTORY OR AP US HISTORY ♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: ½ UNIT**

Economics H is a college-level course taught through the Project Advance program at Syracuse University and can replace Economics as part of the four-year requirement for graduation.

Economics 203, Economic Ideas and Issues, is an introduction to mainstream economic thought designed for students with a liberal arts interest. The goals of this course are to introduce students to the ideas that form the foundation of modern Western economic thought, to examine the basic framework that economists have built on this foundation and to show how this model is applied to current issues facing individuals and society. The course is rigorous, but not heavily mathematical. The course promises to enable the student to not only understand modern economic theory, but to predict and explain current economic developments.

Credit: 1/2 Unit

Three Units Syracuse University credit may be earned through a dual credit program. There is a tuition cost associated with Syracuse University credit.

### **AP United States Government and Politics/Economics (0122)**

**PREREQUISITE: US HISTORY OR AP US HISTORY ♦ GRADE LEVEL: 12**

**EXAMINATION: AP US GOVERNMENT POLITICS & ECONOMICS RESEARCH PAPER/PROJECT, AP EXAMS**

**STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

This is a one-year elective course taken in place of the two required courses of Participation in Government and Economics. This course aims to give students an analytical perspective on government and politics in the United States. This course includes both the study of general concepts used to interpret U.S. politics and the analysis of specific examples. Students will investigate such topics as: The Constitutional foundations of United States Government; the role of citizens in politics; political parties; special interest groups and lobbies; civil rights and liberties; and intensive looks at the operations of the three branches of the United States government. This course will also integrate a variety of economic subjects (see Economics course description for details). All New York State requirements for Participation in Government and Economics classes will be met. Emphasis is placed on making material presented relevant and up-to-date as possible. The course makes demands upon the students equivalent to those made by full-year introductory college courses. This course requires time outside of the classroom to complete reading and writing assignments in greater or larger

## Social Studies Course Descriptions

amount than is normally assigned in Regents Participation in Government and Economics. All students are strongly encouraged to take the AP Government Exam in May.

### Elective Courses



#### **AP African American Studies (0133)**

**PREREQUISITE: NONE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: RESEARCH PAPER/PROJECT, AP EXAM STRONGLY ENCOURAGED**

**♦ CREDIT: 1 UNIT**

AP African American Studies is an interdisciplinary course that examines the diversity of African American experiences through direct encounters with authentic and varied sources. Students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. Given the interdisciplinary character of African American studies, students in the course will develop skills across multiple fields, with an emphasis on developing historical, literary, visual, and data analysis skills. This course foregrounds a study of the diversity of Black communities in the United States within the broader context of Africa and the African diaspora. The final project for the course students will create a research paper/project where they will have an opportunity to research any topic, theme, issue, or development in the field of African American studies. Students are strongly encouraged to take the AP African American Studies exam in May.

#### **Psychology (0113)**

**PREREQUISITE: NONE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: ONLINE PROJECT ♦ CREDIT: ½ UNIT**

Psychology is a semester elective which helps students complete a five-unit sequence in Social Studies. This highly interactive, self-reflective, project-based course focuses on you – your thoughts, emotions, and behavior. Through this course of study, students will explore topics including mental health and illnesses, emotion and motivation, social and positive psychology, sensation and perception and developmental stages. Through a combination of projects, labs, readings, and class discussions/circles, students will explore a variety of ways to learn more about themselves and how they interact with the community and world.

#### **AP Psychology (0129)**

**PREREQUISITE: NONE ♦ GRADE LEVEL: 11-12**

**EXAMINATION: LOCAL, AP EXAM STRONGLY ENCOURAGED ♦ CREDIT: 1 UNIT**

AP Psychology is a full-year elective course that is designed to introduce students to the systematic and scientific study of human behavior and mental processes. Students learn about the psychological principles as well as the methods psychologists use in their practices. AP Psychology is a survey course emphasizing the history of psychology as a science, the different explanations of human behavior, and the modern research methods utilized by psychologists. *Stress* is given, though not limited to, the following areas of psychology: neuroscience, developmental psychology, sensation and perception, personality theory, cognition, motivation and emotion, abnormal psychology and social psychology. Lastly, students will gain understanding of the importance of ethics in both scientific research and the practice of psychology. This course requires collegiate level reading and content preparation. Credit and/or placement towards college may be awarded, dependent upon each college's AP credit acceptance policy, for successful performance on the Advanced Placement Examination in Psychology.

## Social Studies Course Descriptions

### Sociology (0114)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

Sociology is designed to enable students to investigate the sociological spectrum and how individuals relate to the greater society and its effects. The emphasis of the course is on American society where students will learn the nature of groups, social interactions, and collective behavior. Additional topics will include agents of socialization, family influences, deviance, crime, and the different variations, causes, and effects of inequality. Along with group projects and presentation, students will be required to complete a final project on a sociological topic of their choice. Students may choose to take this course to complete a five-unit sequence in social studies.



### Sociology H (0112)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 11-12**

**EXAMINATION: REGENTS** ♦ **CREDIT: ½ UNIT**

Sociology H is offered through Syracuse University Project Advance. This college-level sociology course is titled: Sociology 101, Introduction to Sociology at Syracuse University. The course is designed as an analytic, skills-based course in introductory sociology. The emphasis is on analytic reading and conceptual analysis. The approach to sociology is to view it as an empirical social science. Most of the readings are either empirically based or are review articles of an area of sociological investigation. It is a writing intensive course. As the course progresses, students should obtain increasing skill in analytic reading, sociological reasoning, empirical investigation, and in the ability to make empirical and conceptual generalizations about self and society in an increasingly global world. There are two college level synthesis papers for this course, 27 analytical responses of peer-reviewed scholarship, and multiple discussion-based seminars.

Three Units Syracuse University credit may be earned through a dual credit program. There is a tuition cost associated with SU credit.

### 20th Century War – American Foreign Policy (0117)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: FINAL PROJECT** ♦ **CREDIT: ½ UNIT**

War, conflict, and foreign policy are three perennial issues for the United States. This social studies elective course will offer students the opportunity to study the wars of the 20<sup>th</sup> century in great depth and evaluate whether America's foreign policy initiative of "making the world safe for democracy" has been successful in light of our recent involvement in Afghanistan and Iraq. This course will examine the economic, political, social and cultural causes and effects of WWI, WWII, the Korean War, the Vietnam War, and Gulf War I. With each unit of study, students will have the opportunity to make connections over time by researching, analyzing, and deducing how our involvement and goals starting in WWI have either succeeded or failed with each successive war up through today's current conflicts. Course work will include a foreign policy and/or a War Journal about a self-selected non-fiction book about war.



## Engineering Sequence

Project Lead the Way has developed a four-year sequence of courses which, when combined with college preparatory mathematics and science courses in high school, introduces students to the scope, rigor and discipline of engineering and engineering technology prior to entering college. The Technology Education department offers a 5-unit sequence. Many of these courses offer dual college credit.

### Core Courses

PLTW Design and Drawing for Production (DDP)

Digital Electronics

Principles of Engineering

### Electives (choose one)

Civil Engineering & Architecture

Computer Integrated Manufacturing (CIM)

Computer Science Principles

Cybersecurity

### Capstone Course

Engineering Design and Development

## Technology Sequence

Students may earn a Regents Diploma with Advanced Designation by completing one unit of LOTE and five credits in Technology/Business (see below). This sequence replaces the two units of the LOTE requirement.

### Foundation Course (required – this is a full year course)

PLTW Design and Drawing for Production (DDP)

### Systems Course (pick one from below – these are half year courses)

Working with Woods

Woods, Metals, and Plastics

Building and Repairing Houses

Career and Financial Management (required – this is a half year course. See the Business Section for course description)

### Electives (must take three additional credits)

Choose from any Technology Education courses

### Technology Education

#### Working with Woods (0650)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

In this class you will watch saw dust fly!! This course is designed to introduce students to the hands-on field of woodworking. Students will design, and build several projects throughout the class. Topics covered in the class will include safety, problem-solving, the design-process, wood types, surfacing lumber, joinery, gluing, machine and tool use, and career opportunities.

#### Woods, Metals and Plastics (0651)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

Have you ever thought about how every-day items are designed and created? Do you ever stare at a product and wonder how it arrived at the final prototype, ready to be sold in stores and purchased by people just like you? Then Woods, Metals and Plastics is the class for you! In this class you will develop skills, knowledge, and understandings, through hands-on activities. Students will learn how materials are manipulated to make our world's most popular products. Students will be instructed in the safe and proper use of tools, machines and the materials commonly used in the manufacturing and construction industries.

#### Building and Repairing Houses I (0654)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

Many people love watching home make-over shows – Tiny Houses, Flip or Flop, Fixer Upper, and Property Brothers just to name a few. Can you imagine buying a house and turning it into your dream home? Then Building and Repairing Houses is the class for you! Students will investigate through hands-on activities the aspects of how a house is designed, constructed, and repaired. Life-long, money- saving skills are just a few of the benefits of this course. Topics include planning, budgeting, building foundations, floors, walls, ceilings, and roofs. Students will also determine impacts of construction on the environment, economy, and society as a whole and ultimately have the foundation of becoming the next, money-making star of a home improvement show!

#### Principles of Land, Air and Sea Vehicles (0665)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

Drive it, Fly It, Launch it, Float it... The development of transportation systems throughout the world has a tremendous impact on the intellectual and economic growth of societies. Transportation systems allow people to move not only themselves, but also goods in increasingly fast and efficient ways. This class will explore the development of transportation systems from three perspectives: land, sea, and air. Students will learn through virtual and realistic problem solving projects that will allow them to better understand the role of transportation in their ever changing world.

## Technology Course Description

### Computer and Information Technology

#### Game Design (0686)

#### Advanced Game Design (0687)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT IN ART, ½ UNIT IN TECHNOLOGY**

Interested in finding out how game designers make games like Call of Duty and League of Legends games?

This course introduces students to the development of game design. This is a full-year course in which the student will be exploring the skills of both the animator and the programmer to create interactive games.

Students will learn about the basic elements of game software development, including some basic programming skills, the design and implementation of games, and testing/debugging.

After successfully completing Game Design, you may take the advanced-level course for a second year of credit.

#### AP Computer Science Principles (CSE) (0693)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

In the CSE course students work to understand and solve problems with programming. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking and computational tools that foster creativity, and to practice problem solving with structured activities that would progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems aim for ground-level entry with no ceiling so that all students can successfully engage the problems.

The course covers the College Board's new CS Principles framework.

Per Commissioner's Regulation §100.5(b)(7)(iv)(j), Computer Science Principles meets Regents standards for the 3rd unit of credit in Math or Science (but not both)

#### TV Production & Communications I (0682)

#### TV Production & Communications II (0683)

#### Advanced TV Production & Communications I (0684)

#### Advanced TV Production & Communications II (0685)

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: ½ UNIT**

This course is designed to provide students with the opportunities to produce, direct, host, and write programs to be aired on public media, including Penfield High School's own "Morning Show" as well as the local Penfield community television station PCTV. Students will be introduced to the video production process. The class includes hands-on experience with the techniques and practices of video production. The process, vocabulary and proper use of the video equipment will be emphasized throughout the class. Students will produce LIVE television shows and create video projects for the class. The student will be given an opportunity to participate in all facets of the video production techniques and will be exposed to video technology that includes the use of a computer for animation and video editing. Students will have an opportunity to interact with faculty, staff, and community.

You may take the advanced-level courses for a second year of credit.

## Technology Course Description

### Project Lead the Way

#### **Civil Engineering and Architecture (0667)**

**PREREQUISITE: NONE** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

**SPECIAL NOTE: This course is offered every other year and will be offered in 2025-2026.**

This course provides an overview of the fields of Civil Engineering and Architecture, while emphasizing the interrelationship and dependence of both fields on each other. Students use state of the art software to solve real world problems and communicate solutions to hands-on projects and activities.

RIT credit may be earned through a dual credit program. There is a tuition cost associated with RIT credit.

#### **Computer Integrated Manufacturing (CIM) (0657)**

**PREREQUISITE: DDP** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

**SPECIAL NOTE: This course is offered every other year and will be offered in 2024-2025.**

CIM is a course that applies principles of rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Design and Drawing for Production. Students will use computer controlled rapid prototyping and CNC equipment to solve problems by constructing actual models of their three dimensional designs. Students will also be introduced to the fundamentals of robotics and how this equipment is used in an automated manufacturing environment. Students will evaluate their design solutions using various techniques of analysis, and make appropriate modifications before producing their prototypes.

RIT credit may be earned through a dual credit program. There is a tuition cost associated with RIT credit.

Students planning a full complement of technology electives should be aware of this course offering as they plan their entire high school program of studies.

#### **AP Computer Science Principles (CSE) (0693)**

See AP Computer Science Principles (CSE) description on p. 54

#### **Digital Electronics (0658)**

**PREREQUISITE: SUCCESSFUL COMPLETION OF ALGEBRA** ♦ **GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL** ♦ **CREDIT: 1 UNIT**

Digital Electronics is a course of study in applied digital logic. Students will be introduced to digital circuits found in video games, watches, calculators, digital cameras, and thousands of other devices. Students will study the application of digital logic and how digital devices are used to control automated equipment. This course is similar to a first semester college course and complements the path for any student exploring a career in engineering or engineering technology.

RIT or MCC credit or may be earned through a dual-credit program. There is a tuition cost associated with RIT /MCC credit.

## Technology Course Description



### **PLTW Design and Drawing for Production (DDP) (0655)**

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

This course intends to provide opportunities in the areas of design and drawing through creative thinking, decision making and problem solving experiences. A shift from the conventional learning methods to this design problem approach is the basis of the syllabus. This course is very similar to a pre-engineering course and is an excellent choice for those students thinking about a career in engineering.

(Any student may use this course to satisfy the 1 Unit art/music commencement requirement)

RIT or MCC credit may be earned through a dual-credit program. There is a tuition cost associated with RIT/MCC credit.

### **Engineering Design and Development (0666)**

**PREREQUISITE: FOUR OR MORE TECHNOLOGY/BUSINESS CLASSES OR WITH DEPARTMENTAL APPROVAL**

**♦ GRADE LEVEL: 12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Students will work in teams to design and construct solutions to engineering problems, applying the principles developed in the four preceding courses. Each team will be responsible for delivering progress reports and making final presentations of their project to an outside review panel. Students will maintain a journal as part of a portfolio of their work.



### **Principles of Engineering (0661)**

**PREREQUISITE: MINIMUM SUCCESSFUL COMPLETION OF OR CURRENTLY ENROLLED IN**

**GEOMETRY ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Principles of Engineering is a broad-based exploratory course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills that are involved in post-secondary education programs and engineering careers. They will explore various engineering systems and analysis techniques. They will also learn how engineers address concerns about quality and safety of technological systems.

Per Commissioner's Regulation 100.5(j) Principles of Engineering meets Regents standards for the 3rd unit of credit in Math or Science (but not both)

RIT credit may be earned through a dual credit program. There is a tuition cost associated with RIT credit.



### **PLTW Cybersecurity (0672)**

**PREREQUISITE: NONE ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Identify cybersecurity threats and protect against them. Detect intrusions and respond to attacks. Begin to examine your own digital footprint and better defend your own personal data. Learn how organizations protect themselves in today's world. Whether seeking a career in the emerging field of cybersecurity or learning to defend their own personal data or a company's data, students in PLTW Cybersecurity establish an ethical code of conduct while learning to defend data in today's complex cyberworld.

## World Languages Course Descriptions

### Spanish 1 (0218)

**PREREQUISITE: NONE ♦ GRADE LEVEL: 9-12**

**EXAMINATION: 4 MARKING PERIODS AND/OR LOCAL EXAM ♦ CREDIT: 1 UNIT**

This beginning-level language course emphasizes vocabulary acquisition, pronunciation, and sets the foundation for grammar. This course introduces students to Spanish culture. Basic conversation patterns are taught in contrived "real-life" situations such as greetings, school, weather, telling time, clothing, family, food, friends, sports, numbers, and travel. Speaking, listening, reading, and writing skills are introduced. Spanish I R is designed as the introductory course in the NYS LOTE sequence. Class enrollment determines whether the class is offered.

### French 2 (0201)

### German 2 (0210)

### Spanish 2 (0220)

**PREREQUISITE: LANGUAGE 8 OR LEVEL I ♦ GRADE LEVEL: 9-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

Modes including interpretive (listening and reading), presentational (writing and speaking), and interpersonal (non-rehearsed communication) are emphasized at this level. Grammar and vocabulary are reviewed and extended from level 1. Students will further develop interpersonal and presentational skills through guided conversations, role-playing, skits, and rehearsed speaking and writing tasks. Listening and reading comprehension is focused on the use of authentic texts, stories, and current events in order to help students develop an increased awareness of the cultures of those who speak the language. The expectation is that this course will be taught in the target language 90% of the time.

### French 3 (0203)

### German 3 (0212)

### Spanish 3 (0222)

**PREREQUISITE: FRENCH, GERMAN, SPANISH 2 ♦ GRADE LEVEL: 10-12**

**EXAMINATION: LOCAL ♦ CREDIT: 1 UNIT**

In this course, students further develop interpretive, presentational, and interpersonal skills and build upon those gained in Level 2. This will be done through speaking and listening practice, vocabulary development, longer culturally relevant readings and writings, and grammatical studies. Students work independently and in groups to use the language more proficiently and with confidence. Level 3 prepares students for the regionally-developed Checkpoint B Examination. This course is the third course in a sequence which is required for a Regents Diploma with Advanced Designation. The expectation is that this course will be taught in the target language 90% of the time.



### College French 1 (0205)

### College German 1 (0214)

### College Spanish 1 (0224)

**PREREQUISITE: FRENCH/GERMAN/SPANISH 3 ♦ GRADE LEVEL: 11-12**

**EXAMINATION: PROJECT/MCC ASSESSMENTS ♦ CREDIT: 1 UNIT**

## World Languages Course Descriptions

Students use and further develop the level 3 interpretive, presentational, and interpersonal skills in culturally relevant situations with thematic units related to the target culture and their own culture. These may include units on sports, immigration, environment, xenophobia, careers, education, recreation, music, poetry, videos, travel, or other

contemporary issues. Reading, writing, and class discussions focus on short literary texts, articles from current magazines, newspapers, and the internet. The expectation is that this course will be taught in the target language 90% of the time. Three MCC credits may be earned through a dual credit program. There is a tuition cost and required assessments associated with MCC credit. The MCC curriculum is incorporated throughout the year.



**College French 2 (0207)**

**College German 2 (0216)**

**College Spanish 2 (0226)**

**PREREQUISITE: COLLEGE FRENCH/GERMAN/SPANISH 1 ♦ GRADE LEVEL: 12**

**EXAMINATION: PROJECT/MCC ASSESSMENTS ♦ CREDIT: 1 UNIT**

The goal of this course is to guide the students to achieve advanced proficiency in the target language. In this final year, students maintain and continue to develop their language proficiency through collaborative and independent projects that investigate target language cultures and includes student reflection on their own cultures. These may include poetry, short stories and essays, newspapers and journalism, story writing, and reactions to real-life situations. Instructional materials include a variety of authentic audio and video selections that further develop students' listening abilities. The expectation is that this course will be taught in the target language 90% of the time.

Three MCC credits may be earned through a dual credit program. There is a tuition cost and required assessments associated with MCC credit. The MCC curriculum is incorporated throughout the year. In College French 2 and German 2, students also have the opportunity to prepare for the French or German AP Exam. This is optional and requires working on extra topics outside of class.

### **AP Spanish (0227)**

**PREREQUISITE: COLLEGE SPANISH 1 ♦ GRADE LEVEL: 12**

**EXAMINATION: PROJECT ♦ CREDIT: 1 UNIT**

The AP course is a rigorous academic curriculum with a learning experience equivalent to that of a third-year college course. The goal of this course is to guide students to achieve fluency in the target language and the course is taught almost exclusively in the foreign language and language usage is expected in class.

Instructional materials include a variety of authentic audio and video selections that further develop students' listening abilities. Authentic written texts such as newspaper, magazine and internet articles, literary texts, and other non-technical writings are used to develop students' reading abilities. There is extensive training in the organization and writing of compositions. Students have frequent opportunities to develop their speaking skills in various conversational situations. Students will work through collegiate level reading and content preparation. Credit and/or placement towards college may be awarded, dependent upon each college's AP credit acceptance policy and for successful performance on the Advanced Placement Examination in the target language. Students are strongly encouraged to take the AP exam in May. Class enrollment determines whether the class is offered.

## Eastern Monroe Career Center (EMCC)

### Academic Credit Offerings 2023-2024

EMCC offers 17 Career and Technical Education programs. [Click here](#) to learn more about the program offerings including high school credits offered, college dual enrollment and industry based exams and certifications.

<u>EMCC Course</u>	<u>Credit</u>	<u>Academic Credit Available</u>
<u>Auto Services</u>	1.00 1.00	Advanced - English 12 Basic - Technical Science
<u>Automated Manufacturing &amp; Machining</u>	1.00	Advanced - English 12 Advanced - Technical Science
<u>Childcare Professions</u>	1.00	Advanced - English 12
<u>Cisco Networking Academy</u>	1.00	English 12 for seniors
<u>Collision Repair Technology</u>	1.00 1.00	Advanced - English 12 Advanced - Technical Science
<u>Construction Trades</u>	1.00 1.00	Advanced - English 12 Advanced - Technical Math
<u>Cosmetology</u>	1.00 1.00	Advanced - English 12 Basic - Technical Science
<u>Criminal Justice</u>	1.00 0.50 1.00	Advanced - English 12 Advanced - Participation in Government Basic - Technical Science
<u>Culinary Arts</u>	1.00 1.00	Advanced - English 12 Advanced - Technical Math
<u>Emergency Services</u>	1.00 1.00 0.50	Advanced - English 12 Advanced - Technical Science Basic - Health
<u>Nail and Waxing Specialty</u>	1.00 1.00	Advanced - English 12 Basic – Technical Science
<u>New Vision Education Professions</u>	1.00	English 12*
<u>New Vision Medical Careers</u>	1.00 0.50 0.50 0.50	English 12 Participation in Government Economics Health
<u>PC Repair &amp; Network Cabling</u>	3.00	
<u>Professional Health Careers</u>	1.00 1.00 0.50	Advanced - English 12 Advanced - Technical Science Basic - Health
<u>Trade Electricity</u>	1.00 1.00	Advanced - English 12 Advanced - Technical Math
<u>Visual Communication and Photography</u>	1.00	Advanced - English 12
<u>Welding and Fabrication</u>	1.00 1.00	Advanced - English 12 Advanced - Technical Science

## EMCC Course Descriptions

Click on course title to view a more thorough description on [Eastern Monroe Career Center](#) web page.

### **Automated Manufacturing & Machining: Two-Year NYSED Approved CTE Program\***

**Basic 9068**

**Adv 9066**

This program is recommended for students interested in pursuing a career in the field of industrial or mechanical engineering or to obtain employment in advanced manufacturing, including the optical and photonics industry. Employment opportunity in both disciplines is very good throughout the country. Students are introduced to the field of precision machining (cutting metal very precisely) through a hands-on approach with machines and cutting tools. A student completing this two-year program will be able to safely set up and operate various machines such as metal cutting lathes, mills, grinders, band saws, and Computer Numerical Controlled (CNC) mills and lathes. Students will also learn print reading, precision measuring, CAD & CAM software and shop math. Students will use precision measuring tools to measure and inspect projects. There are no prerequisites, although a good math background is helpful.

Dual Credit: Monroe Community College (9 credits)

Articulation Agreements:

Alfred State College

University of Northwestern Ohio

### **Auto Services: Two-Year NYSED Approved CTE Program\***

**Basic 9002**

**Adv 9003**

Students learn to repair and maintain a variety of vehicles. They locate mechanical, electronic and computer problems through careful diagnosis and perform the necessary repairs using industry equipment. Units of study are delivered in four 20-week modules and are aligned with the Automotive Service Excellence (ASE) requirements. Hands-on experience is attained by servicing actual vehicles in an industry-based work environment.

Dual Credit: Monroe Community College (1 credit)

Articulation Agreements:

Alfred State College

University of Northwestern Ohio

### **Childcare Professions: One-Year NYSED Approved CTE Program\* (9011)**

This one-year program allows high school juniors/seniors to explore careers in childcare. Students will begin the work towards earning the Child Development Associate (CDA) certificate. Students will gain real-world experience working in the Teens & Tots Preschool and in the East Rochester Elementary school. Qualified students may also gain experience in a community childcare setting.

Dual Credit: Monroe Community College (3 credits)

### **CISCO Networking Academy: One-Year NYSED Approved CTE Program\* (9090)**

Stand alone 1 year course for those with networking background. Students learn skills in the areas of basic network cabling, network security, wireless implementation and advanced routing and design. Students work independently as they acquire the skills necessary to become CISCO certified. Students need to develop and demonstrate strong personal time-management skills and problem-solving skills.

Dual Credit: Genesee Community College (4 credits)

### **Collision Repair Technology: Two-Year NYSED Approved CTE Program\***

**Basic 9000**

**Adv 9001**

Students learn to repair and refinish collision-damaged vehicles. They learn the fundamentals of metal straightening, MIG-welding, detailing, painting, refinishing and customizing, and working with plastic fillers. Students will gain experience with flexible bumper repair, major collision repair, hardware repair and service. Students study and demonstrate competency in writing collision estimates, managing customer paperwork, and tracking jobs. Interactive and professional communication skills are developed.

Articulation Agreements:

Alfred State College

Eric Community College

Pennsylvania College of Technology (credit by evaluation)

### **Construction Trades: Two-Year NYSED Approved CTE Program\***

**Basic 9080**

**Adv 9081**

Students learn the fundamentals of residential construction from footings to roof installation. First year students will focus on the principles and concepts of wall, floor and roof framing along with windows, doors, siding and roofing. Second year students will learn masonry including brick, block and foundation building. After a small foundation is constructed, students will frame a floor and complete the rough plumbing for a residential bathroom. Second year students will have the opportunity to participate in a paid cooperative, up to eight weeks, with a reputable construction company.

Articulation Agreements:

Alfred State College

Pennsylvania College of Technology (credit by evaluation)

SUNY College of Technology at Delhi

### **Cosmetology: Two-Year NYSED Approved CTE Program\***

**Basic 9005**

**Adv 9006**

Students learn the latest techniques in hair cutting, styling, and chemical services, as well as nail and skin care. Students practice cuts and styles on mannequins and classmates, before offering services to customers in our school-sponsored salon. The curriculum includes skill development in the areas of communication, organization, and time management, which are essential to success in the industry. Students attend the program for two years, including a summer session between the junior and senior year. Students will need to complete 1,000 hours of theory and practice before they are eligible to take the NYS Cosmetology Licensing exam.

Articulation Agreement(s):

Bryant and Stratton

### **Criminal Justice: Two-Year NYSED Approved CTE Program\***

**Basic 9044**

**Adv 9045**

Through a blending of rigorous academics and experiential activities, students explore the history of law enforcement and develop an understanding of civil and criminal law. Students review court cases and outcomes as they relate to law enforcement at the local, state and national level. Students use forensic

## EMCC Course Descriptions

science as a means to investigate simulated crime scenes. Guest speakers from the criminal justice field and visits to numerous agencies deepen the student's understanding of this career field.

Dual Credit: Monroe Community College (9 credits)

### Culinary Arts: Two-Year NYSED Approved CTE Program\*

**Basic 9027**

**Adv 9028**

Students learn about the fast-paced careers of the food service industry. Students gain experience in both front- and back-of-the-house operations. Students begin by developing their knife skills and using appropriate cooking methods for different foods. Opportunity is provided for students to learn safe methods of food handling and storage through the ServSafe program. Initial food production is small scale. Students graduate to planning and production for a class-run restaurant, Three Seasons. Internships with other professionals in the field extend student's learning experience. Students develop both individual and team culinary skills.

Dual Credit: Monroe Community College (8 credits)

Articulation Agreement(s):

Art Institute of Pittsburgh

Johnson & Wales (FAST)

Monroe Community College (ServSafe)

### Emergency Services: Two-Year NYSED Approved CTE Program\*

**Basic 9023**

**Adv 9024**

This two-year program provides students the opportunity to develop knowledge and skills in fire protection technology, fire safety, emergency medical care, and radio dispatch. Students explore these professions through a variety of guest lecturers and site visitations. In the first year, students earn CPR certification and take the NYS Certified First Responder certification exam. The purpose of the second-year course is to prepare students to participate in an extensive field internship and take the NYS EMT-Basic (EMT-B) certification exam. **Students taking this program are strongly encouraged to get the COVID-19 vaccine. It is not required at this time. However, not being vaccinated may impact our ability to place students on internship.**

In order for EMCC to be able to offer the EMT-B training program, we are required to have a course sponsor. Our course sponsor is Monroe Community College (MCC). In accordance with MCC course policies, in order to be eligible to participate in an internship and sit for the NYS EMT-B certification exam students must:

- Maintain a minimum of a 70% class average
- Have 100% attendance
- Register and pay for the associated MCC dual enrollment course (Emergency Medical Technician—EMS 110, 6 credits) where students pay 1/3 the regular tuition per credit hour
- Register and pay for the associated MCC dual enrollment course (Certified First Responder—EMS 101, 3 credits).

Dual Credit: Monroe Community College (12 credits)

Articulation Agreement(s):

Finger Lakes Community College

### **Nail and Waxing Specialty: Two-Year NYSED Approved CTE Program\***

#### **Basic (9007)**

#### **Adv (9008)**

Nail and Waxing Specialty is a perfect course for students interested in launching a career in the beauty industry, but not interested in hair styling. In this 2-year program, students will have an in-depth focus on nails, temporary hair removal methods, and makeup. Students will learn natural nail care, manicures, pedicures, as well as a variety of artificial nail enhancement techniques, proper hair removal procedures including tweezing and waxing of the face and body, and beginner to advanced makeup techniques and applications. In year one, when students are safely and competently able to perform skills, they will be able to practice on patrons in a clinical setting. In year two, students will continue to practice and enhance their knowledge and skills with a weekly clinic. Upon successful completion of the course, students will be prepared to sit for the New York State Licensing Exams in Nail Specialty and Waxing Specialty. Students must complete 250 hours of theory and practice in Nail Specialty and 75 hours of theory and practice in Waxing Specialty, as well as be 17 years of age at the time of testing to be eligible. Students will also create a portfolio of work.

Articulation Agreement(s):

Bryant and Stratton

### **New Vision Education Professions (9047E)**

This one-year program allows high school seniors the opportunity to explore careers in education through a partnership with East Rochester (ER) school district. Students participate in rotations in a variety of ER classrooms, as well as in the Teens and Tots preschool. Students in the program begin the work toward completing New York State Teacher Assistant I certification requirements and gain an understanding of the rigor and requirements necessary to work in the field of education.

Dual Credit: Monroe Community College (3 credits)

### **New Vision Medical Careers (9047)**

This one-year program allows high school seniors to explore careers in health care through partnerships with Rochester General Hospital and St. Ann's Community. Students participate in a rigorous academic program with hands-on experience in medical careers. Students participate in four 10-week rotations in different medical departments of the health care facility. This placement provides the student with an in-depth look at the responsibilities of patient care in a health care facility. **Students participating in this program must meet all medical requirements for working in a health care facility (hospital and nursing home). At this time, this includes being fully vaccinated for COVID-19.**

Dual Credit: Monroe Community College (12 credits)

### **PC Repair & Network Cabling: One-Year NYSED Approved CTE Program\* (9029)**

Students perform live customer work through a student-operated simulated computer repair business. This program gives students the knowledge, abilities, and customer relations skills needed for entry-level employment in the field. Students develop individual and team skills as they troubleshoot and solve networking issues. Course expectations require online participation. Networking experience prior to program admission would benefit students.

Dual Credit: Genesee Community College (4 credits)

### **Professional Health Careers: Two-Year NYSED Approved CTE Program\***

**Bas 9038**

**Adv 9039**

Students are provided with an exploratory experience of emerging health occupations. Students study the concept of “Life Cycle” and identify factors contributing to positive personal health. The basic course integrates the NYS High School health curriculum. In the advanced year, students develop the skills to obtain entry level employment in the health care field. This program is also designed to help students enhance their leadership, communication and management skills, and professional behavior is embedded throughout. After successful completion of the program, students will have met the clinical and classroom requirements for the NYS Nursing Assistant exam. **Students participating in this program must meet all medical requirements for working in a health care facility (hospital and nursing home). At this time, this includes being fully vaccinated for COVID-19. Students must show proof of meeting medical requirements by the end of the first week of school in the new school year.**

Articulation Agreement(s):

Finger Lakes Community College

Wayne Finger Lakes BOCES LPN Program

### **Trade Electricity: Two-Year NYSED Approved CTE Program\***

**Bas 9019**

**Adv 9020**

Students interested in a future as an electrician participate in this program to learn how to control electricity and to run modern technology. Basic year students study single-phase power systems. They learn to install electrical equipment, which meets industry standards for housing and small business applications, as well as the skill to troubleshoot electrical issues they encounter. Students also examine emerging power systems such as solar, wind, and hybrid technologies. Second-year students study three-phase power systems, conduit installations and special systems installed in commercial and industrial applications such as fire alarm, controls, and low voltage technology. Second-year students may attend a co-op with a local electrical contractor working in the field to attain valuable on-the-job experience while getting paid and earning credit.

Articulation Agreement(s):

Alfred State College

Pennsylvania College of Technology (credit by evaluation)

### **Visual Communication & Photography: Two-Year NYSED Approved CTE Program\***

**Bas 9077**

**Adv 9078**

Students work with a variety of photographic equipment, as well as traditional and digital imaging software from the Adobe Creative Suite in a Mac-based environment. With an emphasis on creative thinking and visual problem solving, students explore and develop their creative voice. During the basic year, students acquire a comprehensive foundation of photographic and graphic design skills. The advanced year sees students refine and apply their skills in projects within the community and for a variety of outside clients. Students who successfully complete the program will be prepared for further study at the college level or entry-level positions in the industry.

Dual Credit: Monroe Community College (3 credits)

### **Welding & Fabrication: Two-Year NYSED Approved CTE Program\***

**Bas 9067**

**Adv 9065**

Welding students learn the technology and art of joining metal by various methods, including Gas Tungsten Arc Welding (GTAW), Gas Metal Arc Welding (GMAW), Shielded Metal Arc Welding (SMAW) and Oxy-Acetylene Welding (OAW). Students also learn gas and electric arc cutting, blueprint reading, electrode selection, joint design, and metallurgy. Students complete test plates to increase skill and accuracy. Students apply welding and cutting skills to fabrication of metal objects and work on customer projects, fabricating, repairing parts/equipment, and performing maintenance.

Articulation Agreement(s):

Alfred State College

Pennsylvania College of Technology (credit by evaluation)

#### **\*NYSED Approved CTE Programs**

NYSED approved CTE programs have through a rigorous initial approval process, and they must get reapproved every five years.

Students in NYSED approved programs are eligible to receive a technical endorsement on their high school diploma provided they meet the criteria.

Technical Endorsement Criteria:

- Complete the graduation requirements for any diploma type (Local, Regents, or Regents with advanced designation)
- Complete a NYSED-Approved Career and Technical Education (CTE) program
  - Complete an Employability Profile
  - Complete work experience opportunity
- Pass each part of a 3-part technical assessment associated with the specific CTE program