MISSION STATEMENT

“The PCSD Community works collaboratively to inspire and prepare our students to be their best, do their best, and make a difference in the lives of others.”

Excellence Today and Tomorrow

COVER IMAGE CREDIT: Evan Cunningham, Mendon High School
Lexi Baehr, Sutherland High School
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The Pittsford Central School District does not discriminate in access, admission, employment, or treatment of participants in any of its programs and activities on the basis of race, religion, age, sex, color, handicapping condition or ethnic or national origin. Inquiries regarding concerns, complaints or other compliance issues related to Title IX may be addressed to the Director for Human Resources, at the District Administration Building at 585-267-1008, and concerns, complaints or other compliance issues related to Section 504 may be addressed to the Director of Special Education, at the District Administration Building at 585-267-1014.
Dear Students:

This program planning guide includes information about the courses that will be available to Pittsford Central School District students who will be in grades 9 through 12 in 2019-2020. It is very important that students and their parents plan an educational program carefully for the next school year. There will be opportunity during the week of January 28th through February 8th to discuss specific course offerings with teachers in all departments. You will be making your course selections for next year before Presidents’ Week recess. The high school program for 2019-2020 will be based on the courses you select at that time. PLEASE BE ADVISED THAT THE OFFERING OF ANY COURSE IS CONTINGENT UPON THE ATTAINMENT OF SUFFICIENT ENROLLMENT.

<table>
<thead>
<tr>
<th>REGENTS and LOCAL DIPLOMA 22 Units of Credit</th>
<th>COURSE</th>
<th>REGENTS DIPLOMA With Advanced Designation 22 Units of Credit</th>
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<tbody>
<tr>
<td>4 Units – 1 Regents Exam</td>
<td>English</td>
<td>4 Units – 1 Regents Exam</td>
</tr>
<tr>
<td>4 Units – 2 Regents Exams***</td>
<td>Social Studies</td>
<td>4 Units – 2 Regents Exams</td>
</tr>
<tr>
<td>3 Units – 1 Regents Exam</td>
<td>Math</td>
<td>3 Units – Regents Exams+</td>
</tr>
<tr>
<td>3 Units – 1 Regents Exam</td>
<td>Science</td>
<td>3 Units* – 2 Regents Exams</td>
</tr>
<tr>
<td>1/2 Unit</td>
<td>Health Education</td>
<td>1/2 Unit</td>
</tr>
<tr>
<td>1 Unit</td>
<td>Art and/or Music and/or DDP</td>
<td>1 Unit</td>
</tr>
<tr>
<td>1 Unit</td>
<td>Language Other Than English (LOTE)</td>
<td>3 Units** – 1 Regents Exam or approved Local Exam est. by NYSED</td>
</tr>
<tr>
<td>2 Units</td>
<td>Physical Education</td>
<td>2 Units</td>
</tr>
<tr>
<td>3 1/2 Units</td>
<td>Electives</td>
<td>1 ½ Units</td>
</tr>
<tr>
<td>22 Units</td>
<td>Total</td>
<td>22 Units</td>
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</table>

Physical Education – A minimum of three periods per calendar week during one semester of each school year and two periods during the other semester.

<table>
<thead>
<tr>
<th>Local Diploma Required Exams</th>
<th>Regents Diploma Required Exams (passing score of 65 or above)</th>
<th>Regents Diploma With Advanced Designation Required Exams (passing score of 65 and above)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• English Language Arts Exam</td>
<td>• English Language Arts Exam</td>
<td>• English Language Arts Exam</td>
</tr>
<tr>
<td>• Math Regents Exam</td>
<td>• Math Regents Exam</td>
<td>• Math Regents Exams +</td>
</tr>
<tr>
<td>• Regents Global History***</td>
<td>• Regents Global History***</td>
<td>• Regents Global History</td>
</tr>
<tr>
<td>• Regents U.S. History***</td>
<td>• Regents U.S. History***</td>
<td>• Regents U.S. History</td>
</tr>
<tr>
<td>• Regents Science***</td>
<td>• Regents Science***</td>
<td>• Two Regents Science Exams</td>
</tr>
</tbody>
</table>

See NYSED General Education & Diploma Requirements website for more information.

See NYSED General Education & Diploma Requirements website for more information.

(Continued next page)
Common Core: Algebra I, Geometry, Algebra II

Science – 3 units must be comprised of commencement level science courses. One course must be from the Physical Setting and one course must be from the Living Environment. The third may be from either life sciences or physical sciences.

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

“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/

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 Pittsford School District has a List of NCAA-approved courses on the Eligibility Center website (www.eligibilitycenter.org). 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 “U.S. Students” where you will find the link for the List of NCAA Courses.
- After checking the list and completing the registration process, request that an initial copy of your transcript be sent to the Eligibility Center by the counseling office.
- For students who have attended more than one high school, the NCAA Eligibility Center will need official transcripts from all high schools attended.
- A final transcript will be sent to the NCAA once a student graduates from the Pittsford School District.
Pittsford Central Schools provides a developmental, sequential school counseling program based on the American School Counseling Association’s National Standards for School Counselors. All students in grades K-12 participate in activities which address personal/social, academic and career objectives and promote the development of attitudes, knowledge and skills necessary for success in school and as citizens of a global society.

School Counselors collaborate with parents, teachers, administrators and other school support staff members to help students become effective learners, achieve personal and social goals and develop into responsible, contributing members of society.

COUNSELING SERVICES:
• Individual personal, social and academic counseling services as needed
• Group counseling experiences
• Educational presentations for parents
• Classroom counseling Instruction
• Career exploration
• Post-Graduation Planning

FRESHMAN YEAR:
• Assistance with course selection
• Individual conferences that may include parents, to develop a flexible four-year educational plan
• Introduction to Naviance

SOPHOMORE YEAR:
• Assistance with course selection
• A unit in career planning, including an occupational interest inventory conducted with the cooperation of the health department
• Assistance in gaining information about careers, colleges and course choices
• Opportunities for shadowing chosen careers (daylong); or for Exploring Careers (multi-session)
• Individual conferences to review four-year education plan and update career and college plan

JUNIOR YEAR:
• Assistance with course selection
• Class meetings in the fall to discuss the Preliminary Scholastic Aptitude Test (PSAT). SAT and ACT information
• Planning for post high school opportunities through group and individual conferences
• Opportunities to meet with college representatives
• Provide information about colleges and careers through the College and Career Center and Naviance program
• Informational meetings for parents & students regarding post-secondary planning and financial aid

SENIOR YEAR:
• Individual conferences with counselor during first semester for post high school vocational and educational planning
• Opportunities to meet with college representatives
• Information regarding topics such as: financial aid, college entrance tests, careers and colleges
• Provide information about colleges and careers through the College and Career Center and Naviance program
• Informational meetings for parents & students regarding post-secondary planning
### FOUR YEAR PLAN OF ROTATING COURSES

**MENDON HIGH SCHOOL**

<table>
<thead>
<tr>
<th>Discipline</th>
<th>Course # &amp; Name</th>
<th>2019-2020</th>
<th>2020-2021</th>
<th>2021-2022</th>
<th>2022-2023</th>
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</thead>
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<td>0652 AP Art History</td>
<td>X</td>
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<tr>
<td></td>
<td>English</td>
<td>055 Theater Arts</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Music</td>
<td>820 Music History</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>825 AP Music Theory</td>
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<tr>
<td>Science</td>
<td>347 Astronomy</td>
<td></td>
<td>X</td>
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<td></td>
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<tr>
<td></td>
<td>325 Genetics</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>324 Microbiology</td>
<td>X</td>
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<td></td>
<td>348 Oceanography</td>
<td>X</td>
<td></td>
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<tr>
<td>Social Studies</td>
<td>145 Contemporary Issues</td>
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<td>X</td>
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<tr>
<td></td>
<td>147 Minority Issues</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td></td>
<td>156 Comparative Religions</td>
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<td>X</td>
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<tr>
<td></td>
<td>144 Vietnam</td>
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<td>X</td>
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<tr>
<td>Technology</td>
<td>722 Manufacturing Systems</td>
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<td>X</td>
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<td></td>
<td>732 Construction Systems</td>
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<td>X</td>
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<td></td>
<td>742 Digital Electronics</td>
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<tr>
<td>World Languages</td>
<td>0453 AP Latin</td>
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<tr>
<td></td>
<td>0454 Latin Literature Honors</td>
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**SUTHERLAND HIGH SCHOOL**

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<th>Discipline</th>
<th>Course # &amp; Name</th>
<th>2019-2020</th>
<th>2020-2021</th>
<th>2021-2022</th>
<th>2022-2023</th>
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<tr>
<td>Art</td>
<td>0652 AP Art History</td>
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<td>825 AP Music Theory</td>
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<td>Science</td>
<td>347 Astronomy</td>
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<td></td>
<td>348 Oceanography</td>
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<tr>
<td>Social Studies</td>
<td>145 Contemporary Issues</td>
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<td>156 Comparative Religions</td>
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<td>144 Vietnam</td>
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<tr>
<td>Technology</td>
<td>722 Manufacturing Systems</td>
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<td>732 Construction Systems</td>
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<td>742 Digital Electronics</td>
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<td>World Languages</td>
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<td>0454 Latin Literature Honors</td>
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### ADVANCED PLACEMENT COURSE OFFERINGS

See course details in each subject area and in the [Advanced Placement Course Profiles Handbook](#) on the Pittsford School District Website. Link: High School Curriculum

- AP Art History
- AP Studio Art & Design
- AP Language and Composition
- AP English Language and Composition
- AP Calculus AB
- AP Calculus BC
- AP Statistics
- AP Computer Science A
- AP Biology
- AP Chemistry
- AP Environmental Science
- AP Physics C
- AP French
- AP Latin
- AP Spanish
- AP Music Theory
- AP Economics: Macroeconomics and Microeconomics
- AP European History
- AP World History
- AP Government and Politics: U.S. and Comparative
- AP Psychology
- AP United States History

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ART EDUCATION COURSES AND SEQUENCE

FINE ARTS SEQUENCES

REGENTS SEQUENCE:
3 Full Units of credit consisting of 1 unit in Studio Art* and 2 units from the courses listed below.
* Studio Art satisfies the New York State requirement in Art or Music and is open to every student regardless of whether or not they desire an art sequence.

ART MAJOR SEQUENCE:
A five-unit sequence in Art may be substituted for the three-unit World Language requirement for a NYS Regents Diploma with Advanced Designation. The 3 and 5 unit sequences may be obtained through a combination of full and half-year courses.

Courses recommended for interest in new media, film, and 3D art & design.
Although some art electives do not require a prerequisite, we strongly suggest taking Studio Art as a foundation course.

**3-D DESIGN SEQUENCE OPTIONS:**

**3-D Design Regents Sequence:** 3 Full Units of Credit to consist of 1 unit of credit in **Studio Art** and 2 full units of credit from a combination of:

- Contemporary Materials I (½ year)
- Contemporary Materials II (½ year)
- Ceramic Arts I (½ year)
- Ceramic Arts II (½ year)
- Sculpture I (½ year)
- Sculpture II (½ year)
- Portfolio (full year)

**3-D Design Major Sequence:** 5 Full Units of Credit to consist of 1 unit of credit in **Studio Art** and 4 full units of credit from a combination of:

- Contemporary Materials I (½ year)
- Contemporary Materials II (½ year)
- Ceramic Arts I (½ – 1 year)
- Ceramic Arts II (½ – 1 year)
- Sculpture I (½ year)
- Sculpture II (½ year)
- Portfolio (full year)
- Advanced Placement Studio in 3-D Design (full year)

**PHOTOGRAPHY/MEDIA ARTS SEQUENCE:**

**Photography/Media Regents Arts Sequence:** 3 Full Units of Credit to consist of 1 unit of credit in **Studio Art** and 2 full units of credit from a combination of:

- Photography I (½ year)
- Graphic Design I (full year)
- Animation I (full year)
- Advanced Photography (½ year)
- Graphic Design II (full year)
- Portfolio (full year)

**Photography/Media Major Arts Sequence:** 5 Full Units of Credit to consist of 1 unit of credit in **Studio Art** and 4 full units of credit from a combination of:

- Photography I (½ year)
- Graphic Design I (full year)
- Animation I (full year)
- Animation II (full year)
- Advanced Photography (½ year)
- Graphic Design II (full year)
- Portfolio (full year)
- Advanced Placement Studio in 2-D Design (full year)

**Special Note:** Any deviation from the prescribed Art Sequence must be met with prior instructor/department leader approval and portfolio review.

**ART EDUCATION ELECTIVES**

Students not pursuing an Art Sequence may take any of the following courses as an elective enrichment to their high school educational experience. No Studio Art prerequisite is necessary for enrollment in these courses however, we strongly suggest taking Studio Art as all Art courses build upon this foundational course.

- Contemporary Materials I
- Contemporary Materials II (Contemporary Materials I prerequisite)
- Ceramic Arts I
- Ceramic Arts II (Ceramic Arts I prerequisite)
- Sculpture I
- Sculpture II (Sculpture I prerequisite)
- Photography I
- Advanced Photography (Photography I prerequisite)
Art Education Course Descriptions

0611 STUDIO ART
GRADES 9-12  ¦  FULL YEAR - 1 UNIT

Studio Art is a comprehensive foundation course in which students will experience a wide variety of media and processes, with hands-on experiences in areas such as drawing, painting, design, composition, print-making, sculpture and computer graphics. The Studio Art course is centered around the Art Content Standards of Creation, Production & Presentation, Connection and Reflection & Response. Each of these areas incorporates both the Elements of Design and the Principles of Organization into the study of Art and the related projects. The understanding of these basics is extended and adapted to all areas through the exploration of a diverse selection of media.

*Studio Art is a prerequisite to Painting and Drawing I, II, Portfolio, Advanced Placement Art, Animation I, Graphic Design I / II and is required for any Fine Art Sequence.*

*Studio Art satisfies the NYS requirement of one credit in Fine Art.*

0621 PAINTING AND DRAWING I
PREREQUISITE:  STUDIO ART or DDP with Art Dept. Leader approval
GRADES 10-12  ¦  FULL YEAR - 1 UNIT

This course offers a strong foundation of exploratory experiences related to drawing and painting. The students will use a wide variety of media, including pencils, charcoal, chalk and oil pastels, acrylic paints and watercolors. The emphasis of this course is to build skill competency while promoting individual growth and creativity. The four Art Content Standards continue as integral components of the learning process. The student will work with a variety of visual references, including the still life, photo resources and life drawing, as they build a strong background of skills and techniques, working toward expanding their personal creative abilities and imagination.

0631 PAINTING AND DRAWING II
PREREQUISITE:  PAINTING AND DRAWING I
GRADES 11-12  ¦  FULL YEAR - 1 UNIT

This course is a continuation of Painting and Drawing I on a more advanced level. The basic skills in handling drawing and painting media have been developed and are used to solve more sophisticated visual problems. Individualized instruction becomes increasingly important as advanced students explore self-expression and creative problem-solving techniques.

0622 GRAPHIC DESIGN I
PREREQUISITE:  STUDIO ART or DDP with Art Dept. Leader approval
GRADES 10-12  ¦  FULL YEAR - 1 UNIT

Graphic Design I will enable students to utilize and explore skills in verbal and visual communication. Learning to follow specifications, deadlines, and verbal presentation, are goals for this course. Problem solving and collaboration are stressed. Real world knowledge of typography, design, color theory, symbolism and text are gained through practical application. Students gain skills in digital image creation and photo editing. Each student is encouraged to attain the independent judgment skills necessary to effectively communicate a consumer message through a visual means.
0632 GRAPHIC DESIGN II  
PREREQUISITE:  GRAPHIC DESIGN I  
GRADES 11-12  ♦  FULL YEAR - 1 UNIT  

Graphic Design II is an advanced course. It involves studio inquiry into the advanced nature of graphic design and a variety of visual problem-solving strategies and visual communication. This course stresses the ever-changing concepts and skills needed to work professionally in the visual communication field. Motion graphics are introduced in this course as well as advanced skills with cutting edge technology.

0623 ANIMATION I  
PREREQUISITE:  STUDIO ART or DDP with Art Dept. Leader approval  
GRADES 10-12  ♦  FULL YEAR - 1 UNIT  

Animation I is a dynamic course offering a strong foundation in traditional and digital animation. This course will explore the history of the moving image and the evolution of animation as an art form. Students build skills in storyboarding, narration and original character development. The bulk of the course will be conducted as a hands-on workshop applying a variety of animation techniques. Methods range from zoetropes, claymation and stop motion to experimental mixed media applications utilizing Adobe Creative Suite with a focus on Adobe Flash.

0634 ANIMATION II  
PREREQUISITE:  ANIMATION I  
GRADES 11-12  ♦  FULL YEAR - 1 UNIT  

Animation II is an advanced course offering designed for students who have mastered the skills required in Animation I and would like to increase their technical abilities and creative approaches. Students will have the opportunity to focus on animations of longer duration and complexity and are encouraged to explore areas of special interest. There is an emphasis placed on independence, strengthening technical pre/post production skills and the creative development.

0633 PHOTOGRAPHY I  
This course is offered at SHS only. See Technology Education PHOTOGRAPHY - BASIC for MHS  
GRADES 9-12  ♦  SEMESTER - ½ UNIT  

An introductory course in 35 mm photography designed to provide students with experience in basic techniques of photography while developing skills in, and appreciation for, the medium as an art form. The student will obtain a working knowledge of the history and nature of photography as well as the camera, its parts and their functions. The exploration of traditional black and white film and papers, 35mm camera handling skills (both film and digital) and darkroom practices and techniques will provide the foundation for the course. An ongoing use of contemporary photographic technologies (digital image capture and fundamental computer imaging skills) will be conducted throughout the semester and interwoven with traditional techniques. Importance will be placed on student growth in aesthetic awareness, compositional understanding, and individual creative expression. It is strongly recommended that students have a 35mm Single Lens Reflex (SLR) film camera.

0643 ADVANCED PHOTOGRAPHY  
PREREQUISITE:  PHOTOGRAPHY I (SHS) / PHOTOGRAPHY - BASIC (MHS)  
GRADES 9-12  ♦  SEMESTER - ½ UNIT  

A course designed for students who have mastered the required skills in Photography I and who desire to increase their technical abilities and creative approaches. Work will continue to be done utilizing both
traditional and contemporary photographic technologies. Students will explore a variety of photographic processes, techniques, and topics which may include portraiture, multiple imaging, digital image capture and digital computer image manipulation. Specific areas of photographic application, such as documentary and fine art photography, will be examined through the study of notable photographers. Students will be encouraged to explore areas of special interest, and emphasis will be placed on independence, strengthening computer imaging skills, and individual creative development.

**0624 CONTEMPORARY MATERIALS I**  
**GRADES 9-12 • SEMESTER - ½ UNIT**  
A challenging and creative course for the student who desires a hands-on experience in art, Contemporary Materials will be enriching to fine arts majors as well as those seeking to enhance their high school year by learning new skills through creative experiences. The course will acquaint the student with a variety of art experiences, which may include jewelry/metals, fiber arts, functional art, clay, or printmaking. The course will explore traditional approaches in each area studied, as well as the contemporary attitudes that are setting new trends in the art world today. Students wishing to take more than one semester of Contemporary Materials may register for Contemporary Materials II.

**0626 CONTEMPORARY MATERIALS II**  
**PREREQUISITE: CONTEMPORARY MATERIALS I**  
**GRADES 9-12 • SEMESTER - ½ UNIT**  
The course continues to hone the skills introduced in Contemporary Materials I. Students taking this course will have the opportunity to pursue a concentrated exploration of a particular area of interest.

**0625 CERAMIC ARTS I**  
**GRADES 9-12 • SEMESTER - ½ UNIT**  
The Ceramic Arts course is designed for the student who is interested in working with clay and the production of both functional and non-functional ceramic art. It includes exploring various methods of hand-building, the use of the potter's wheel, the creation of ceramic sculpture, experimentation with the various methods of handling clay, understanding the properties of glazes, a study of the history of stoneware, and the contemporary uses of clay. Students wishing to take more than one semester of Ceramic Arts may register for Ceramic Arts II.

**0627 CERAMIC ARTS II**  
**PREREQUISITE: CERAMIC ARTS I**  
**GRADES 9-12 • SEMESTER - ½ UNIT**  
Students will more fully explore their personal creativity in the ceramic arts through a concentrated development of a body of work, reflecting growth in skill, technique, and expression.

**0616 SCULPTURE I**  
**GRADES 9-12 • SEMESTER - ½ UNIT**  
This 3-D design course will offer students an introductory investigation of fine art sculptural techniques. Students will experience creating armatures, models, prototypes and will delve into various techniques to complete a finished sculpture. Students will explore a variety of concepts including – mass, volume, form, plane, light, texture and function. These concepts will be reinforced through a range of styles, creative approaches, techniques and media. Working artists of today will be introduced, as well as key art historical figures. Representational, abstract and expressionistic forms will become part of the students’ artistic vocabulary. Students will work with various media that lends itself to this eighteen-week intensive overview of sculpture, such as: wood, clay, wire, paper, fiber, metal, and found objects. Students wishing to take more than one semester of Sculpture may register for Sculpture II.
0617 SCULPTURE II
PREREQUISITE: SCULPTURE I
GRADES 9-12  SEMESTER - ½ UNIT
An opportunity for students to begin a more in depth study of the materials and processes introduced in Sculpture I, which will allow the students to further develop their 3-D design skills. Students will move towards an individual focus and a breadth of work using a variety of materials, concepts and techniques. Coursework will culminate with the completion of a comprehensive 3-D design portfolio.

0641 PORTFOLIO
PREREQUISITE: PAINTING AND DRAWING II or SCULPTURE II or GRAPHIC DESIGN II or ANIMATION II (any of the level II or advanced electives)
GRADE 11-12  FULL YEAR - 1 UNIT
This course is an advanced continuation for those students who desire to further their study of art, focus on portfolio preparation, and expand their personal expressive vision and skills. Students work to further their artistic independence with guided exploration of both familiar and new media, concepts, and techniques. As they build their portfolio of work, students will be encouraged to develop their depth and breadth of work as well as their own creative style. Students may continue on to AP Studio in Art.

0651 ADVANCED PLACEMENT STUDIO IN ART & DESIGN
PREREQUISITE: PORTFOLIO or PAINTING AND DRAWING II or GRAPHIC DESIGN II or ADVANCED PHOTOGRAPHY (with STUDIO ART) or TEACHER RECOMMENDATION
GRADE 12  FULL YEAR - 1 UNIT
ADVANCED PLACEMENT 2D ART & DESIGN
ADVANCED PLACEMENT 3D ART & DESIGN
ADVANCED PLACEMENT DRAWING
Advanced Placement Studio Art is a more specific and intensive course of study which involves developing a more advanced portfolio which will each consist of two sections:

(1) Sustained Investigation (60% of exam score): For all three portfolios, students will submit images and writing to document their inquiry-guided investigation through practice, experimentation, and revision:
   • A minimum of 15 digital images that include works of art and design and process documentation.
   • Typed responses to prompts, providing information about the questions that guided their investigation and how they practiced, experimented, and revised, guided by their questions.

(2) Selected Works (40% of exam score): For all three portfolios, students will submit works of art and design and writing to demonstrate skillful synthesis of materials, processes, and ideas:
   • For AP 2-D Art and Design and AP Drawing: 5 physical works or high-quality reproductions of physical works with written responses on paper describing the materials, processes, and ideas used.
   • For AP 3-D Art and Design: Digital images of 5 works (2 views of each) with typed responses describing the materials, processes, and ideas used.

Students can focus on in-depth, inquiry-based art and design making; on skillful synthesis of materials, processes, and ideas; and on articulating information about their work.
This course supports inquiry-based learning, encouraging students to document their sustained investigation of materials, processes, and ideas through practice, experimentation, and revision. The portfolios will be open to diverse approaches to thinking and making, aligning with college, university, and contemporary disciplinary practices.

High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. Approximately 20-40 hours of drawing/journaling over the summer is suggested.
ADVANCED PLACEMENT ART HISTORY
GRADE 11-12 ♦ FULL YEAR - 1 UNIT
[MHS and SHS: OFFERED 2019-2020 and 2021-2022]

In Advanced Placement Art History, students will explore works of art from the ancient world through the 21st century. This course is designed to offer students the same breadth of content that an introductory college course in art history would provide. Activities in the class will include readings, power point presentations, comparisons, discussions, research, projects, videos, and museum visits. Students will gain knowledge of important works of art and architecture from around the world, including art from beyond the European tradition. Various art media will be studied, including painting and drawing, architecture, sculpture, and other media. Students will examine the historical context of visual ideas, theory and style by considering issues of politics, religion, patronage, gender, function and ethnicity. Additionally, students will be prepared to visually analyze all the major art forms using the elements and principles of design.

Approx. 15 - 20 hours of summer work, such as reading, a museum visit and some writing is suggested.
As business educators, our goal is to prepare students to become productive, contributing members of our communities.

Financial Literacy  Marketing  Management  Leadership  Computer Technology

IMPORTANT INFORMATION ABOUT COURSES, SEQUENCE AND CLUBS

BUSINESS SEQUENCE: A Five-unit sequence in Business may be substituted for the three-unit requirement in World Language for a New York State Regents diploma with Advanced Designation.

COLLEGE CREDIT: SUNY (State University of New York) and SYRACUSE UNIVERSITY (S.U.P.A)
You can earn college credits in many of our Business Courses. We have partnered with SUNY and Syracuse University to offer our students the opportunity to earn college credits that can transfer to colleges and universities across the country. The number of college credits you can earn is posted next to the course description. Not only can students earn college credit while in high school, they can take advantage of the reduced tuition rate as well.

NYS BUSINESS AND MARKETING HONOR SOCIETY
The primary purpose of the New York State Business and Marketing Honor Society is to recognize those students who have demonstrated outstanding achievement in a secondary Business/Marketing program. To apply, students must be currently enrolled in a Business/Marketing course (fall and/or spring) and will have accrued a total of 2 high school credits (2.0 units) by June of the school year of application. Students must hold a GPA of 88 (87.5 or higher) in their business/marketing courses, an overall GPA of 80, and meet reference requirements as stated on the application. Once inducted into the NYSBMHS, students must adhere to the following to graduate with honors:

1) Take at least a minimum of one semester Business/Marketing course per year, for each remaining year of high school
2) Maintain the GPA criteria as stated above
3) Be in good standing with district guidelines as they pertain to the student/parent policies handbook

If you have further questions regarding the NYSBMHS, please contact your respective school's Business Education Department Leader.

DECA is open to all students enrolled in a business or marketing class. It is a student-centered marketing education organization. Working hand-in-hand with the education and business communities, DECA’s goal is for its student members to develop a “career success portfolio” to carry into their business and personal lives after graduation.

LIFE SMARTS is an Internet-based competition comprised of students across the country. The competition covers topics in personal finance, consumerism, health and safety, technology, and the environment. The state level is operated in a game show setting and winners go to national competition.

STUDENT BOOKSTORE (MHS only) offers an opportunity for students to learn about managing a business. By volunteering in our student-run bookstore, students will gain hands on experiences that teaches them critical skills needed to succeed in today’s work place such as time management and money management. Students can earn community service credit for their work!

COOPERATIVE WORK EXPERIENCE - Receive high school credit for your part-time work. See page 16 for more information about Cooperative Work Experience.
It is strongly recommended that students interested in Business take both Business Dynamics I and II in their freshman year. These classes build a strong foundation for continuing on with upper-level Business electives.

0512 BUSINESS DYNAMICS I – CAREER READINESS
GRADES 9-12  SEMESTER 1 - ½ UNIT

Learning how business operates in the 21st century and understanding today’s economy and business trends is essential to the success of our students. This fun, hands-on course gives you the opportunity to not only learn about business, but to explore your place in it — career readiness!

Business and Economics
- Entrepreneurship—Learn what it takes to become an entrepreneur
- Fundamentals of Business—Essential departments like marketing, accounting, management
- Legal Forms of Business—Sole proprietorship, partnership, corporation
- Basic Economic Concepts—Circular flow, supply and demand

Workplace Trends
- Changing Workplace Trends: Where we’ve been and where we’re going
- Identify the skills necessary for the workplace of the future

Your Place in the World of Work
- Career Decision Making Process
  - Completion of self-assessments to discover your values, interests, aptitudes, personality traits and lifestyle goals

Career Research
- Research and report on careers of interest—using the results of your self-assessments

Career Acquisition
- Locate job openings, fill out a job application, create a resume, practice a job interview

0513 BUSINESS DYNAMICS II – INTRO TO PERSONAL FINANCE
GRADES 9-12  SEMESTER 2 - ½ UNIT

Becoming financially literate is a key foundational piece to be successful in the global economic system.

Banking and Finance:
- Understand the importance of financial responsibility
- Checking and Savings Accounts
- Basic Retirement Accounts

Credit:
- Using credit wisely
- How to read a credit report and understand a credit score
- Payroll taxes—what are they?

On the Job:
- Your paycheck—how to calculate your “take-home” pay
- Prepare income tax returns
- Employer/employee rights and responsibilities

Budgeting:
- Create a budget
- Complete a realistic and fun budgeting project where you will

(Continued next page)
Identify a career and beginning salary upon which you will build a budget
Locate, rent, and furnish your first apartment
Purchase a car
Fixed versus variable expense

**Insurance**
Car insurance, health insurance, renter’s insurance, and life insurance

**Consumerism**
Comparison shopping

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**0515 PERSONAL COMPUTER KEYBOARDING**
**GRADES 9-12 • SEMESTER - ½ UNIT [Offered at MHS only]**

KEYBOARDING IS A NECESSARY SKILL IN THIS COMPUTER AGE! This semester course is designed for students who would like to master touch keyboarding techniques in the shortest possible time and increase keyboarding speed and efficiency. Specialized computer software is used, which makes achieving these goals fun! You will also learn and apply word processing basics to create business letters, reports, outlines, tables and other documents. This course is recommended for all students.

**0523 BUSINESS ANALYSIS**
**GRADES 9-12 • SEMESTER - ½ UNIT and THREE (3) COLLEGE CREDITS - SUNY (BUS 104)**

What image comes to mind when you hear the word business? Is it all about having a job? Is it about the merchants you patronize as a consumer; is it all about making a profit? Business drives the economic pulse of a nation. Whether you decide to start your own business, work for a small, family-run business, or sign on with a large international corporation, your achievements will depend on your ability to maintain the constant pace of change in today’s world. This course builds the foundation and discusses the strategies that allow companies to compete in today’s diverse, global and interactive marketplace.

Through lecture, analysis, and group projects you will:
- Understand how economies affect businesses as they operate locally and abroad
- Analyze each area of business operations through real-life business examples.

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**0528 LEADERSHIP DEVELOPMENT SEMINAR**
**GRADES 9-12 • SEMESTER - ½ UNIT**

*If you want to earn high school credit for your Career Internship Program (CIP) or high school credit for your Cooperative Work Experience Program (Co-Op) - you must complete LDS.*

This course is open to all students. Topics include:
- Career portfolio and resumes
- Vision, integrity, ethics, and diversity
- Effective communication, workplace discrimination and harassment

You will build your personal leadership skills and refine your workplace acumen. Seminars meet once a week and students attend during one of their lunch periods (students may eat during the seminar). Three units of college credit (LDS 101) can be earned by Co-Op Students and Student Council members OR Career Internship Students.

*We suggest students take this freshman year where they have more flexibility in their schedules.*

*Leadership Development Seminar is referenced in more detail under Experiential Learning on page 71.*
**0547 COOPERATIVE WORK EXPERIENCE PROGRAM**

**GRADES 9-12 • FULL YEAR - ½ TO 1 UNIT OBTAINABLE EACH OF THE FOUR YEARS OF HIGH SCHOOL**

The Cooperative Work Experience Program (Co-Op) provides students who are taking courses in the Business Department with an opportunity to gain practical work experience related to their classroom instruction by working in jobs within the community. Upon successfully completing the requirements of the Co-Op work experience program, you will earn:

- one-half (½) unit of academic credit for 150 hours of work experience
- or one (1) unit of academic credit for 300 hours of work experience for each year that you are enrolled in the program

Students are eligible to enroll in the Cooperative Work Experience class EVERY year during high school as long as they worked over the summer or work during the school year. This program is under the supervision of a certified teacher coordinator. If you are enrolled in the Co-Op program, you must have also completed Leadership Development Seminar.

*Cooperative Work Experience Program is referenced in more detail under Experiential Learning.*

**0532 ADVANCED MICROSOFT APPLICATIONS**

**GRADES 9-12 • SEMESTER - ½ UNIT and FOUR (4) COLLEGE CREDITS - SUNY (CRC 125)**

The key to productivity is the ability to integrate the capabilities of software. This computer course utilizes realistic activities and projects designed for learning and integrating the Microsoft Office suite of application software: Word, Excel, Access, and PowerPoint.

You will:

- Learn how to prepare professional-looking documents using in-depth advanced word processing skills
- Become competent in database management using Access
- Create Excel spreadsheets, execute formulas and create charts
- Learn and utilize the full range of PowerPoint capabilities

**0533 ACCOUNTING**

**GRADES 10-12 • FULL YEAR - 1 UNIT and FOUR (4) COLLEGE CREDITS - SUNY (ACC 101)**

This course introduces you to the “Language of Business.” Accounting information is the financial foundation for making important business decisions throughout your career and personal life. Whether you manage a business, make investments, or monitor how you receive and use your money, you are working with accounting concepts and accounting information. In this course you will:

- Develop an understanding of the concepts and principles of financial accounting for the business enterprise
- Capture economic events by recording business transactions using double-entry techniques
- Measure net income and prepare financial statements
- Prepare adjusting and closing procedures

On-line resources supplement the curriculum, and realism is created through the use of case studies and computer accounting software.

*Accounting is strongly recommended for all students who will be pursuing a business program after graduation as it provides you with an excellent background for collegiate business courses.*
0534 LAW FOR BUSINESS & PERSONAL USE  
GRADES 11-12  ♦  FULL YEAR - 1 UNIT and SIX (6) COLLEGE CREDITS - SUNY (LAW 101 & LAW 110)

Students in Law for Business & Personal Use will gain greater understanding and appreciation of their legal rights and responsibilities. You will learn basic principles of law which affect businesses and consumers every day.

Topics covered are:
- Our court systems
- The impact of ethics on our laws and decisions
- Family Law
- Criminal Law
- Civil Law
- Property Law
- Estate Law
- Contract Law

Along with these topics you will examine and discuss legal topics of current interests including: student rights, consumer law, negligence, and historical cases. Relevant videos, authentic community and critical thinking debate activities reinforce classroom learning. Field trips to local and state venues are planned.

0535 PRINCIPLES OF MARKETING  
GRADES 9-12  ♦  FULL YEAR - 1 UNIT

Marketing is one of the most important functions in the modern American company today. Billions of dollars are spent each year on products, advertising, and promotion.

In this class you will learn the role marketing plays in our society through “hands-on” instruction and project creation using various multimedia software programs. You will:
- Explore the areas of sales, promotion, advertising, fashion merchandising and retail marketing
- Examine product planning by proposing a new product and making decisions that affect distribution, pricing and promotion
- Engage in authentic market research that can impact your school and/or community
- Design and execute promotions for community/school related projects and activities
- Develop and present a sales demonstration for a product/service of your choice
- Coordinate fashion merchandising promotion campaigns for retail store operations
- Develop, create and produce actual advertisements for a complete advertising campaign which includes choosing various forms of media such as print, broadcast or social media marketing
- Become college and career ready through a focus on dynamic presentation skills

Principles of Marketing is recommended for all students who will be actively participating in DECA and/or those students pursuing a marketing/business career or a college marketing program after graduation.
0536 ENTREPRENEURSHIP
PREREQUISITE: TEACHER RECOMMENDATION
GRADES 11-12  •  FULL YEAR - 1 UNIT and THREE (3) COLLEGE CREDITS - SYRACUSE UNIV. (EEE 370)

The Entrepreneurship course emphasizes small business management theory and practice. The course is designed to assist you in your development of conceptual knowledge and identification of the skills needed to become an entrepreneur. Skills such as:

- Decision making
- Strategic planning
- Human relations management
- Marketing
- Financial management
- Knowledge management
- Risk analysis
- Customer service

These skills are vital to the success of a small business owner. You will select a business for which a business concept model will be developed, incorporating the core principles taught in class. Computer applications, guest speakers, and field trips will be used to enrich the course. Entrepreneurship is recommended for any student who wishes to further their studies in business or pursue a career in business.

0538 ENTERTAINMENT/HOSPITALITY MANAGEMENT & MARKETING
GRADES 10-12  •  SEMESTER - ½ UNIT and THREE (3) COLLEGE CREDITS - SUNY (BUS 135)

Entertainment and hospitality is all around us – not just at the theater or hotels – but on television, radio, in stores and on the Internet. This industry has allowed the United States economy to be one of the most successful in the world. Entertainment and Hospitality play an important role in our global economy. Patrons and companies spend billions of dollars each year on travel, television, restaurants, music and movies. Over 200 American universities today offer majors in Entertainment and Hospitality Management and Marketing as part of their business curriculum.

This course looks at management and marketing through the eyes of the entertainment and hospitality business, allowing you to learn how to:

- Identify marketing trends/concepts and apply them to television, music concerts, event planning, popular resorts and more
- Discover how entertainers manage their careers and market their creative works
- Create a plan for opening a theme restaurant while applying the principles of business management and marketing
- Create winning logos, slogans and mission statements for event planning, theme restaurant, and travel agency businesses you will "run" in this class.

You will immerse yourself in a number of exciting real-world team projects that will allow your creativity to flow as you apply the management and marketing skills you have learned. Guest speakers and field trips will supplement your classroom instruction. Students who are considering a career or a degree in this dynamic field, would benefit greatly from taking this class.
0539 SPORTS MARKETING & MANAGEMENT
GRADES 10-12  ◆  SEMESTER - ½ UNIT

Get ready to learn about one of the fastest and most exciting businesses in the world through this project-based course! Fans and companies spend billions of dollars each year on sports. It is one of the largest exports from the United States to the rest of the world. Universities across the United States today offer major concentrations in sports marketing and management. The Sports Marketing and Management course will help you:

- Learn the basic functions of the sports industry
- Develop a virtual franchise and make all the decisions for promoting and managing it including:
  - Developing promotional plans which may consist of television, radio, and print ads using the latest software from Adobe and Microsoft
  - Working collaboratively to create logos, slogans, and merchandise for your team to create “brand identity”
- Learn the management process, roles, and skills needed by sports managers in this dynamic industry
- Gain knowledge of the history of sports, sports skills, and attitudes needed to be a manager
- Learn the basic functions and responsibilities of management as they apply to sporting events and facilities
- Understand the business finances, budgets, and operations of a sporting venture
- Market school sporting events such as: The Frozen Frontier, Pink the Rink, The Rainbow Classic

In addition, you will explore the exciting variety of careers in sports marketing and management.

0541 WEB PAGE DESIGN
GRADES 10-12  ◆  SEMESTER - ½ UNIT and THREE (3) COLLEGE CREDITS - SYRACUSE UNIV. (IST 263)

This Web design course teaches you how to plan, organize, and create a Website from start to finish. Using Notepad++, you will learn a wide variety of code for HTML, CSS, jQuery, Bootstrap, and WordPress to create and manage professional-quality sites. You will also learn how to create Websites using responsive design, which allows the device you are using to read Web pages differently and more effectively from one device to the next, including your smartphones and tablets. This project-based course teaches you essential Web development skills in some of these Web page elements:

- Hyperlinks
- Tables
- Formatting tools
- Image maps
- Thumbnail images
- Interactive forms and much more!

This course is recommended for those students who want to: Develop or improve your Web design skills; create or improve your personal Website; and explore Web design as a possible career choice.

By the end of this course, you will have created a well-designed Web site while having fun along the way.
0551 FINANCIAL PLANNING
GRADES 10-12  ♦  SEMESTER - ½ UNIT and THREE (3) COLLEGE CREDITS - SUNY (ECO 103)

Financial Planning is designed to develop the skills necessary to be financially competent. This course incorporates all financial aspects from birth to estate planning. Financial Planning is a computer-based semester course that teaches you the importance of starting young—to budget, save, invest, and plan for your financial success.

Topics you will learn Include:
- Cash Management
- Paying for Higher Education
- Renting vs. Owning
- Investing
- Wealth Protection
- Retirement Planning

A virtual stock market simulation is employed throughout the semester. You will also learn how financial software and on-line resources can be utilized to help you make important investment decisions. Upon completion of this course, you will be better equipped to manage your money in our challenging economic environment.

*Students will have the opportunity to achieve New York State Financial Literacy Certification at SHS.
*Students will have the opportunity to achieve Financial Literacy Certification through the EverFi Learning system; sponsored by Pittsford Federal Credit Union at MHS.

0553 VIRTUAL ENTERPRISE PROGRAM
GRADES 11-12  ♦  FULL YEAR - 1-2 UNITS* and THREE (3) COLLEGE CREDITS - SUNY (BUS 110)

The Virtual Enterprise classroom is designed to simulate an authentic business environment with traditional business equipment, furniture, and accessories. The course is aimed at the student who has demonstrated an interest and/or ability in owning, operating, or managing a business. Class size is limited.

Your business enterprise can be in any line of business from service to manufacturing, wholesale to retail. Using the student-developed company website, telephone, email, and other sources of communication you will:
- Interact with an international network of virtual firms to complete all of the real world tasks that are performed by a business
- Secure financing for your business
- Obtain needed materials and supplies to run your business
- Effectively market and promote your products and services to over 1,000 Virtual Enterprise companies throughout the world!
- Create a comprehensive promotional plan for your business including advertisements, sales promotions, commercials, and trade show booths

Although there is no actual transfer of funds, all the usual business transactions take place in an authentic on-line simulation where:
- Financing is obtained
- Inventory is maintained
- Orders are sent
- Invoices are issued
- Financial records are maintained
- Employees and taxes are paid

Real-life competition happens at regional and international trade shows.

*Virtual Enterprise may be taken for two years sequentially. College credit granted only one year.
0554 DIGITAL BUSINESS STRATEGIES (formerly E-Commerce)  
GRADES 9-12  •  SEMESTER - ½ UNIT

Electronic Commerce has dramatically changed the way business is conducted today. Communications and transactions are firmly entrenched within the on-line, global economy!

In this authentic project-based computer course, you will learn both cutting-edge technology currently being used and how to operate an online business through the sale of items on various marketplace apps such as letgo, Facebook, eBay, etc. The topics covered are:

- Basic functions of sales and marketing
- Business aspects of e-commerce including development of an on-line store with Wix.com
- Electronic retailing—how it changed the way products and services are sold
- Internet—how it has impacted shopping, travel, banking, real estate and retail industries
- Internet security—cybercrime and auction technology
- Manage an electronic financial portfolio
- On-line marketing techniques used by industry powerhouses such as Amazon, eBay and Alibaba
- Social media—YouTube, Facebook, Pinterest, blogs, and Twitter—not just for kids anymore! How do businesses use it?

0555 INTRODUCTION TO CYBER SECURITY  
GRADES 11-12  •  SEMESTER - ½ UNIT

Cyber Security (IST 323) is a course that presents fundamental concepts of security, network organization and operation. It will introduce mechanisms and the history of software, hardware, and OS security. Students will differentiate between physical, organizational and personal security. Introduction to Cybersecurity consists of lecture and hands on lab components. By the end of the course, students will be able to:

- Understand how a network functions
- Monitor a network’s functions and performance
- Control a network’s configuration
- Determine what security is and how it relates to a network
- Detect and respond to an attack on a network
- Determine if a network is vulnerable to an attack
- Identify the threats to a network
- Prevent harm to a network
- Analyze the impact of the protection

*There are no prerequisites for this course.*
ENGLISH LANGUAGE ARTS COURSES AND SEQUENCE

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Ninth graders may register for one unit (one full-year course) of English per academic year.
Tenth graders may register for one and a half units of English per academic year.
Eleventh and twelfth graders may register for two units of English per academic year.

The English Department recommends that students enroll in an English course every semester of high school.

Students in grade 10 may select from the following electives in addition to their full-year English classes:
- Creative Writing
- Public Speaking
- Theater Arts

Students in grade 11 may select from the following electives in addition to their full-year English classes:
- Creative Writing
- Mass Media and Society
- Public Speaking
- Theater Arts

GRADE TWELVE ENGLISH OFFERINGS

Full Year Courses
- AP Literature and Composition
- English 12 Honors: Survey of British Literature

Single Semester Courses
Students may select two from the offerings below.
- Contemporary English
- Creative Writing
- Film as Literature
- Humanities
- Mass Media and Society
- Public Speaking
- Studies in Modern Literature
- Theater Arts

NEW YORK STATE BOARD OF REGENTS EXAM IN ENGLISH LANGUAGE ARTS
All students must pass the New York State Regents exam in English Language Arts (Common Core). The three-hour exam is administered at the end of the eleventh grade year. It requires 24 multiple choice questions on readings, one source based argumentative essay, and a shorter text analysis.
LEVELS OF CHALLENGE

REGENTS
Regents courses require a solid investment of time for a wide range of students who have satisfactorily mastered the previous year’s content and skills. Regents students are expected to write frequently in a variety of genres, comprehend and discuss difficult and varied literary works, and demonstrate independence in time management.

HONORS
Honors courses are designed for students who have demonstrated a high aptitude and interest in English literature and writing. Honors students are expected to learn quickly, to work independently, to read sophisticated and varied works of literature in depth, to understand abstract ideas, to participate in lively discussion, to write skillfully, and to budget time independently.

Enrollment requires teacher recommendation.

ADVANCED PLACEMENT
The AP English courses are college level courses and for those students who are highly motivated and wish to pursue the serious study of literature and writing. Readings are sophisticated and varied. Required writings include multiple page papers and some research. Students choosing these courses need exemplary study skills and a serious commitment to the study of writing and literature. In order to be eligible to take AP English, students must have a teacher recommendation from their current English teacher. An average of 90 or better at the end of the first semester in their previous honors level English course could indicate readiness, but is not the sole factor in teacher recommendations.

WRITING CONFERENCES
The English department is committed to the improvement of student writing. Teacher/student conferences are an integral part of the program at all levels.

English Language Arts Course Descriptions

0012 ENGLISH 9 REGENTS
GRADE 9 • FULL YEAR - 1 UNIT
This course covers the major areas of English Language Arts: reading, writing, speaking, and listening. Students will read and analyze a variety of literature genres, including at least one of Shakespeare’s plays. Students will focus on writing, the writing process, research skills, and literary analysis.

0011 ENGLISH 9 HONORS
PREREQUISITE: TEACHER RECOMMENDATION
GRADE 9 • FULL YEAR - 1 UNIT
This course includes additional works of literature and requires writing at the honors level of challenge. The literature is taken from a variety of sources and genres. Consistent, lively, and sophisticated participation is expected.

0022 ENGLISH 10 REGENTS
PREREQUISITE: ENGLISH 9
GRADE 10 • FULL YEAR - 1 UNIT
Students will study literature by genre: novel, short story, drama, poetry, and non-fiction. Essay writing is emphasized, along with the research process. Discussions and literary analysis will be conducted at the Regents level of challenge.
0021 ENGLISH 10 HONORS
PREREQUISITE: ENGLISH 9 and TEACHER RECOMMENDATION
GRADE 10 • FULL YEAR - 1 UNIT
Students will read literature from pre-classical to modern times in different genres. Students will continue developing their writing skills in exposition, literary interpretation, and research at the honors level of challenge. Consistent, lively, and sophisticated participation is expected.

0032 ENGLISH 11 REGENTS
Survey of American Literature
PREREQUISITE: ENGLISH 10
GRADE 11 • FULL YEAR - 1 UNIT
The goal of this course is to foster an understanding of and appreciation for American literature. Readings include selections from historical periods, Puritanism, Romanticism, and Realism, for example, as well as 20th century literature. Students concentrate on the literary essay and the expository composition.

*The course concludes with the NYS Regents Examination in English Language Arts (Common Core).*

0031 ENGLISH 11 HONORS
Survey of American Literature
PREREQUISITE: ENGLISH 10 and TEACHER RECOMMENDATION
GRADE 11 • FULL YEAR - 1 UNIT
This course includes literature from Colonial America to the present. Students will study the elements that make up the movements of American literature and will consistently make connections between literature and culture. Discussion and writing focus on textual analysis at the honors level. Independent study skills and active participation in class discussion are expected. Consistent, lively, and sophisticated participation are expected.

*The course concludes with the NYS Regents Examination in English Language Arts (Common Core).*

0052 AP ENGLISH LANGUAGE AND COMPOSITION
Rhetorical Strategies and American Literature
PREREQUISITE: ENGLISH 10H and TEACHER RECOMMENDATION
GRADE 11 • FULL YEAR - 1 UNIT
This is a rigorous, college level writing-intensive course that engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts. It also requires that students become skilled writers in a variety of genres. Students will read and write deliberately. Though much non-fiction will be read, the students will also read expressive literature from the American canon. In addition, there will be a unique focus on language usage, rhetoric, and arguments. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. All students must pass the NYS Regents Examination in English Language Arts (Common Core) to graduate.

*An extensive summer reading project of approximately 30 hours is required.*
0041 ENGLISH 12 HONORS
Survey of British Literature
PREREQUISITE: ENGLISH 11 and TEACHER RECOMMENDATION
GRADE 12 • FULL YEAR - 1 UNIT
English 12 Honors offers a survey of British literature with special emphasis on particular literary periods and their respective contributions to the Western intellectual tradition. The composition component focuses on modes of writing that the students will be expected to produce in college.

0051 ADVANCED PLACEMENT ENGLISH LITERATURE & COMPOSITION
PREREQUISITE: ENGLISH 11 HONORS or AP ENGLISH LANGUAGE and COMPOSITION and TEACHER RECOMMENDATION
GRADE 12 • FULL YEAR - 1 UNIT
This is a college level course. The emphasis is on critical reading, written literary analysis and oral participation. The course prepares students for the nationally administered test of the College Entrance Examination Board in English Literature and Composition. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.
An extensive summer reading and writing project of approximately 30 hours is required.

ENGLISH LANGUAGE ARTS ELECTIVES

0043 PUBLIC SPEAKING
PREREQUISITE: ENGLISH 9
GRADES 10-12 • SEMESTER - ½ UNIT
Students will write, deliver and evaluate a variety of informal and formal speeches; exemplary models will be presented for purposes of comparison. They will also learn the literary techniques and presentation skills employed in the writing and delivery of such speeches.

0044 CREATIVE WRITING
PREREQUISITE: ENGLISH 9
GRADES 10-12 • SEMESTER - ½ UNIT
This course is for students who want to develop their writing skills in fiction, creative non-fiction, poetry and drama. Students will also develop criteria with which to judge their own and others’ writing through reading and studying published pieces. They will develop a portfolio of their work and make an effort to publish in either the school literary magazine or local and state writing contests.

0055 THEATER ARTS
PREREQUISITE: ENGLISH 9
GRADES 10-12 • SEMESTER - ½ UNIT
[MHS: OFFERED IN 2019-2020/SHS: OFFERED IN 2020-2021]
The course will provide an overview of theater history and will introduce students to some of the elements of play production, including dramatic reading, line memorization, rehearsing and performing before an audience. Students will receive training in warm-up exercises, improvisation, projection and diction, stage movement, script analysis, costuming, and set design. The instructor will discuss with students some of the challenges involved in actual stage production. Students will prepare and perform monologues, dialogues, and scenes that reflect a wide range of styles and methods of characterization.
0035 HUMANITIES  
PREREQUISITE: ENGLISH 11  
GRADE 12 • SEMESTER - ½ UNIT  
This course investigates the cultural aspects and movements that define us as human beings. In an effort to understand what defines us as individuals as well as parts of a greater community, teachers and students will explore a wide range of the facets of the human condition, among which are literature, film, art, design, architecture, and music.

0049 STUDIES IN MODERN LITERATURE  
PREREQUISITE: ENGLISH 11  
GRADE 12 • SEMESTER - ½ UNIT  
Students and teachers will discuss and explore how literature reflects modern society and its views through an examination of novels, short stories, biographies, dramas, poems, and films. Studies will culminate in essays of critical analysis, class discussion, and writing across genres.

0042 FILM AS LITERATURE  
PREREQUISITE: ENGLISH 11  
GRADE 12 • SEMESTER - ½ UNIT  
This course will focus on the study of film by applying much of the terminology of literary study and many of the strategies of reading to the process of “reading” a film. Close attention will also be paid to elements of filmmaking that differ from techniques of literature and how these elements, along with the traditional literary elements, create works which are worthy of repeated study. Students will examine film as it relates to and is influenced by values in popular culture. This course will also focus on the major directors and movements in film history. As with all senior electives, Film as Literature is a reading and writing intensive course designed to improve the critical faculties and literacy levels of our students.

0036 MASS MEDIA AND SOCIETY  
PREREQUISITE: ENGLISH 10  
GRADES 11-12 • SEMESTER - ½ UNIT  
This is a twenty-week writing intensive class that encourages students to identify the importance of media literacy. Students will explore the power and influences of journalism as well as electronic media in our world today. Information will be gleaned from a variety of sources, and students will learn how to assess the reliability and inherent value of such sources. This is a course that hopes to produce media-savvy students who, in turn, will become discriminating readers, viewers, and consumers.

0047 CONTEMPORARY ENGLISH  
PREREQUISITE: ENGLISH 11 AND TEACHER RECOMMENDATION  
GRADE 12 • SEMESTER - ½ UNIT  
This course includes writing, reading, discussion, and analysis of current social and cultural issues represented in novels, short stories, and other genres of literature, including non-fiction. The pace and tenor of this work are largely functions of student need. Students will be encouraged to read and enjoy literature as a life-long pursuit.
The Health Education requirement for secondary students is met by successfully completing a semester of instruction in grade 10.

The goal of Health Education is to help students acquire the skills and knowledge necessary to independently make healthy and responsible choices regarding their personal wellness throughout their lifetime. Health Education provides students a safe, structured environment in which they can explore and discuss with their peers and teacher important health issues. The 7 Habits of Highly Effective Teens by Sean Covey will be read and used extensively throughout the course. The concepts from the book will serve as a foundation for the course discussions and activities. Students in Health Education will also receive active training in the New York State mandate of Hands-Only CPR and a basic introduction to the Automatic External Defibrillator (AED).

Skills and knowledge taught in Health Education include:

Wellness: Stress management, time management, sleep, nutrition, positive body image, humor, goal setting, and lifestyle diseases.

Mental Wellness: Mental health, depression, anxiety disorders, eating disorders, suicide prevention, self-injury; accessing community resources for help; how to be a supportive friend.

Substance Abuse Prevention: Perceptions of peer drug use, drug categories, tobacco, alcohol, addiction, DWI and the NYS mandate of heroin/opioid abuse.

Relationships: Healthy/unhealthy/dangerous relationships, communication, abstinence, sexual assault, sexuality, contraceptive methods, pregnancy, sexually transmitted illnesses, HIV and AIDS.
The School Library instructional program is based on the national standards of the American Association of School Librarians and the New York State P-12 Common Core Learning Standards (CCLS). These standards promote inquiry-based learning and foster the development of foundational, transferable skills that students will use to continue learning throughout their lives. Students are encouraged and empowered to become independent thinkers, skilled researchers and creative communicators.

Students are taught how to plan and structure their research, apply effective online search strategies and evaluate information according to specific criteria. They learn to use a variety of tools and media to effectively communicate, create and share their knowledge with others. As members of a learning community, they are taught to respect intellectual property and to adhere to the principles governing the legal and ethical use of information and ideas.

Working with rich collections of print and digital materials, students learn to use multiple sources of information and to seek out diverse opinions and perspectives as they construct their own understandings.

Resources
With their extensive collections of carefully selected books, eBooks, periodicals, online databases, and digital repositories of downloadable images, audiobooks and video recordings, the MHS and SHS libraries provide students and staff with access to millions of high-quality educational resources. As members of the BOCES School Library System and Rochester Regional Library Council, the libraries can borrow materials for students and staff from hundreds of area school, public and college libraries. The library’s Web-based catalog and online resources can be accessed from any Internet-connected computer twenty-four hours a day, seven days a week.

Facilities
The school library has instructional spaces equipped with computers, interactive boards and multimedia projectors as well as quiet spaces for individual and group study and reading. Computers, copiers, printers and scanners are available for use by classes and individuals.

Staff
Each library is staffed by a full-time school librarian. School librarians hold Master’s Degrees and New York State certification. The library support staff includes paraprofessionals, a secretary and an audiovisual assistant.
MATHEMATICS COURSES AND SEQUENCE

8th grade
- Algebra CC* (High School Credit)
  - Algebra Regents Exam

9th grade
- Geometry Common Core Honors
- Geometry Common Core
  - Geometry Regents Exam
  - Geometry Regents Exam

10th grade
- Algebra II* Common Core Honors
  - Algebra II Common Core
  - Algebra II Regents Exam
  - Algebra II Regents Exam

11th grade
- Pre-Calculus Honors
- Pre-Calculus

12th grade
- AP Calculus BC
- AP Calculus AB
- Introduction to College Mathematics

- AP Statistics (May be taken concurrently with Pre-Calculus)

- Pre-Calculus
- Functions and Trig
- Decision Making with Mathematics

Computer Science Principles
- AP Computer Science A
- Multivariable Calculus

*For those courses that culminate in a Regents exam, course credit is awarded only upon completion of that exam.
Mathematics Course Descriptions

Students entering ninth grade in September 2009 or later are required to successfully complete a minimum of three years of high school mathematics and achieve a passing grade on the NYS Algebra I Regents Exam. In addition to the Regents Diploma requirements, students pursuing the Regents Diploma with Advanced Designation will need to achieve a passing grade on the NYS Geometry and NYS Algebra II Common Core Exams.

CALCULATORS

Graphing calculators are required for all NYS Regents Exams in Mathematics. They will be used in lessons, assignments, and assessments throughout the year to develop students’ mathematical reasoning and skills to appropriately use technology to aid in problem solving. If purchasing a graphing calculator, the mathematics department recommends the TI-NspireCX (non CAS). The TI-NspireCX (non CAS) can be upgraded and is acceptable on other standardized tests (ACT, SAT).

The TI-Nspire with CAS (Computer Algebraic System) may be used in AP Calculus and AP Statistics only. CAS is not acceptable in any other classes, nor is it acceptable on Regents exams or some standardized tests (ACT).

0217 ALGEBRA I
PREREQUISITE: MATH 8
FULL YEAR - 1 UNIT

Students begin the high school mathematics program studying five strands that incorporate the Common Core Learning Standards. These strands are (1) Relationships between Quantities and Reasoning with Equations, (2) Linear and Exponential Relationships, (3) Descriptive Statistics, (4) Expressions and Equations, and (5) Quadratic Functions and Modeling. This course requires students to use algebra in context to solve problems and investigate applications. Students will interpret functions given graphically, numerically, symbolically and verbally. Students will apply linear, quadratic and exponential models to data that exhibit a particular trend. They will also interpret that data and use models to predict future outcomes. Students are required to use a graphing calculator in this course. The course concludes with the NYS Algebra I Regents exam.

0216 GEOMETRY COMMON CORE
PREREQUISITE: ALGEBRA I
FULL YEAR - 1 UNIT

This course focuses on five areas that incorporate the Common Core Learning Standards. The units include (1) Transformations, Constructions, Congruence, and Proof (2) Similarity, Proof and Trigonometry, (3) Three Dimensional Geometry, (4) Coordinate Geometry, and (5) Circles. Students use transformations to develop similarity and congruence concepts. Students use triangle congruence and similarity to develop formal proof. Their experience with two-dimensional shapes expands to include three-dimensional objects. Segments, lines, polygons, circles and parabolas are investigated in the coordinate plane. Students are required to use a graphing calculator in this course. The course concludes with the NYS Geometry Regents exam.
0216H GEOMETRY COMMON CORE HONORS  
PREREQUISITE: ALGEBRA I AND TEACHER RECOMMENDATION  
FULL YEAR - 1 UNIT

This course is offered to highly motivated students who have shown a high aptitude in mathematics and outstanding performance in Algebra I. Topics listed in Geometry (above) will be studied in this class in greater depth with challenging applications. Students will develop a precise approach to proof and rigorous problem solving skills. They will determine measurements of triangles by applying trigonometric skills. Students are required to use a graphing calculator in this course. This course concludes with the NYS Geometry Regents exam.

0219 GEOMETRY  
PREREQUISITE: ALGEBRA I  
FULL YEAR - 1 UNIT

In this first year of Geometry, students will explore the topics of planar geometry, and polygons with a focus on triangles and quadrilaterals, circles, measurement, and three-dimensional solids. Students will apply and reinforce their algebra skills by solving geometry problems in context and investigating applications. Students are required to use a graphing calculator in this course.

0218A ALGEBRA II COMMON CORE  
PREREQUISITE: GEOMETRY COMMON CORE  
FULL YEAR - 1 UNIT

Students continue their study of functions including polynomial, exponential, rational and radical functions. They build and interpret functions that model a relationship between two quantities by analyzing key features of the graphs and equations. Students make sense of periodic behavior as they study trigonometric functions and build fluency with values of sine, cosine, and tangent at various angle measures. Equation solving strategies expand to include higher degree polynomials and quadratics over the complex number system and exponential equations using the properties of logarithms. Coursework includes probability, statistics, modeling and applications with extensive use of the graphing calculator. The course concludes with the NYS Algebra II Common Core Regents exam.

0218H ALGEBRA II COMMON CORE HONORS  
PREREQUISITE: GEOMETRY H AND TEACHER RECOMMENDATION  
FULL YEAR - 1 UNIT

For students who have shown a high aptitude in math and outstanding performance in previous math classes, this course continues the study of algebra at the intermediate level covering the same topics as above but in greater depth with challenging extensions. The course concludes with the NYS Algebra II Common Core Regents exam.
0218R ALGEBRA II
PREREQUISITE: GEOMETRY COMMON CORE OR GEOMETRY
FULL YEAR - 1 UNIT
Students enrolled in this course study the intermediate algebra portion of the Common Core Algebra II curriculum. They continue their study of functions including polynomial, exponential, rational, radical and logarithmic functions. They build and interpret functions that model a relationship between two quantities by analyzing key features of the graphs and equations. Equation solving strategies expand to include higher degree polynomials and quadratics over the complex number system. Systems of simultaneous equations including 2 x 2 polynomial systems and 3 x 3 linear systems are solved analytically and graphically. Throughout the course, the graphing calculator is used for modeling and applications. This course concludes with a local final exam.

0248H PRECALCULUS H
PREREQUISITE: ALGEBRA II COMMON CORE HONORS AND TEACHER RECOMMENDATION
FULL YEAR - 1 UNIT
This course is designed for the most capable students who will study function theory and applications of polynomials and rational functions, inequalities, trigonometry, exponents and logarithms, polar coordinates and equations, conic sections, parametric equations and limits. A few weeks of the year will be devoted to calculus topics including the derivative and its application to curve sketching. This course concludes with a local final exam.

0248A PRECALCULUS
PREREQUISITE: ALGEBRA II COMMON CORE AND at least a 3 on the ALGEBRA II CC Regents Exam
FULL YEAR - 1 UNIT
This course is designed for students who successfully completed Algebra II CC. In this course students study function theory and applications of polynomials and rational functions, inequalities, trigonometry, exponential and logarithmic functions and limits.

0248R FUNCTIONS AND TRIGONOMETRY
PREREQUISITE: ALGEBRA II
FULL YEAR - 1 UNIT
Students in this course study functions and trigonometry. Topics include relations and functions, rational equations and inequalities, exponential and logarithmic functions, transformations and trigonometry, mathematical modeling, and applications of algebra and trigonometry. Students continue to use graphing calculators to investigate relationships among functions and critical attributes of a wide variety of functions.

0245 INTRODUCTION TO COLLEGE MATH
PREREQUISITE: PRECALCULUS
GRADE 12 • FULL YEAR - 1 UNIT
This course is available to students who have successfully completed Pre-calculus. During the first semester, calculus is explored through the interpretation of graphs and tables as well as analytic methods. The second semester is a survey of mathematical topics which may include: statistics, number theory, finance, matrices, logic and history. Students will continue to use graphing calculators throughout this course.
0280 DECISION MAKING WITH MATHEMATICS
Blended Learning Course
PREREQUISITE: ALGEBRA II AND 3 YEARS OF HIGH SCHOOL MATHEMATICS
GRADE 11 OR 12 • FULL YEAR - 1 UNIT
This course is available to students who have successfully completed at least 3 years of mathematics, including Algebra II. The Blended Learning model of instruction combines in-class instruction with interactive online learning. Students will learn to use mathematics to inform decision making in statistics and finance through the study of data analysis, modeling, probability, and the mathematics of financial applications. The goals of this course also include the development of self-pacing skills, digital communication, college online readiness and appropriate use of technology/online resources.

0251 ADVANCED PLACEMENT CALCULUS AB
PREREQUISITE: PRECALCULUS AND TEACHER RECOMMENDATION
FULL YEAR - 1 UNIT
This is a college level course comparable to the first semester of college calculus, based on the AB syllabus of the College Board. Material studied will include limits and continuity, differential and integral calculus, their applications, and elementary differential equations. The course is intended not only for the extremely able student but for the mature, highly motivated student whose past performance in math has been excellent, and who is willing to spend an average of six to eight hours a week in outside study of the subject. The student’s commitment to meeting the challenge of the course is critical to his/her success. High School course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

0253 ADVANCED PLACEMENT CALCULUS BC
PREREQUISITE: PRECALCULUS H AND TEACHER RECOMMENDATION
FULL YEAR - 1 UNIT
This is a rigorous college level course comparable to the first and second semester of college calculus, based on the BC syllabus of the College Board. Material studied will include limits, differential and integral calculus, their applications, infinite series, and differential equations. The course is intended not only for the extremely able student but for the mature, highly motivated student whose past performance in math has been superior, and who is willing to spend an average of six to eight hours a week in outside study of the subject. The student’s commitment to meeting the challenge of this course is critical to his/her success. High School course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

0252 ADVANCED PLACEMENT STATISTICS
PREREQUISITE: PRECALCULUS OR PRECALCULUS CONCURRENTLY
FULL YEAR - 1 UNIT
This is a college level non-calculus based introductory course in statistics. It is intended for strong math students who have successfully completed Pre-calculus or are currently enrolled in Pre-calculus. Good writing skills are necessary. The purpose of this course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The syllabus is divided into four major themes: exploratory analysis, planning a study, probability and statistical inference. High School course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. Many colleges award advanced placement, credit or both on the basis of examination results.
0254 MULTI-VARIABLE CALCULUS
PREREQUISITE: BC CALCULUS
FULL YEAR - 1 UNIT
This is a rigorous college level class equivalent to Calculus III in some schools of higher education. Students will study equations of lines and planes in 3 dimensions, using fundamental vector properties. In particular, they will study vector functions, their derivatives and integrals. The Calculus of functions in Cartesian, cylindrical and spherical coordinate systems as well as vector calculus are part of the program. Students will use computer and calculator technology to enhance their experience. Additional advanced topics may be uncovered based on student interest and time available.

0780 COMPUTER SCIENCE PRINCIPLES
PREREQUISITE: ONE UNIT OF REGENTS SCIENCE AND ALGEBRA I AND GEOMETRY
GRADES 10-12 • FULL YEAR - 1 UNIT
This course is designed to introduce students to the world of programming. Students create apps for mobile devices, automate tasks in a variety of languages, find patterns in data, and interpret simulations. Students work in teams to develop computational thinking, solve problems and utilize computational tools that foster creativity. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems allow for various levels of entry whether students are novice or developing program writers. Each unit focuses on one or more computationally intensive career paths. The course invites students to consider the societal impact of computing, both present and future.

*Students participating in this course have the option of taking the AP Computer Science Principles Exam.*

0255 ADVANCED PLACEMENT COMPUTER SCIENCE A
PREREQUISITE: COMPUTER SCIENCE PRINCIPLES OR ALGEBRA II CC AND TEACHER RECOMMENDATION
FULL YEAR - 1 UNIT
This is a programming course with a major emphasis on methodology, algorithms, logic, and data structures using Java and based on the College Board syllabus. Object-oriented programming is studied and applied using hands-on structured lab components to design, implement, and analyze solutions to problems. High School course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.
MUSIC EDUCATION COURSES AND SEQUENCE

COURSES:

Band (Wind and Percussion)
- Concert Band 1 Full Unit
- Wind Ensemble 1 Full Unit

Orchestra (Strings)
- Chamber Orchestra 1 Full Unit
- Symphony Orchestra 1 Full Unit

Choral
- Concert Choir 1 Full Unit
- Polyphonic Choir 1 Full Unit or ½ Unit
- Women’s Chorale 1 Full Unit or ½ Unit

Electives
- Voice Class 1 Full Unit or ½ Unit
- Music History ½ Unit
- Music Theory 1 Full Unit
- AP Music Theory 1 Full Unit
- Applied Music (Piano) ¼ Unit
- Applied Music (Guitar) ¼ Unit

SEQUENCES:

A Regents Sequence in Music can be obtained by participating in one of the Band, Orchestra or Choral Ensembles for three full years and the completion of one year of Music Theory.

A five-unit sequence (four full years of a Band, Orchestra or Choral Ensemble and one year of Music Theory OR three full years of a Band, Orchestra or Choral Ensemble, Music Theory and one additional full unit elective) in music may be substituted for the three-unit World Language requirement for a NYS Regents Diploma with Advanced Designation.

HONORS DISTINCTION PROGRAM:

Students participating in any major performing ensemble may elect to pursue an Honors Distinction for these courses. Students may apply for participation in the fall of any year. By participating in various pre-determined activities such as solo festivals, extra-curricular performing ensembles, musicals, approved community ensembles, etc., students acquire points towards the honors distinction. Application contracts and details are available from all music teachers.

REQUIREMENTS:

One full year of a Band, Orchestra or Choral Ensemble fulfills the New York State requirement of one credit of Fine Art. Prerequisites are listed by class. Some require an audition.
0816 **VOICE CLASS**  
**NO PREREQUISITE**  
GRADES 9-12  
FULL YEAR - 1 UNIT*

Voice classes will foster the development of the fundamentals of vocal production and techniques. This course provides students the opportunity to learn solo repertoire appropriate to the individual’s vocal ability. The course is designed to include ear training and sight singing methodology. These concepts provide the foundations for students to participate in solo competitions at all levels. If enrollment for this class warrants, two sections will be run with students placed in the section most appropriate for their individual development and ability.

0822 **POLYPHONIC CHOIR**  
**NO PREREQUISITE**  
GRADES 9-12  
FULL YEAR - 1 UNIT*

This choir offers an opportunity to develop and improve individual singing skills while participating in a major performing ensemble. Teaching emphasis is placed on correct vocal techniques, sight-reading ability, production of choral tone, and interpretation of various choral styles. A variety of choral literature using a variety of languages will be rehearsed and performed in periodic public concerts. This choir will perform a minimum of three times during the year, and these performances are a required aspect of this course.

0821 **CONCERT CHOIR**  
**PREREQUISITE: AUDITION**  
GRADES 10, 11, 12  
FULL YEAR - 1 UNIT

The concert choir is a select vocal ensemble of advanced singers who perform difficult repertoire and concert works of various styles and time periods for school, community, special programs and competitions. The repertoire will be selected from NYSSMA levels 5 and 6, as well as a variety of other sources selected by the director. Designed for the more experienced singer, the Concert Choir studies the major elements of choral music which includes, but is not limited to, control and refinement of voice production, tone color, dynamics, articulation, intonation, balance and diction in a variety of languages. Auditions for this choir will be done during the second semester of the previous school year. This choir will perform a minimum of three times during the year, and these performances are a required aspect of the course.  
*Note: Members of this ensemble wear specified concert attire for their performances.*

0823 **WOMEN’S CHORALE**  
**PREREQUISITE: OPEN TO ALL FEMALE STUDENTS**  
GRADES 9-12  
FULL YEAR - 1 UNIT*

Women’s Chorale offers an opportunity for students to study literature written for women. Emphasis will be placed on vocal technique, blending and development of the female voice. The repertoire includes music of various styles and historical periods. This choir will perform a minimum of three times during the year, and these performances are a required aspect of the course.  
*Note: Members of this ensemble wear specified concert attire for their performances.*

*Alternate day scheduling is available.*
**0818 CHAMBER ORCHESTRA**
**PREREQUISITE: TEACHER RECOMMENDATION**
**GRADES 9-12  •  FULL YEAR - 1 UNIT**

Chamber orchestra is comprised of the four major string instruments — violin, viola, cello, and string bass. This major instrumental ensemble is comprised of students who generally have a minimum of four years of playing experience. The repertoire includes classical string orchestra masterpieces by various composers and encompasses a wide variety of musical styles. Students are required to participate in rehearsals, performances, and weekly rotating lessons. This orchestra will perform a minimum of three times during the year, and these performances are a required aspect of the course. This ensemble will occur on a yearly basis depending on student enrollment, and will encompass students in grades 9-12.

**0810 SYMPHONY ORCHESTRA**
**PREREQUISITE: AUDITION AND TEACHER RECOMMENDATION**
**GRADES 10-12  •  FULL YEAR - 1 UNIT**

Symphony Orchestra is a select ensemble comprised of the four major string instruments, violin, viola, cello, and string bass. The repertoire includes both string orchestra and full orchestra works by a variety of composers. Music is selected from many musical styles and periods and represents a performance level of V or VI in the NYSSMA manual. Each member of the orchestra is required to attend rotating class instrumental lessons in school once per week. This orchestra will perform a minimum of three times during the year, and these performances are a required aspect of the course. Activities may include evening concerts, competitions, and school and community performances. At designated concerts, winds, brass and percussion from the wind ensemble are added to the orchestra. These students join the orchestra rehearsals at designated times, in preparation for full orchestra concerts. *Auditions for this ensemble are held early 2nd semester and are open to upcoming 10th, 11th, and 12th graders.*

*Note: Members of this ensemble wear specified concert attire for their performances.*

**0811 WIND ENSEMBLE**
**PREREQUISITE: AUDITION AND TEACHER RECOMMENDATION**
**GRADES 10-12  •  FULL YEAR - 1 UNIT**

Wind Ensemble is a major instrumental ensemble comprised of selected students. Placement into this ensemble is based on teacher recommendation and audition. Repertoire ranges from classical to contemporary and represents a performance level of V or VI in the NYSSMA manual. This band will perform a minimum of three times during the year, and these performances are a required aspect of the course. Activities may include assemblies, evening concerts, competitions, and community performances. Some students may be selected to perform with the symphony orchestra, as needed. Each member is required to attend rotating class instrumental lessons in school once per week on their primary instrument. *Auditions for this ensemble are held early 2nd semester and are open to upcoming 10th, 11th, and 12th graders.*

*Note: Members of this ensemble wear specified concert attire for their performances.*

**0812 CONCERT BAND**
**PREREQUISITE: TEACHER RECOMMENDATION**
**GRADES 9-12  •  FULL YEAR - 1 UNIT**

Concert Band is a major instrumental ensemble comprised of students who generally have a minimum of four years of playing experience. Placement into this ensemble is based on teacher recommendation. Repertoire ranges from classic to contemporary and represents a performance level IV and higher, based upon the NYSSMA manual. Each member is required to attend rotating class instrumental lessons in school once per week on their primary instrument. This band will perform a minimum of three times during the year, and these performances are a required aspect of the course. The enrollment will encompass students in grades 9-12.

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0817 MUSIC THEORY
GRADES 9-12 • FULL YEAR - 1 UNIT
This course takes a very in-depth look at the structure of music and the process by which sounds are created and organized into the art form – music. Detailed study of the fundamentals of music, including music notation, melody, rhythm, and harmony are basic to the course as well as some study of styles and historical periods of music. There is an emphasis on basic analysis and compositional techniques, sight singing, ear-training and the development of basic keyboard skills, plus some composing. While not a prerequisite, previous exposure to music through a performing ensemble or other musical venue is recommended before considering this course.

0825 ADVANCED PLACEMENT MUSIC THEORY
PREREQUISITE: MUSIC THEORY, OR PLACEMENT EXAM AND TEACHER RECOMMENDATION
GRADES 10-12 • FULL YEAR - 1 UNIT
[MSH: OFFERED IN 2019-2020 AND 2021-2022, SHS: OFFERED IN 2020-2021 AND 2022-2023]
The Advanced Placement Music Theory course consists of a college level teaching approach to the theoretical music concepts of form, analysis, part writing, composition and advanced ear training. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. Many colleges and schools of music award credit on the basis of these exam results. Students are required to successfully complete the course in music theory as a prerequisite to this course, or demonstrate proficiency through a placement exam coupled with the teacher’s recommendation.

0820 MUSIC HISTORY
GRADES 9-12 • SEMESTER - ½ UNIT
This class will take the learner from the beginning of recorded time and the impact music had on the world, working through all of the time periods of music through today! Music History will include music of the Eastern and Western Worlds though it will look mostly at Western Music and its impact on today’s music. Genres such as musical theater, jazz, opera, and contemporary music will be studied as well. There will be a performance piece as a part of the class utilizing keyboards and a professional computer generated music composition program such as Sibelius or Finale. This class will earn the student ½ credit toward their New York State Requirement in the Arts. The student can take an additional qualified ½ credit course to achieve their required Arts Credit.

0824P APPLIED MUSIC – PIANO
GRADES 9-12 • FULL YEAR - ¼ UNIT
Students who study piano privately may receive ¼ credit per year provided certain requirements are met. For application forms and enrollment information, students should contact the building or District Leader for Music.

0824G APPLIED MUSIC – GUITAR
GRADES 9-12 • FULL YEAR - ¼ UNIT
Students who study guitar privately may receive ¼ credit per year provided certain requirements are met. For application forms and enrollment information, students should contact the building or District Leader for Music.
Our program is guided by both the National and State Standards for Physical Education

National Standards for K-12 Physical Education

The physically literate individual:

**Standard 1** - demonstrates competency in a variety of motor skills and movement patterns

**Standard 2** - applies knowledge of concepts, principles, strategies and tactics related to movement and performance

**Standard 3** - demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness

**Standard 4** - exhibits responsible personal and social behavior that respects self and others

**Standard 5** - recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction

New York State Learning Standards for Physical Education

**Standard 1** – Personal Health and Fitness – Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health

**Standards 2** – A Safe and Healthy Environment – Students will acquire the knowledge and ability necessary to maintain a safe and healthy environment

**Standard 3** – Resource Management – Students will understand and be able to manage their personal and community resources

**PHYSICAL EDUCATION INSTRUCTIONAL UNITS MAY INCLUDE (But not limited to):**

Aerobics, Archery, Badminton, Basketball, Cross Country Running / Jogging, CPR, Dance, Fitness Walking, Flag Football, Floor Hockey, Golf, Indoor Soccer, Kayaking, Lacrosse, Personal Fitness/Weight Training, Orienteering, Pickleball, Project Adventure / Cooperative Games, Rugby, Self-Defense, Soccer, Softball, Speedball, Swimming, Table Tennis, Team Handball, Tennis, Volleyball, Self-Defense, Ultimate Frisbee, Yoga

**ADAPTED PHYSICAL EDUCATION**

An adapted program is available for students with medical and special needs. Student placement in this program is determined by the Committee on Special Education.

**INTRAMURAL ACTIVITIES MAY INCLUDE (Based on sufficient student interest):**

Badminton, Weight Training/Conditioning/Personal Fitness, Basketball, Table Tennis, Team Handball, Floor Hockey, Pickleball
Students and parents are reminded to read over the course descriptions to make sure they are aware of any prerequisites.

**REGENTS SEQUENCE**

- Physical Setting: Earth Science (Regents and Honors)
  - Living Environment: Biology (Regents and Honors)
    - Physical Setting: Chemistry R
    - Physical Setting: Chemistry G
    - Physical Setting: Chemistry H
    - Physical Setting: Physics R
    - Physical Setting: Physics H
    - Physical Setting: Physics G
  - AP Physics
  - AP Biology
  - AP Chemistry
  - AP Environmental

**SCIENCE ELECTIVES**

**Sutherland High School**
- Animal and Human Behavior
- Astronomy
- Computer Science Principles
- Criminalistics
- Human Anatomy and Physiology I
- Human Anatomy and Physiology II
- Oceanography

**Mendon High School**
- Animal and Human Behavior
- Astronomy
- Computer Science Principles
- Criminalistics
- Genetics
- Human Anatomy and Physiology I
- Human Anatomy and Physiology II
- Microbiology
- Oceanography
LEVELS OF CHALLENGE

Regents (R)
These courses are based on the NY State Program Guide. Course credit is awarded only upon completion of the NYS Regents exam.

Honors (H)
This course is an enriched version of the Regents level course. Students electing this course should have experienced success in previous sciences. Course credit is awarded only upon completion of the NYS Regents exam.

General (G)
These full-year courses are designed for serious students who are not planning to pursue a science major in college, but who would benefit from further science study in specific disciplines. Local credit is awarded.

Advanced Placement (AP)
These are introductory college level courses. Many colleges award advanced course placement, college credit, or both on the basis of these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

Electives
These semester descriptive courses are designed for serious students with an interest in specific science topics. Local credit is awarded.

Science Course Descriptions

0311 PHYSICAL SETTING: EARTH SCIENCE R
PREREQUISITES: ALGEBRA I or ALGEBRA I CONCURRENT
GRADES 9-12 • FULL YEAR - 1 UNIT

This course is a study of the major areas of Earth Science including; Geology, Astronomy, and Meteorology. Students investigate such areas as rocks and minerals, natural disasters, changing landscapes, celestial motion, weather, and water resources. This course meets six periods per week. The course concludes with the NYS Physical Setting/Earth Science Regents exam.

0311H PHYSICAL SETTING: EARTH SCIENCE H
PREREQUISITES: ALGEBRA I or ALGEBRA I CONCURRENT AND TEACHER RECOMMENDATION
GRADES 9-12 • FULL YEAR - 1 UNIT

This class will cover all aspects of Regents Earth Science and studies topics more in depth. In addition, the students will complete: independent projects, enriched labs, independent research, presentations, problem solving labs, field work, and higher level reading and analyzing of documents and data. This course meets six periods per week. The course concludes with the NYS Physical Setting/Earth Science Regents exam. Students should possess strong organizational and communication skills as well as have an 89 or above average in previous science and math courses.
0321 LIVING ENVIRONMENT: BIOLOGY R
PREREQUISITE: GRADE 9: EARTH SCIENCE AND ALGEBRA I or ALGEBRA I CONCURRENT
GRADES 10-12: PHYSICAL SETTING: EARTH SCIENCE
GRADES 9-12 • FULL YEAR - 1 UNIT
This course will provide students with an awareness of the natural world and a basic understanding of biological processes. Investigations include problem-solving skills, the collection and analysis of data, and selected dissections. It is designed to provide a survey of topics including ecology, biochemistry, human physiology, reproduction and development, plants, genetics and evolution. This course meets six periods per week. The course concludes with the NYS Living Environment Regents exam.

0321H LIVING ENVIRONMENT: BIOLOGY HONORS
PREREQUISITE: GRADE 9: REGENTS EARTH SCIENCE and ALGEBRA I or ALGEBRA I CONCURRENT
GRADES 10-12: PHYSICAL SETTING: EARTH SCIENCE and GEOMETRY COMMON CORE
GRADES 9-12 • FULL YEAR - 1 UNIT
This class will cover all aspects of Regents Biology. This curriculum will provide more in depth-study of current topics and additional topics not presented in the Regents Biology Curriculum. This course is designed for highly motivated students with an interest in a postsecondary education science major and/or a professional career related to the life sciences. Students should possess strong organizational and communication skills as well as have an 89 or above average in previous science and math courses. This course meets six times a week. The course concludes with the NYS Living Environment Regents exam.

0331 PHYSICAL SETTING: CHEMISTRY R
PREREQUISITE: TWO UNITS OF REGENTS SCIENCE and ALGEBRA I
GRADES 10-12 • FULL YEAR - 1 UNIT
This course is designed primarily for college bound students who have demonstrated high ability, motivation and interest toward science and mathematics. Emphasis is placed on the mathematics and the theory of chemistry. Topics include atomic structure, bonding, periodic table, kinetics, equilibrium, acids, bases, redox, electrochemistry, organic chemistry and nuclear chemistry. The course meets six periods per week. The course concludes with the NYS Physical Setting/Chemistry Regents exam.

0331H PHYSICAL SETTING: CHEMISTRY H
PREREQUISITE: TWO UNITS OF REGENTS SCIENCE and ALGEBRA I
GRADES 9-12 • FULL YEAR - 1 UNIT
This class will cover all aspects of Regents Chemistry and will provide more in depth-study of theoretical and mathematical concepts not presented in Regents Chemistry. The course is designed for highly motivated students with an interest in a postsecondary education science major and a professional career related to physical science. Students should possess strong organizational and study skills as well as have an 89 or above average in previous science and math courses. This course will cover extended topics in atomic structure, bonding, kinetics, redox, organic and nuclear chemistry. This course meets six times a week. The course concludes with the NYS Physical Setting/Chemistry Regents exam.

0332 CHEMISTRY G
PREREQUISITE: TWO UNITS OF REGENTS SCIENCE AND ALGEBRA I or TEACHER RECOMMENDATION
GRADES 11-12 • FULL YEAR - 1 UNIT
This course is designed for average junior and senior students, who, though not planning a career in science, desire a high school chemistry course. Objectives are to develop an appreciation of scientific methods and a familiarity with basic scientific facts and principles. The topics are similar to those in Regents Chemistry. However, there is an emphasis on the application of Chemistry to everyday life. The teacher may require an independent study or research project. Students should be familiar with the use of equations to solve problems. The class meets five periods per week.
0343 PHYSICS G
PREREQUISITE: ALGEBRA I AND GEOMETRY COMMON CORE or TEACHER RECOMMENDATION
GRADES 11-12 • FULL YEAR - 1 UNIT

This course is offered for the student who wishes to learn more about the scientific aspects of the physical world in a more practical, less theoretical way than Regents Physics. Most of the student’s understandings develop from laboratory experiences and should help the student to gain an appreciation for the scientific method, increase a willingness to change beliefs after carefully weighing new evidence, and provide an opportunity to develop critical thinking. Emphasis is on the Physics of everyday events and applications, the practical understanding of Physics. This course meets five periods per week.

0341 PHYSICAL SETTING: PHYSICS R
PREREQUISITE: TWO UNITS OF REGENTS SCIENCE CONCURRENT ALGEBRA II COMMON CORE
GRADES 11-12 • FULL YEAR - 1 UNIT

The course presents a modern view of Physics with major emphasis on the fundamental concepts underlying this science. The course is designed for students with above average ability in both science and math. Topics include mechanics, waves, electricity, heat, light, sound and atomic and nuclear physics. A large part of the course relies on laboratory activities and individual initiative. Extensive use is made of computers – no programming experience is needed. The course concludes with the NYS Physical Setting/Physics Regents exam.

0342 PHYSICAL SETTING: PHYSICS H
PREREQUISITE: TWO UNITS OF REGENTS SCIENCE CONCURRENT ALGEBRA II COMMON CORE or TEACHER RECOMMENDATION
GRADES 11-12 • FULL YEAR - 1 UNIT

This course should be considered by students who wish to pursue careers in engineering, math, physics related fields, and is strongly recommended for students considering AP Physics C. This course presents a modern view of Physics with major emphasis on the fundamental concepts underlying this science. Topics include mechanics, waves, electricity, magnetism and atomic and nuclear physics. Extensive use is made of computers – no programming experience is needed. This course meets six periods a week. The course concludes with the NYS Physical Setting/Physics Regents exam. Students will have the option of writing the “B” level Advanced Placement exam. Students should possess above final average ability in math and science and have at least maintained an 89 or above average in both areas.

0351 ADVANCED PLACEMENT BIOLOGY
PREREQUISITE: 3 UNITS OF REGENTS LEVEL SCIENCE (INCLUDING REGENTS BIOLOGY and CHEMISTRY)
GRADES 11-12 • FULL YEAR - 1 UNIT • 7 Periods/Week

The emphasis of this course is on inquiry-based learning of essential concepts. Students are provided the opportunity to develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. The major themes that recur throughout the course are: The process of evolution drives the diversity and unity of life; Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis; Living systems store, retrieve, transmit and respond to information essential to life process; Biological systems interact, and these systems and their interactions possess complex properties. The course concludes with a nationally administered examination approved by the College Entrance Board and all other assignments through the end of the PCSD school year. Many colleges award advanced placement status, credit, or both on the basis of the examination results.
0352 ADVANCED PLACEMENT CHEMISTRY
PREREQUISITE: 3 UNITS OF REGENTS LEVEL SCIENCE
GRADES 11-12 • FULL YEAR - 1 UNIT • 7 Periods/Week

The AP Chemistry course is organized around six "big ideas" in chemistry, which serve to structure the course. The emphasis of this course is on inquiry-based learning of essential concepts surrounding these six big ideas. The course supports student achievement through multiple opportunities to test, evaluate, and refine explanations and predictions of natural phenomena. Students will focus on the following science practices: generating representations and models, developing strategies for collecting data, and making connections across scales, concepts, and domains. The course supports students in mastering the quantitative aspects of chemistry, by enhancing their qualitative understanding and visualization of the particulate nature of matter. The course concludes with the Advanced Placement College Board exam, and all other assignments through the end of the PCSD school year. Many colleges award advanced placement status, credit, or both on the basis of the examination results.

0355 ADVANCED PLACEMENT PHYSICS C
PREREQUISITE: 3 UNITS OF REGENTS LEVEL SCIENCE (INCLUDING REGENTS LEVEL PHYSICS) AND AP CALCULUS CONCURRENT
GRADES 11-12 • FULL YEAR - 1 UNIT • 7 Periods/Week

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. The “C” program is more demanding mathematically and may result in college credit for the potential Physics major. 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 PCSD school year. Many colleges award advanced placement status, credit, or both on the basis of the examination results.

0353 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE
PREREQUISITE: 3 UNITS OF REGENTS LEVEL SCIENCE
GRADES 11-12 • FULL YEAR - 1 UNIT

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study. Yet there are several major unifying constructs, or themes, that cut across the many topics included in the study of environmental science. The course concludes with the Advanced Placement College Board exam, and all other assignments through the end of the PCSD school year. Many colleges award advanced placement status, credit, or both on the basis of the examination results.

SCIENCE ELECTIVES

0780 COMPUTER SCIENCE PRINCIPLES (formerly titled Computer Science and Software Engineering)
PREREQUISITE: ONE UNIT OF REGENTS SCIENCE AND ALGEBRA I AND GEOMETRY
GRADES 11-12 • FULL YEAR - 1 UNIT

This course is designed to introduce students to the world of programming. Students create apps for mobile devices, automate tasks in a variety of languages, find patterns in data, and interpret simulations.
Students work in teams to develop computational thinking, solve problems and utilize computational tools that foster creativity. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems allow for various levels of entry whether students are novice or developing program writers. Each unit focuses on one or more computationally intensive career paths. The course invites students to consider the societal impact of computing, both present and future. *Students participating in this course will have the option of taking the AP Computer Science Principles Exam.*

**0340 CRIMINALISTICS**

**PREREQUISITE:** LIVING ENVIRONMENT: BIOLOGY R, PHYSICAL SETTING: CHEMISTRY R, PHYSICAL SETTING: EARTH SCIENCE R  
**GRADES 11-12 • SEMESTER - ½ UNIT**

Criminalistics will introduce students to the role of forensic science in criminal investigations. In order to merge theory with practice, a hands-on approach will be taken in the presentation of course materials and laboratories. The major topics of study may include: physical properties of evidence, hair, fiber, and paint analysis; fingerprints, tool marks and other impressions; forensic serology and DNA.

**0327 ANIMAL AND HUMAN BEHAVIOR**

**PREREQUISITE:** LIVING ENVIRONMENT: BIOLOGY R or H  
**GRADES 10-12 • SEMESTER - ½ UNIT**

This course investigates and observes the responses to change in an animal’s internal and external environment. The course focuses only on animals and examines how the process of evolution has resulted in the variety of animal life on earth. We will also see patterns emerge from the simplest to the most complex animals and see the interconnectedness of different animal species with each other. This course will include many hands-on activities, projects and presentations. The major topics of study may include: instinct vs. learned behaviors, adaptations, social behaviors, animal communication, aggression, courtship, parenting, and play behaviors.

**0344 HUMAN ANATOMY AND PHYSIOLOGY I (FALL)**

**PREREQUISITE:** LIVING ENVIRONMENT: BIOLOGY R or H  
**GRADES 10-12 • FALL SEMESTER - ½ UNIT**

This course examines the structure and function of the human body and mechanisms for maintaining homeostasis within the body. It includes the study of basic chemistry, cells, tissues, and the integumentary, skeletal, muscular, nervous, and endocrine systems. Activities include microscope work, case studies and dissection. It is intended as a survey course for students who are interested in pursuing careers in medicine or allied health fields.

**0345 HUMAN ANATOMY AND PHYSIOLOGY II (SPRING)**

**PREREQUISITE:** LIVING ENVIRONMENT: BIOLOGY R or H and HUMAN ANATOMY AND PHYSIOLOGY I  
**GRADES 10-12 • SPRING SEMESTER - ½ UNIT**

This course is a continuation of Human Anatomy and Physiology I. The cardiovascular, lymphatic, digestive, respiratory, urinary, and reproductive systems, as well as the concepts of immunity and development are included. Activities include microscope work, case studies and dissection. It is geared toward students who are interested in pursuing careers in medicine or allied health fields.
0347 ASTRONOMY
Blended Learning Course
PREREQUISITE: PHYSICAL SETTING: EARTH SCIENCE R or H
GRADES 10-12 • SEMESTER -½ UNIT
This is a semester long descriptive course for the science student with an interest in Astronomy. The course begins with a look at the Universe and our place in it, followed by a study of light and telescopes. The remaining topics include: relativity, cosmology, the study of the possibility of life elsewhere in the universe, galaxies, star life cycles and planetology. It concludes with a discussion of Interplanetary and Interstellar space travel. This course is taught as a blended learning course, using an online learning management system. The class meets 4 periods in a 5 period week. In lieu of the 5th class meeting students are required to complete night observation work as assigned by the teacher.

0348 OCEANOGRAPHY
PREREQUISITE: PHYSICAL SETTING: EARTH SCIENCE R or H AND LIVING ENVIRONMENT: BIOLOGY R or H PRIOR TO OR CONCURRENT
GRADES 10-12 SEMESTER - ½ UNIT
A semester long descriptive course designed for the science student with an interest in Oceanography. The course begins with a study of the history and development of Oceanography. Physical, chemical and geological aspects are explored. The course finishes with a study of Marine Biology. We spend a day on Seneca Lake doing oceanographic research.

SCIENCE ELECTIVES - MENDON HIGH SCHOOL ONLY

0324 MICROBIOLOGY
PREREQUISITE: LIVING ENVIRONMENT: BIOLOGY R or H
GRADES 10-12 • SEMESTER - ½ UNIT
[MHS: OFFERED IN 2019-2020 AND 2021-2022]
Microbiology is a course designed for students who wish to develop an appreciation for the beneficial and harmful impact of microorganisms in our environment. The life cycles and infectious mechanisms of viruses, protozoa, bacteria and parasitic worms will be investigated with emphasis on the organisms which are making headlines today such as Anthrax, Meningitis and AIDS. Students will practice lab techniques unique to the study of microorganisms, including sterile culture techniques, media preparation, staining techniques and oil immersion microscopy.

0325 GENETICS
PREREQUISITE: LIVING ENVIRONMENT: BIOLOGY R or H
GRADES 10-12 • SEMESTER - ½ UNIT
[MHS: OFFERED IN 2018-2019 AND 2020-2021]
This course explores the present state of genetics in the 21st century. Traditional inheritance mechanisms will be studied within the framework of a few common genetic disorders. Students will explore how recent advances in genetic technology have altered our experiences with these disorders from diagnosis and testing to treatment. In addition, students will investigate the many applications of genetic engineering currently in use such as genetically modified food and genetically engineered hormones. The semester concludes with an overview of recent advances in reproductive genetic technology such as cloning and stem cell therapy.
## SOCIAL STUDIES COURSES AND SEQUENCE

### REGENTS SEQUENCE:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Course</th>
<th>Required</th>
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<tbody>
<tr>
<td>NINTH GRADE</td>
<td>Global History and Geography 9R</td>
<td>(Required)</td>
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<tr>
<td>TENTH GRADE</td>
<td>Global History and Geography 10R or AP World History</td>
<td>(Required)</td>
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<tr>
<td>ELEVENTH GRADE</td>
<td>U.S. History and Government 11R or AP U.S. History</td>
<td>(Required)</td>
</tr>
<tr>
<td>TWELFTH GRADE</td>
<td>Economic Issues 12R or Economic Issues I or AP Economics and Participation in Government or AP Government and Politics</td>
<td>(Required)</td>
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### ELECTIVES

- AP U.S. History
- AP Economics
- AP World History
- AP European History
- AP Government and Politics
- AP Psychology
- Comparative Religions
- Contemporary Issues
- Criminal Law
- Military History
- Minority Issues
- Sociology and Psychology
- Vietnam: An Historic Perspective
Social Studies Course Descriptions

All students must complete Global History and Geography 9R, Global History and Geography 10R or AP World History, U.S. History and Government 11R or AP US History, and meet a fourth year requirement for Economics (one semester) and Participation in Government (one semester), in order to fulfill New York State graduation requirements. Seniors may take Economic Issues and Participation in Government; unless substituting AP Economics (#0154) or AP Government and Politics (#0153) respectively.

A consultant teacher may be in the Regents level courses to provide additional support to all students.

SOCIAL STUDIES CURRICULUM - REQUIRED COURSES

0111 GLOBAL HISTORY AND GEOGRAPHY 9R
GRADE 9 • FULL YEAR - 1 UNIT
This course will focus on the study of Europe, Africa, South Asia, East Asia, Southeast Asia, the Middle East and Latin America. Each area will be studied up to 1750, and will be developed around the geographic/historic setting, the dynamics of change, contemporary nations and cultures, economic development, and its place within a global context. This is a one year course.

0121 GLOBAL HISTORY AND GEOGRAPHY 10R
GRADE 10 • FULL YEAR - 1 UNIT
This course will focus on the study of Europe, Africa, South Asia, East Asia, Southeast Asia, the Middle East and Latin America. Each area will be studied from 1750 to the present, and will be developed around the geographic/historic setting, the dynamics of change, contemporary nations and cultures, economic development, and its place within a global context. The course concludes with the NYS Global History and Geography Regents exam.

0131 U.S. HISTORY AND GOVERNMENT 11R
GRADE 11 • FULL YEAR - 1 UNIT
This course consists of an in-depth study of the Constitution and American Government followed by a brief study of early American events. It continues with a study of the post-Civil War United States (circa 1865 - present) with a major emphasis on the Industrial and Post-Industrial society of today. The course concludes with the NYS U.S. History and Government Regents exam.

0141 PARTICIPATION IN GOVERNMENT 12R
GRADE 12 • SEMESTER - ½ UNIT
This course consists of an examination of the attitudes, policies, and processes that shape contemporary American public policy. Students will work toward acquiring legal consciousness and analysis skills necessary for effective participation in and development of a more democratic society. Students will be responsible for completing a community service component and attend a government meeting.

0142 ECONOMIC ISSUES 12R
GRADE 12 • SEMESTER - ½ UNIT
This course consists of an in-depth study of the foundational principles of economics. It also examines the general principles of microeconomics and macroeconomics focusing on the U.S. economic system.
This core course consists of the same survey of topics referenced in Economic Issues 12R with an emphasis on skills improvement, including basic study skills. Students recommended for this course will benefit from improved skills to strengthen their ability of achieving Regents' level competencies.

SOCIAL STUDIES CURRICULUM - ELECTIVES

0150 ADVANCED PLACEMENT WORLD HISTORY
PREREQUISITE: TEACHER RECOMMENDATION, A minimum of a 90% in previous SOCIAL STUDIES course AND STRONG WRITING SKILLS
GRADES 10-12 ♦ FULL YEAR - 1 UNIT

The AP World History course focuses on developing students' understanding of world history from approximately 1200 to the present. The course has students investigate the content of world history for significant events, individuals, developments, and processes in four historical periods. The course also provides a look at the connections among historical developments in different times and places encompassing the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania. The students get the opportunity to participate in debates, defend/refute controversial historical positions and role play individuals and empires. The course prepares students for the National Advanced Placement Examination in May. Many colleges award advanced placement, credit, or both, on the basis of these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

All students who wish to participate in this course are given a recommended summer reading list. Selected content from the recommended readings will be assessed during the first quarter of the academic year.

0151 ADVANCED PLACEMENT U.S. HISTORY
PREREQUISITE: TEACHER RECOMMENDATION, SOCIAL STUDIES AVERAGE IN THE A RANGE AND STRONG WRITING SKILLS
GRADES 11-12 ♦ FULL YEAR - 1 UNIT

This course consists of a survey of American History from the Pre-colonial Period to present day. American history is studied through extensive chronological coverage and readings on a broad variety of topics in special historical fields including economic, cultural and intellectual, social, political-constitutional, and diplomatic. This will be accomplished through a variety of student-centered methods which might include debates, press conferences, discussions, research, and reading. The course prepares students for the National Advanced Placement Examination in May. Many colleges award advanced placement, credit, or both, on the basis of these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

All students who wish to participate in this course are given a recommended summer reading list. Selected content from the recommended readings will be assessed during the first quarter of the academic year.
0152 ADVANCED PLACEMENT EUROPEAN HISTORY
PREREQUISITE applies only to 10\textsuperscript{TH} GRADE STUDENTS: TEACHER RECOMMENDATION, A MINIMUM OF A 90\% IN PREVIOUS SOCIAL STUDIES COURSE AND STRONG WRITING SKILLS.
THIS COURSE MAY NOT BE TAKEN CONCURRENTLY WITH AP WORLD HISTORY IN 10\textsuperscript{TH} GRADE.
GRADES 10-12 • FULL YEAR - 1 UNIT

This college level course consists of a chronological survey of modern European History from the Renaissance (circa 1400) to the present in four historical periods. The students get to participate in debates, defend/refute controversial historical positions, and role play historical figures and empires. The course prepares students for the National Advanced Placement Examination in May. Many colleges award advanced placement, credit, or both, on the basis of these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

\textit{All students who wish to participate in this course are given a recommended summer reading list. Selected content from the recommended readings will be assessed during the first quarter of the academic year.}

0153 ADVANCED PLACEMENT GOVERNMENT AND POLITICS
U.S. AND COMPARATIVE
PREREQUISITE: PREVIOUS SOCIAL STUDIES INTEREST AND ABILITY, STRONG WRITING SKILLS
GRADE 12 • FULL YEAR - 1 UNIT

This Political Science course has two components, which study the government and politics of the United States and six other nations- United Kingdom, Russia, China, Iran, Mexico and Nigeria. United States government and politics is concerned with the nature of the American political system, its development over the past two hundred years, and how it works today. Comparative Government is an introduction to various political systems in our contemporary world, which will familiarize students with the most important methods, concepts and theories in the field of comparative politics. Our studies will examine through the lens of six diverse case studies of political systems, institutions and the role of the citizen in each state. This class will allow students to have a deeper understanding of not only the United States Government and political system but the six other countries studied in Comparative Government, making students more informed citizens. This course prepares students for two National Advanced Placement Examinations in May – one in United States Government and one in Comparative Government. Many colleges award advanced placement, credit, or both, on the basis of these examination results. High school credit will be awarded upon the completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

0154 ADVANCED PLACEMENT ECONOMICS
MACROECONOMICS AND MICROECONOMICS
GRADE 11-12 • FULL YEAR - 1 UNIT

This introductory college level course is divided into two elements – Microeconomics and Macroeconomics. Microeconomics gives students an understanding of the principles of economics that apply to the decisions of consumers and businesses in the larger economic system. Primary emphasis is placed on the role of markets and how individuals, firms, and government promote profits, efficiency, and equity in the economy. Macroeconomics gives students a thorough understanding of the principles that apply to an economic system as a whole. Primary emphasis is placed on the study of national income, economic performance measures, economic growth, and the international trade.

This course prepares students to take two National Advanced Placement Examinations in May – one in Microeconomics and one in Macroeconomics. Many colleges award advanced placement, credit, or both, on the basis of these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.
0155 ADVANCED PLACEMENT PSYCHOLOGY  
GRADE 11-12* • FULL YEAR - 1 UNIT  
This course is an introductory survey of the major concepts in the scientific study of human behavior, human development, motivation, learning personality, and social behavior. Emphasis is placed on understanding, integrating and applying theoretical and methodological issues to the study of psychology. The course prepares students for the Advanced Placement examination in May. Many colleges award advanced placement, credit, or both, based on these examination results. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year.

0156 COMPARATIVE RELIGIONS  
GRADES 11-12 • SEMESTER - ½ UNIT  
[MHS AND SHS OFFERED IN 2020-2021 AND 2022-2023]  
This course addresses the essential elements of the world’s major religions including Hinduism, Buddhism, Judaism, Christianity and Islam along with other faiths. We will discuss the impact of contemporary issues on religions, as well as analyze the similarities and differences among the faiths, and gain a better understanding of how people live their faith. Primary readings, discussions, films, student research, guest speakers, and/or field trips will be utilized to enhance student understandings of these topics. Students who enroll in this class are eligible to receive three (3) hours of college credit through Nazareth College.

0144 VIETNAM: AN HISTORIC PERSPECTIVE  
GRADES 10-12* • SEMESTER - ½ UNIT  
[MHS AND SHS OFFERED IN 2019-2020 AND 2021-2022]  
This course is designed to create a better understanding of the many forces and factors surrounding the United States’ involvement in this divisive war. A variety of print and media including documentary films, Hollywood films, and popular music of the era will be used to illustrate these issues and serve as a catalyst for discussion.

0145 CONTEMPORARY ISSUES  
GRADES 11-12* • SEMESTER - ½ UNIT  
This course is designed to provide students with an in-depth look at national and international contemporary issues. It will provide students with the opportunity to take content from the required history courses and apply it to real-world scenarios. Topics to be studied may include: global and national issues in the 21st century, population and food production, the global environment and utilization of national resources, national and local politics, and global conflicts.

0146 MILITARY HISTORY  
GRADES 9-12* • SEMESTER - ½ UNIT  
This course explores warfare through the ages from Ancient Greece and Rome up to the global clashes of WWI and WWII in the 20th century. A special emphasis is placed on the impacts of key generals, conquerors, weapons, technologies, armor, tactics and military strategies on the course of human history. In class, you will explore the workings and features of the Greek phalanx, the Roman legion and the Medieval castle. This elective is meant to build on and/or better prepare students for other general history courses by digging into the details of famous historical conflicts. Over the span of Military History’s 15+ BattleSim games, where you take on the role of general, can you change the course of history?
0147 MINORITY ISSUES
GRADES 11-12* ♦ SEMESTER - ½ UNIT
[MHS AND SHS OFFERED IN 2019-2020 AND 2021-2022]
A discussion format will be employed to investigate the issues of discrimination by race, gender, or religion. Topics to be addressed include immigration issues, racial minorities, and cultural minorities. Students are encouraged to take part in the conversation. They will also take part in many student-centered activities including research, debates, and presentations.

0148 SOCIOLOGY AND PSYCHOLOGY
GRADE 10-12* ♦ SEMESTER - ½ UNIT
A discussion format will be employed to introduce sociology and psychology basics, origins and underlying principles. Sociology will address the concepts of how individuals and groups make decisions. Psychology will focus on individual behaviors and the effect these behaviors may have on society.

0149 CRIMINAL LAW
GRADES 10-12* ♦ SEMESTER - ½ UNIT
This course provides students with an overall view of the criminal legal system in the United States and New York State. Topics will include crimes and defenses, criminal procedure and the jury system. Local cases and issues will be explored as well. Activities may include debates on legal issues, a mock trial, presentations by guest speakers and a field trip to the Monroe County Hall of Justice.

* Seniors are given preference in case of overload.
TECHNOLOGY EDUCATION COURSES AND SEQUENCE

Technology classes offer insight into the careers, education, technical skills, problem solving, designing, materials, tools, and products of our future. The purpose of technology education is to provide an exploration of career opportunities available in the technical world we live in. Technology Education also fosters an attitude in students that will assist them in attaining their goals as citizens in our technological society.

Project Lead the Way
The district has incorporated the engineering curriculum into the Technology Education Program. This program starts at the middle school level with an introduction to engineering and continues to more in-depth studies at the high school level. The courses are specifically designed to prepare students for further education and careers in engineering.

*Design and Drawing for Production (DDP) fulfills the Fine Arts requirement*

The Regents Action Plan permits students to satisfy the high school art/music graduation requirement by substituting the Design and Drawing for Production course for the Studio Art course. Students interested in selecting this alternative may speak with their counselor.

TECHNOLOGY EDUCATION – 3 unit Regents sequence

Requirement: 3 units total (each ½ year = ½ unit)
Must include 1 unit of Foundation courses.

Foundation Courses
- Design and Drawing for Production (PLTW) (1 Unit)
- Principles of Engineering (PLTW) (1 Unit)
- Transportation Systems (½ Unit)
- Communication Systems (½ Unit)
- Construction Systems (½ Unit)
- Production Systems (½ Unit)

The remaining 2 Units can be from ANY of the foundation or elective courses.

Elective Courses
- Digital Electronics (PLTW) (1 Unit)
- Computer Integrated Manufacturing (PLTW) (1 Unit)
- Engineering Design and Development (PLTW) (1 Unit)
- Computer Science Principles (PTLW) (1 Unit)
- Civil Engineering and Architecture (1 Unit)
- Computer Aided Drawing (½ Unit)
- Photography (½ Unit)
- Manufacturing Systems (½ Unit)
- Automotive I (½ Unit)
- Automotive II (½ Unit)
- Automotive III (½ Unit)
- Introduction to Game Development (½ Unit)
TECHNOLOGY EDUCATION – 5 unit Regents sequence

*Increasing to a 5-unit sequence can fulfill the World Language Requirement*

Requirement: 5 units total (each ½ year = ½ unit)

Example:
- Design Drawing for Production (1 Unit)
- Principles of Engineering (1 Unit)
- Automotive I (½ Unit)
- Production Systems (½ Unit)
- Computer Integrated Manufacturing (1 Unit)
- Computer Science Principles (1 Unit)

Must include 2 units of Foundation courses.

Foundation Courses

- Design and Drawing for Production (PLTW) (1 Unit)
- Principles of Engineering (PLTW) (1 Unit)
- Transportation Systems (½ Unit)
- Communication Systems (½ Unit)
- Construction Systems (½ Unit)
- Production Systems (½ Unit)

The remaining 3 units can be from ANY of the foundation or elective courses

Elective Courses

- Civil Engineering and Architecture (1 Unit)
- Computer Integrated Manufacturing (PLTW) (1 Unit)
- Computer Science Principles (PTLW) (1 Unit)
- Digital Electronics (PLTW) (1 Unit)
- Engineering Design and Development (PLTW) (1 Unit)

- Automotive I (½ Unit)
- Automotive II (½ Unit)
- Automotive III (½ Unit)
- Computer Aided Drawing (½ Unit)
- Introduction to Game Development (½ Unit)
- Photography (½ Unit)
- Manufacturing Systems (½ Unit)
## TECHNOLOGY EDUCATION COURSES AND DIFFICULTY LEVELS

### SUTHERLAND HIGH SCHOOL

<table>
<thead>
<tr>
<th>LEVEL 1 (BASIC)</th>
<th>LEVEL 2 (ADVANCED)</th>
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<td></td>
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*Automotive Courses are offered to Sutherland students but are conducted at Mendon High School*

### MENDON HIGH SCHOOL

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COLLEGE CREDIT OPPORTUNITIES

Pittsford Central Schools’ technology teachers are certified to teach the following courses for college credit from RIT. The process is very similar to the Advanced Placement courses administered in the core areas. Students pay $225 tuition to RIT and they receive credit from both Pittsford and RIT.

<table>
<thead>
<tr>
<th>Class</th>
<th>RIT</th>
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<tbody>
<tr>
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Technology Education Course Descriptions

0711 DESIGN & DRAWING FOR PRODUCTIONS (DDP)
GRADES 9-12 • FULL YEAR - 1 UNIT (PLTW Basic Course)

Design & Drawing for Production is a blend of technical drawing, and computer aided design & drawing (CADD) all rolled into one course. Students will learn how to solve real world problems presented in the class by using their knowledge, communication, and computer drawing skills that they will be developed during the course of a year. Students will brainstorm new solutions, quickly design their ideas on paper, and then mock up their designs using Autodesk Inventor 3D software. Students will be given opportunities to build prototypes and test working models of their problem-solving techniques. Students practice working in groups and as individuals on problem solving projects. They may give presentations to the class on their findings and designs. Students will then be given an opportunity to evaluate themselves at the end of these activities. Activities may include designing, building and testing a Puzzle Cube or an Automata. Students will be using the laser engraver to make plaques, key chains and snowflakes. Students will also be using several different 3D printers to make parts they have designed. When the students are done with these activities, they get to take their projects home and keep them!
This course is a project-based curriculum.

0742 DIGITAL ELECTRONICS
GRADES 9-12 • FULL YEAR - 1 UNIT (PLTW Basic Course)
[SHS: OFFERED IN 2018-19 AND 2020-21 MHS: OFFERED IN 2017-18 AND 2019-20]

Digital electronics is a full year class that is geared to those students who enjoy hands on learning. Digital Electronics is a course of study in how to design, build and test Digital Circuits. This course is patterned after the first semester course in Digital Electronics taught at two and four year colleges. Students will study the application of electronic logic circuits (which are found in watches, calculators, video games, and thousands of other devices), and apply Boolean logic to the solutions of problems. The use of smart circuits is abundant in industry today. Its use is rapidly increasing, making Digital Electronics an important course of study for a student exploring a career in engineering/engineering technology. Students will learn how to simulate a circuit design on the computer using the latest software called Multisim. Students will get out the electronic components they need, plug them into a digital trainer (PGA bread board), to test simple and complex real live digital circuits. Students will also learn how to soldier these components to a printed circuit board and take their projects home to keep.
0723 COMPUTER AIDED DRAWING (CAD)

GRADES 10-12 • SEMESTER - ½ UNIT

This course makes extensive use of computer CAD software as both a design and a drawing tool. Students increase proficiency in problem solving skills and develop sophisticated assembly drawings. This course also allows the student to enhance their creative ability through the design of new and innovative product ideas. Students will use the laser engraver and 3D printer to physically build their designs.

0721 CIVIL ENGINEERING AND ARCHITECTURE (CEA)

GRADES 10-12 • FULL YEAR - 1 UNIT

This course is designed to provide students with a solid background in Architectural Design and an introduction to Civil Engineering. Students complete individual as well as group design activities. The students learn to use design problem solving techniques to draw complete plans for their designs. These plans include site plans, floor plans, elevations, detail drawings, electrical and plumbing plans, and structural calculations for residential and small commercial projects. Computer Aided Drawing skills as well as presentation skills will develop through the presentation of projects to the class. Computers will be used to complete the drawing projects. Students will explore, on an introductory level, the many skills used in civil engineering. These range from surveying to soil testing and structural design activities.

0731 PRINCIPLES OF ENGINEERING

PREREQUISITE: DDP

GRADES 10-12 • FULL YEAR - 1 UNIT (PLTW Advanced Course)

This course is an innovative, hands-on, laboratory-based set of engineering activities that convey the concepts, principles, skills, activities, and attitudes needed to be successful in the field of engineering. This course will provide direct application of math, science and technology concepts to real world design problems. Students will complete a variety of activities (both hands-on and research based) to further develop their skills in modeling, systems, optimization, technology/society interaction, design, ethics, and basic engineering activities. Engineering activities include: earthquake resistant building, robotics, electricity/electronics, fluid mechanics, trajectory, simple and compound machines, and green energy. This course is a highly project-based curriculum.

0743 COMPUTER INTEGRATED MANUFACTURING (CIM)

PREREQUISITE: DDP

GRADES 10-12 • FULL YEAR - 1 UNIT (PLTW Advanced Course)

CIM applies principles of programming, rapid prototyping, robotics, and automation. This course builds upon the computer solid modeling skills developed in Design and Drawing for Production. Students will use 3D printers, CNC milling machines, and laser cutters to construct physical models of their three-dimensional designs. This class will also introduce the fundamentals of programming and robotics and how they are used in automated manufacturing. Students will learn to program a robotic arm to perform various tasks, including interaction with other machines. This course is a highly project-based curriculum.

0733 ENGINEERING DESIGN AND DEVELOPMENT (EDD)

PREREQUISITE: DDP, POE

GRADES 11-12 • FULL YEAR - 1 UNIT (PLTW Advanced Course)

EDD is an engineering development course in which students work individually and collaboratively to research, design and construct solutions to engineering problems. Students apply principles developed in the preceding PLTW courses and are guided by an instructor/mentor. The majority of the course will consist of large scale, long term, team-based challenges. They will present progress reports, create multimedia presentations and evaluate their designs in real-world actual testing. As the designs progress,
students will improve their communication skills as they become adept at collaborating with each other as well as professionals in the discipline of their design. This course is a highly project-based curriculum.

0780 COMPUTER SCIENCE PRINCIPLES
PREREQUISITE: ONE UNIT OF REGENTS SCIENCE AND ALGEBRA I AND GEOMETRY
GRADES 11-12 • FULL YEAR - 1 UNIT (PLTW Course)
This course is designed to introduce students to the world of programming. Students create apps for mobile devices, automate tasks in a variety of languages, find patterns in data, and interpret simulations. Students work in teams to develop computational thinking, solve problems and utilize computational tools that foster creativity. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills. Problems allow for various levels of entry whether students are novice or developing program writers. Each unit focuses on one or more computationally intensive career paths. The course invites students to consider the societal impact of computing, both present and future. Students participating in this course will have the option of taking the AP Computer Science Principles Exam.

0712 PRODUCTION SYSTEMS (Wood I)
GRADES 9-12 • SEMESTER - ½ UNIT
Production Systems is a basic woodworking course that is 80% hands on learning. Students will learn how to safely use the woodworking tools, machines, and equipment available in the wood lab. Students will safely use the miter saw, router table, table saws and much more. This course is designed to teach the fundamentals of materials processing (taking rough cut wood and making it into usable items.) Students learn the proper construction process: gluing, sanding, and finishing wooden projects. Students learn how to make cutting boards, picture frames, keepsake boxes, wooden wine racks and more.

0722 MANUFACTURING SYSTEMS (Wood II)
PREREQUISITE: PRODUCTION SYSTEMS
GRADES 9-12 • SEMESTER - ½ UNIT
[ MHS AND SHS: OFFERED IN 2018-2019 AND 2020-2021]
Manufacturing Systems is the advanced woodworking course that is 80% hands on learning. Students must take production systems (Basic Wood I) before they sign up for this class. This course is designed to teach the more advanced fundamentals of materials processing (taking rough cut wood, and making it into usable items.) In this course, students are exposed to several manufacturing techniques and processes. Students learn how to design, develop, estimate cost, and mass-produce a product. Students learn the proper construction process: gluing, sanding, and finishing the wooden projects. Students also learn how to make more advanced woodworking projects such as; a mission style desktop lamp, poker/game tables, large cutting boards, trophy shelves, wall shelves, book shelves, jewelry boxes, and more. This course is a project-based curriculum.

0732 CONSTRUCTION SYSTEMS
GRADES 9-12 • SEMESTER - ½ UNIT
[ MHS AND SHS: OFFERED IN 2017-2018 AND 2019-2020]
This course is based on the systems approach to building construction. Students will learn the various processes used to build a structure both on-site and prefabricated. Students will complete activities such as wall construction, modular construction, and cost estimation. Students will also have activities in each of the different types of utilities within a buildings construction such as plumbing, electrical, HVAC and drywall. Students will be building units for each one of these utilities. Students will also be investigating and building projects in the new field of green energy. This course also includes rough and finish carpentry methods and techniques. This course is a project-based curriculum.
0729 AUTOMOTIVE I
GRADES 11-12 • SEMESTER - ½ UNIT (Conducted at Mendon High School)

Automobile maintenance is a fact of life in today’s society. The increasing complexity of automobiles provides greater challenges to owners and mechanics than ever before. This basic course offers instruction in the theory of four stroke cycle engines, brake systems, cooling systems, tire and wheel care, fuel systems, exhaust systems, lubrication, buffing and waxing, and interior care. Instruction is also provided in engine trouble-shooting and the use of automotive test equipment. Related laboratory activities include seasonal maintenance, minor general repairs, and brake service. It is helpful, but not mandatory, for the student to have access to a car for lab activities.

0736 AUTOMOTIVE II
PREREQUISITE: AUTOMOTIVES I
GRADES 11-12 • SEMESTER - ½ UNIT (Conducted at Mendon High School)

This course is a continuation of Auto Technology I. It is designed for those students who want in-depth understanding of automotive systems and how they are serviced. This course provides students with instructional experiences in diagnosis and trouble-shooting, utilizing various types of testing equipment, buying used cars, and pursuing careers in automotive. Laboratory exercises serve to reinforce and illustrate the basic concepts while providing an opportunity for each student to learn hands-on automotive maintenance and repair. Included in this course is an independent activity of the student’s choice. This activity could involve anything from installing a stereo system in their car to mounting running boards or shock absorbers. It is helpful, but not mandatory, for the student to have access to a car for lab activities.

0746 AUTOMOTIVE III
PREREQUISITE: AUTOMOTIVES I, II
GRADES 11-12 • SEMESTER - ½ UNIT (Conducted at Mendon High School)

This course provides students with the opportunity to build upon skills mastered in Auto I and Auto II. Activities performed are designed for students seeking a career in an automotive related field. Specific activities relate to engine diagnosis/troubleshooting and operation. Students test electrical systems, adjust steering systems and develop skills related to engine operation and function. Included in this course is a mandatory completion of an activity of their choice. This allows students to explore an area of automotive, that they have specific interest in.

0725 COMMUNICATIONS SYSTEMS
GRADES 9-12 • SEMESTER - ½ UNIT

This course introduces students to the world of video, image (make yourself into an Avatar), and audio manipulation/editing. Students will create digital special effects videos as seen in the movies (Star Wars light saber). Students will use cutting edge software for the following:

- Digital Image Manipulation (Adobe Photoshop Professional)
- Sound and Audio Recording and Manipulation (Adobe Audition)
- Video Production (Adobe Premier)
- Special Video Effects (Adobe After Effects)

Students will have a choice in activities used for instruction which include: music videos, digital imagery, producing commercials, music and sound mixing, digital special effects: Star Wars Light Saber Video, stop animations, and the school video morning shows (pre-morning and special events productions) and silk screening. Students will have the opportunity to work with a green screen movie/video production. This course is a project-based curriculum.
0728 TRANSPORTATION SYSTEMS  
GRADES 9-12 ♦ SEMESTER - ½ UNIT

This course delves into the different types of transportation, such as aerospace, watercraft, flight, and land transportation. Activities include model building of each mode of transportation and discussions of their functionality. Students will also look into the new topic of drones and Hovercrafts. Students will design, build and fly a drone or hovercraft in the class using a 3D printer. This course is a project-based curriculum.

0750 INTRODUCTION TO GAME DEVELOPMENT  
GRADES 9-12 ♦ SEMESTER - ½ UNIT

Are you curious about what goes into the design and deployment of the games you play? Introduction to Game Development is a half year course in which students engage in the process of creating their own 2D video games. The introductory course includes units on the history and impact of gaming technologies, planning and layout of levels, character design, and an introduction to the coding of assets within a game. Characters can be created using a variety of different software, which will allow students to develop their own unique games throughout the semester. Participants will be challenged with activities to build their skills in this field, giving them hands on opportunities to test and troubleshoot their very own projects.

0724 PHOTOGRAPHY - BASIC  
This course is offered at MHS only. See Art Dept. PHOTOGRAPHY I for SHS.  
GRADES 9-12 ♦ SEMESTER - ½ UNIT

Basic Photography is an introductory course in which students acquire technical skills and experience in the use of photographic equipment and processes. This photography class is 30% Digital and 70% black & white film. Students will learn how to use both digital and 35 mm film cameras for black and white photos. Students will learn about editing digital photos and developing black and white photos from film. Once they have a background in each, they will fuse the two generations together and develop darkroom photos that originated from digital pictures. Assignments may include making a contact print or proof sheet for each roll of film you develop, dry mounting of print, mat board cutting, picture framing, stop-action photography, available light, flash/no flash, portrait lighting, developing negatives, producing finished enlargements, laser engraving text and images, and developing a picture directly from a mobile device in the dark room. This course will enable students to develop an appreciation for photography as a technical medium, as well as an art form. In the photography lab at PMHS, there are 12 enlargers and an extra-large area for making black and white prints in the darkroom. Students who take this class have unlimited use of these facilities. Equipment will be provided to students if needed.
WORLD LANGUAGES COURSES AND SEQUENCE

STATEMENT OF BELIEFS

The study of languages and cultures gives one a powerful key to entry into the global community. In studying classical and modern languages and cultures, students develop the ability to communicate with others with knowledge, respect, and understanding of their values, history, traditions, and customs. They develop understanding of their own language and culture and comprehend the role and responsibilities of our nation in the interdependent world community. Students of languages other than English reflect on their ways of thinking and on their function as citizens in a multicultural world. They also develop the skills of creative thinking and critical inquiry that make them effective contributing members of a complex society.

WORLD LANGUAGE SEQUENCES

With Level 1 already completed in the middle school, students who complete 2 more units of language will satisfy the requirements for a Regents Diploma with Advanced Designation. Students must successfully complete the level 3 course and the Checkpoint B Exam in order to fulfill the requirement.

A Regents Diploma requires one high school year of World Languages study or equivalent.

Note that more and more colleges are seeking candidates who have continued language study beyond level 3.

SUNY college credit is available for French 5, Spanish 5 and Latin Literature Honors.
French Sequence Beginning in Middle School

6

7

8

French Sequence Beginning in High School

1

2

3 Honors *

4 Honors

AP

3*

4/5

4/5**

1

Level 1 Credit

Level 2 Credit

Level 3 Credit

Level 4 Credit

Level 5 Credit

* Comprehensive final exam aligned to NYS Checkpoint B Standards

** SUNY College credit available
Spanish Sequence Beginning in Middle School

6

7

8

3 Honors *

4 Honors

AP

Spanish Sequence Beginning in High School

1

2

3 *

4

5**

Level 1 Credit

Level 2 Credit

Level 3 Credit

Level 4 Credit

Level 5 Credit

* Comprehensive final exam aligned to NYS Checkpoint B Standards

** SUNY College credit available
WORLD LANGUAGE SEQUENCE - LATIN

Latin Sequence Beginning in Middle School

6

7

8

Latin Sequence Beginning in High School

1

Level 1 Credit

Level 2 Credit

Level 3 Credit

Level 4 Credit

Level 5 Credit

3 *

AP

LATIN LITERATURE HONORS**

* Comprehensive final exam aligned to NYS Checkpoint B Standards

** SUNY College credit available
World Language Course Descriptions

FRENCH

0411 FRENCH 1
PREREQUISITE: NONE
GRADES 9-12 • FULL YEAR - 1 UNIT

This course is offered for those students who have had no previous training in French and for those who need refinement of the basic skills. It is also appropriate for those who wish to begin the study of a second world language. Emphasis is on listening, speaking, reading and writing. Students acquire basic vocabulary including simple idiomatic expressions and learn the basic structure of the French language. The study of the culture of the French-speaking world is an integral part of the course.

0422 FRENCH 2
PREREQUISITE: FRENCH 1 OR 8
GRADES 9-12 • FULL YEAR - 1 UNIT

This course is a continuation of the sequence begun in grade six or French 1 begun at the high school. Students develop new vocabulary within the context of language and culture. Oral proficiency, reading comprehension and accuracy of written expression are skills which are emphasized at this level. Students have the opportunity to actively interact in French as they learn about culture and communication in the target language.

0433 FRENCH 3
PREREQUISITE: FRENCH 2
GRADES 10-12 • FULL YEAR - 1 UNIT

This course emphasizes acquisition of new vocabulary and more advanced idiomatic expressions within the language and culture of Francophone countries. Basic grammatical structure and verb tenses are reviewed, and more complex grammar is introduced. Oral fluency, reading and listening comprehension, and accuracy in written expressions are developed. The course concludes with the Comprehensive Final Exam aligned to NYS Checkpoint B Standards.

0421 FRENCH 3 HONORS
PREREQUISITE: FRENCH 2 AND TEACHER RECOMMENDATION
GRADES 10-12 • FULL YEAR - 1 UNIT

This course begins an accelerated sequence which culminates with the Advanced Placement French Language Examination in the twelfth grade. While some review is incorporated into the course, more attention is given to conversation, vocabulary expansion, grammar, in-depth reading and writing at an advanced level. The course concludes with the Comprehensive Final Exam aligned to NYS Checkpoint B Standards.

0432 FRENCH 4 HONORS
PREREQUISITE: FRENCH 3 HONORS AND TEACHER RECOMMENDATION
GRADES 11-12 • FULL YEAR - 1 UNIT

This advanced course continues an accelerated sequence which culminates with the Advanced Placement Examination in the French Language in the twelfth grade. This course offers in-depth study of previously introduced concepts with emphasis on advanced speaking, listening, reading and writing. French civilization and Francophone cultures are studied through readings, recordings and videos in the target language.
0441 FRENCH 4/5*
PREREQUISITE: FRENCH 3 AND CHECKPOINT B EXAMINATION
GRADERS 11-12 • FULL YEAR - 1 UNIT

This course is a combined fourth and fifth-level high school program. Successful completion of one year of this course fulfills an additional world language sequence. At this level, students continue their advancement of the four language skills: speaking, listening, reading and writing. Special emphasis is placed on the development of conversational skills. Students review the grammar and structure of French and apply it to their daily work in a creative context. This course consists of a series of cultural units, to be selected from the following: current events, culture and society, travel, the culinary arts, art and music, professions, vacations and leisure time and education. Representative readings from both modern and classical French literature are also included. The use of technology enables students to expand and enhance their knowledge of French language and culture.

*French 5: Students enrolled in this course can pay tuition (at a significantly reduced rate) to MCC. Upon successful completion, students will receive credit from both Pittsford and MCC.

0451 ADVANCED PLACEMENT FRENCH LANGUAGE AND CULTURE
PREREQUISITE: FRENCH 4 HONORS AND TEACHER RECOMMENDATION
GRADE 12 • FULL YEAR - 1 UNIT

In this advanced course students will attain proficiency in the areas of listening, speaking, writing, reading and some literary analysis. As candidates for advanced placement in college, students acquire the ability to understand spoken French in connected discourse, to speak with ease and fluency in conversational French and to write persuasively and accurately on a variety of topics. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. Many colleges award advanced credit and/or standing on the basis of the examination results. Summer work requirement: one reading, approximately two hours.

SPANISH

0413 SPANISH 1
PREREQUISITE: NONE
GRADERS 9-12 • FULL YEAR - 1 UNIT

This course is offered for those students who have had no previous training in Spanish and for those who need refinement of the basic skills. It is also appropriate for those who wish to begin the study of a second world language. Emphasis is on listening, speaking, reading and writing. Students acquire basic vocabulary including simple idiomatic expressions and learn the basic structure of the Spanish language. The study of the culture of the Hispanic world is an integral part of the course.

0425 SPANISH 2
PREREQUISITE: SPANISH 1 OR 8
GRADERS 9-12 • FULL YEAR - 1 UNIT

Students develop new vocabulary within the context of language and culture. Oral proficiency, reading comprehension and accuracy of written expression are skills which are emphasized at this level. Students have the opportunity to actively interact in Spanish as they learn about culture and communication in the target language.
0436 SPANISH 3  
PREREQUISITE: SPANISH 2  
GRADES 10-12 ✦ FULL YEAR - 1 UNIT  
This is the 3rd level of the Spanish sequence. It is the continuation of Level 2. Basic grammatical structures and vocabulary are reviewed. There is an emphasis on acquisition of new vocabulary and more advanced grammar. Reading, writing, listening and speaking are improved through activities that reinforce targeted vocabulary and grammar. An appreciation of the language and of Hispanic culture is developed by means of varied cultural activities. The course concludes with the Comprehensive Final Exam aligned to NYS Checkpoint B Standards.

0424 SPANISH 3 HONORS  
PREREQUISITE: SPANISH 2 AND TEACHER RECOMMENDATION  
GRADE 10 ✦ FULL YEAR - 1 UNIT  
This course begins an accelerated sequence which culminates with the Advanced Placement Spanish Language Examination in the twelfth grade. While some review is incorporated into the course, more attention is given to conversation, vocabulary expansion, grammar, in-depth reading and writing at an advanced level. The course concludes with the Comprehensive Final Exam aligned to NYS Checkpoint B Standards.

0434 SPANISH 4  
PREREQUISITE: SPANISH 3 AND CHECKPOINT B EXAMINATION  
GRADES 11-12 ✦ FULL YEAR - 1 UNIT  
This is a fourth-level high school program. Successful completion of this course fulfills an additional world language sequence. At this level emphasis is on conversation and culture. Through current events, cultural readings and videos, students continue their refinement of listening, speaking, reading and writing skills. Discussions, debates and original skits in Spanish are included throughout the course. The course consists of a series of cultural units of varying lengths, some of which are selected from among the following: current events, culture and society, music and dance, the culinary arts, immigration, challenges of indigenous cultures, and festivals. Grammar and vocabulary are reviewed, expanded and incorporated into each unit as appropriate for advancing proficiency.

0435 SPANISH 4 HONORS  
PREREQUISITE: SPANISH 3 HONORS AND TEACHER RECOMMENDATION  
GRADES 11-12 ✦ FULL YEAR - 1 UNIT  
This advanced course continues an accelerated sequence which culminates with the Advanced Placement Examination in the Spanish Language in the twelfth grade. This course offers in-depth study of previously introduced concepts with emphasis on advanced speaking, listening, reading and writing. Hispanic civilization and cultures are studied through readings, recordings and videos in the target language.

0444 SPANISH 5  
PREREQUISITE: SPANISH 4  
GRADE 12 ✦ FULL YEAR - 1 UNIT  
This fifth year course continues the advancement of the four language skills of speaking, listening, reading and writing. The course consists of a series of units of varying length, some of which are selected from among the following: relationships, current events, travel and leisure, business, medical, and media and technology. Grammar and vocabulary are reviewed, expanded and incorporated into each unit as appropriate for advancing proficiency.

Students enrolled in this course can pay tuition (at a significantly reduced rate) to MCC. Upon successful completion, students will receive credit from both Pittsford and MCC.
0452 **ADVANCED PLACEMENT SPANISH - LANGUAGE AND CULTURE**  
PREREQUISITE: SPANISH 4 HONORS AND TEACHER RECOMMENDATION  
GRADE 12 • FULL YEAR - 1 UNIT

In this advanced course, students will attain proficiency in the areas of listening, speaking, writing, reading and some literary analysis. As candidates for advanced placement in college, students acquire the ability to understand spoken Spanish in connected discourse, to speak with ease and fluency in conversational Spanish and to write persuasively and accurately on a variety of topics. High school course credit will be awarded upon completion of the Advanced Placement College Board exam associated with the course, and all other assignments through the end of the PCSD school year. Many colleges award advanced credit and/or standing on the basis of the examination results.

**LATIN**

0406 **LATIN 1**  
PREREQUISITE: NONE  
GRADES 9-12 • FULL YEAR - 1 UNIT

The course is for students beginning the study of Latin. It is especially appropriate for those who wish to begin the study of a second world language. The enhancement of language skills, both Latin and English as well as Latin’s influence upon English vocabulary and grammar, are central to the curriculum. This is a traditional course designed to bring students quickly to the stage of reading Latin passages about Roman culture and civilization in the early Roman Empire. Grammar, mythology, and ancient customs are woven into the context of the stories.

0427 **LATIN 2**  
PREREQUISITE: LATIN 1 OR LATIN 8  
GRADES 9-12 • FULL YEAR - 1 UNIT

This is the second unit of credit in the Regents sequence. Students’ grammar, translation, and comprehension skills expand significantly as they learn to assimilate previous material on a broader basis. Active student involvement via projects, reading aloud, and memorization help expand both Latin and English vocabularies. Grammar and culture intertwine as students read about Roman culture and civilization in the early Roman Empire.

0437 **LATIN 3**  
PREREQUISITE: LATIN 2  
GRADES 10-12 • FULL YEAR - 1 UNIT

This is the third unit of credit in the Regents sequence. Students are increasingly called upon to use their knowledge of Latin to comprehend both authentic and adapted passages. The grammar principles are more sophisticated as is the word study and derivation. Stories about Ulysses (Odysseus), Hercules, and Jason will prepare students to read selections from the following ancient authors: Martial, Caesar, Cicero and Vergil. Baths, gladiatorial games, weddings and funerals, as well as acknowledgment of Rome’s expansion under Julius Caesar and the emperors are among cultural topics studied. The spring semester concludes with an introduction to poetry. A comprehensive final exam aligned to the NYS language requirements is administered at the conclusion of this course.
0453 ADVANCED PLACEMENT LATIN
PREREQUISITE: LATIN 2*, LATIN 3
GRADES 11-12  •  FULL YEAR - 1 UNIT
[MHS AND SHS OFFERED IN 2018-2019 and 2020-2021]

This is a Latin Prose and Poetry course. The AP Latin curriculum affords students the opportunity to read from Books I, IV, V, and VI of Julius Caesar's *De Bello Gallico* and from Books I, II, IV, and VI of Vergil’s *Aeneid*. The historical and cultural background of Julius Caesar's campaigns in Gaul and the heroic epic story of Aeneas and the Trojan expatriates allow students to experience history, legend, and mythology as well as to find satisfaction in their own significant reading skills. Students will master literary techniques, elements of style, and specific vocabulary and idioms of Caesar and Vergil. The course will include the study of political, social and cultural backgrounds in the age and rule of Julius Caesar and his heir Augustus. The course concludes with the taking of the nationally administered Advanced Placement Latin Examination and all other assignments through the end of the PCSD school year. Many colleges award advanced placement credit, advanced standing, or both, on the basis of these examination results.

*The teacher may encourage a particularly able (broad world language background) student to enroll in this course.

0454 LATIN LITERATURE HONORS
PREREQUISITE: LATIN 2*, LATIN 3
GRADES 11-12  •  FULL YEAR - 1 UNIT
[MHS and SHS OFFERED IN 2019-2020 and 2021-2022]

This is a Latin literature course with college credit opportunity. The works of Catullus combined with those of Horace or Ovid or Cicero are read during the year. The 1st century B.C. provides the backdrop for the literature of the poet Catullus and one of the other writers in a given year. Students will master literary techniques, elements of style and each author’s specific vocabulary. The course will include the study of the political, social, and cultural backgrounds in the age and reign of Augustus. Students enrolled in this course can pay tuition (at a significantly reduced rate) to the University of Albany. Upon successful completion, students will receive credit from both Pittsford and the University of Albany.

*The teacher may encourage a particularly able (broad world language background) student to enroll in this course.

EXPERIENTIAL LEARNING

0528 LEADERSHIP DEVELOPMENT SEMINAR
Grades 9-12  •  SEMESTER (18 classes)

This seminar is open to all students. If you would like high school credit for your Career Internship Program (CIP) OR high school credit for your Cooperative Work Experience Program (CO-OP), you must complete Leadership Development Seminar (LDS). LDS students attend seminar once a week, for one semester only, during their high school experience. Students attend during one of their lunch periods (students may eat during the seminar). The seminars will help you make a successful “Career Connection” by developing and refining your workplace skills. The employment-related instruction will focus on successful transitions from school-to-career, job safety, work ethics and responsibilities, communicating for success, career advancement, and leadership.

*We suggest students take LDS during their Freshman year when they have more flexibility in their schedule.*
The Career Internship Program (CIP) is a school-business partnership that provides students the opportunity to obtain non-paid, on-site, career exploration experiences. The major objectives of the program are to:

- Provide students with real world experiences to obtain an awareness of interested careers so they make informed career and college choices for the future;
- Obtain first-hand understanding and appreciation of the knowledge, skill, occupation outlook and education requirements necessary for various occupations; and
- Introduce students to positive mentors who can help instill, reinforce and demonstrate important behaviors such as a positive attitude, integrity, ethics, human relations, teamwork, timeliness, etc.

Students have the opportunity to work 40-150 hours with a schedule that is determined by the mentor. Semester students must have consecutive periods free after 7th period. Summer students must make the internship their summer priority.

Acceptance into the program is based on:

- Completion of Leadership Development Seminar prior to starting internship
- Defined field of interest and mentor availability
- Good academic standing and recommendation from school counselor
- 10 hours of exposure to field of interest is required through classes, school clubs, community service in related field of interest, Explorers program or job shadowing
- Student/Parent provided transportation

The summer application deadline is the first Friday in January upon return from winter recess. Applications for an internship during the school year must be submitted 4-6 weeks prior to the requested start date. Internships cannot be guaranteed. If a specific internship is not available, other options can be explored with the student.

This is a NYS accredited course and summer students need to be prepared to devote their summer to internship work hours and required paperwork. Maximum of one internship per student with seniors given first priority. Parent or guardian is expected to supervise the internship to ensure all necessary requirements are being adhered to.

Credit issued as follows:

- Completed coursework and 40-74 Hours: (S) Satisfactory
- Completed coursework and 75-149 Hours: .25 Credit
- Completed coursework and 150+ Hours: .50 Credit

Apply online at: Pittsfordschools.org/career exploration
0547 COOPERATIVE WORK EXPERIENCE PROGRAM*
GRADES 9-12 ♦ FULL YEAR - ½ TO 2 UNITS OBTAINABLE OVER FOUR YEARS OF HIGH SCHOOL

The Cooperative Work Experience Program (Co-Op) provides students who are taking courses in the Business Department with an opportunity to gain practical work experience related to their classroom instruction by working in jobs within the community. Upon successfully completing the requirements of the Co-Op work experience program, you will earn:
- one-half (½) unit of academic credit for 150 hours of work experience
- or one (1) unit of academic credit for 300 hours of work experience for each year that you are enrolled in the program

This program is under the supervision of a certified teacher coordinator. If you are enrolled in the Cooperative Work Experience Program, you must have also completed Leadership Development Seminar.

*Cooperative Work Experience Program is referenced in more detail under Business Education Dept.

0846 COMMUNITY SERVICE PROGRAM
GRADES 6-12 ♦ ¼ - 1 UNIT CREDIT DURING SCHOOL YEAR/SUMMER

Pittsford Central School District’s accredited Community Service Program supports student grades 6-12 (School year starts July 1). Community Service is encouraged but not required. Students can receive school credit on their transcript by performing valuable and useful non-paid service in the community. Volunteer information and assistance is available in the Community Service Offices at the middle and high schools or online at pittsfordschools.org/community service.

For each completed service activity, students are required to submit a Community Service Form with parent verification (Under 10 hours) and agency verification (over 10 hours with one organization).

School credit is awarded and placed on the student’s school transcript in June of the junior year and September, January and June of the senior year:

<table>
<thead>
<tr>
<th>Hours</th>
<th>Credit</th>
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<tbody>
<tr>
<td>75</td>
<td>.25</td>
</tr>
<tr>
<td>150</td>
<td>.50</td>
</tr>
<tr>
<td>225</td>
<td>.75</td>
</tr>
<tr>
<td>300+</td>
<td>1.0</td>
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Students may receive a maximum of 1 full credit during their school career. All forms must be submitted within one year of service for credit and meet the criteria for community service. Senior early decision/action applicants must submit hours by the first Friday school is in session in September. Seniors can continue to submit all year long.
Pittsford Central Schools is a member school in The Network of Complementary Schools, Inc. which is a group of independent and public schools that have joined together to serve their students in an unique way by sharing their specialized programs. Programs are designed to be "intensive" experiences often focused on a single topic or being fully involved in a one or two week long experience in which the student goes to a member school and stays with a host family. Most of the Network programs offered take advantage of a special strength or resource of a particular school – often based on geographical or historical factors.

Students enrolled in Network member schools can elect any Network program across the country at no cost for tuition, room and board. Transportation costs are normally borne by the student's family. Some travel scholarships are available for families that cannot afford the travel expenses.

Network exchanges are open to students in grades 9 - 12 in good academic standing. Information and applications are available in the Counseling Office and online at [http://www.netcompsch.org](http://www.netcompsch.org)

**ONLINE LEARNING**

Online learning courses provide all instruction over the Internet as an alternative to our standard instructional program. Pittsford Central School District has a partnership with AccelerateU to provide online learning courses taught by New York State certified teachers. AccelerateU’s online learning courses are self-paced, interactive, instructor-led, content-rigorous offerings.

Some students, on occasion, under unique and compelling circumstances may need to take an online learning course. Online learning courses may be used to meet graduation requirements based on a student’s unique needs and circumstances. Online learning courses may be offered to students who have exhausted a Pittsford Central School District sequence of course offerings. The intent of allowing students to enroll in online learning courses is not to supplant or erode current course offerings; but to supplement course offerings for unique student needs and circumstances.

Each high school has a designated online learning coordinator. The coordinator works with the online teacher and AccelerateU staff to monitor and support the student’s progress. To be successful and fulfill course requirements, students need to be independent, self-motivated, and work in their courses at least 3-6 hours per week.

In all instances, the PCSD has approval authority over its student’s participation in online courses. Upon successful completion of an online course, Pittsford Central Schools will award credit.

Information and applications are available in the Counseling Office.
Eastern Monroe Career Center  
Career and Technical Education Programs  
2019-2020

Course descriptions are updated at the beginning of the school year, and it provides information about the course for the following school year. Every attempt is made to make sure this information is accurate at the time it is distributed, however, for the most up-to-date information on EMCC programs, please visit our webpage at: www.monroe.edu/emcc.

**COURSE DESCRIPTIONS:**

Automated Manufacturing and Machining: Two-Year Program
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. An 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 setup 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.

**Employment opportunities upon completion:**  

**Further educational opportunities:**  
Post-secondary programs in Machining, Engineering, Optical Technology Robotics and Business Management.

**Industry-based exams:**  
Precision Machining- National Occupational Competency Testing Institute Test or National Institute of Metal Working Skills (NIMS)

**Industry certifications:**  
National Institute of Metal Working Skills (NIMS) Certification

**High School Credit:**  
3.5 CTE a.m. / 3.0 CTE p.m. (max)  
Includes:  
1.0 English 12 (Advanced)  
1.0 Technical Science (Advanced)

**Dual Credit:**  
Monroe Community College (9 credits)

**Articulation Agreements:**  
Alfred State College  
University of Northwestern Ohio

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Auto Services: Two-Year Program
Students learn to repair and maintain a variety of vehicles. They learn to 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 a realistic, industry-based work environment.

Employment opportunities upon completion: Entry-level auto service technician positions
Further educational opportunities: Post-secondary programs in automotive technology and related mechanical trades (diesel mechanics, small engines etc.)
Industry-based exams: Automotive Service Excellence (ASE) Student certification exam
Industry certifications: Automotive Service Excellence (ASE) Student certification
High School Credit: 3.5 CTE a.m. / 3.0 CTE p.m. (max)
Includes: 1.0 English 12 (Advanced)
1.0 Technical Science (Basic)
Dual Credit: Monroe Community College (3 credits)
Articulation Agreements: Alfred State College
University of Northwestern Ohio

Biomedical Laboratory Technology: Two-Year Program
The demand for qualified graduates with a background in science and technology is increasing rapidly. Laboratory Technology introduces students to a variety of careers in the sciences and provides them with the knowledge and skills necessary to succeed in the rapidly growing career fields of biotechnology and the health sciences. During the basic year, students gain valuable skills in laboratory management, documentation, and equipment use followed by hands-on experiences in biotechnology, food science, and veterinary science. The advanced year’s focus on medical laboratory science trains students in phlebotomy and medical testing procedures. Upon program completion, students may choose to enter the workforce immediately or pursue advanced degrees in the sciences at two- and four-year colleges.

Employment opportunities upon completion: Forensic scientist, cytotechnologist, chemical technician, medical technologist, research associate
Further educational opportunities: Biochemistry, biotechnology, environmental science, vet technician
Industry-based exams/certification: National Occupational Competency Testing Institute (NOCTI) exam – Biotechnology
High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
Cisco Networking Academy: One-Year Program
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.

Employment opportunities upon completion: Entry-level positions such as help-desk technician, computer repair specialist, and telecommunications technician

Further educational opportunities: Post-secondary programs in computer science, programming, and network technology

Industry-based exams: National Occupational Competency Testing Institute (NOCTI)

Industry certifications: Preparation for CompTIA Network+, Cisco Certified Entry Networking Technician and Cisco Certified Network Associate certifications

High School Credit: 4.0 CTE Max, a.m. only
Includes:
1.0 English 12 (for seniors)

Collision Repair Technology: Two-Year Program
Students learn to repair and refinish collision-damaged vehicles. They learn the fundamentals of metal straightening, MIG-welding, detailing, painting, refinishing and customizing, 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.

Employment opportunities upon completion: Entry-level positions in the automotive field (detail shops, collision repair facilities, auto refinishing supply industry)

Further educational opportunities: Post-secondary programs in automotive and collision technology, engineering, and business management
Construction Trades: Two-Year Program

Students learn the fundamentals of commercial and residential construction. First-year students learn the fundamental principles and theoretical concepts of wall, floor, and roof framing, and exterior finishes including windows, doors, siding and roofing. Second-year students focus on masonry, basic residential plumbing, floor and wall framing, stairs and rafters. Students work on other related projects including, sheds and concrete forms.

Employment opportunities upon completion:
Entry-level positions in residential and commercial construction, estimator, exterior siding, finish carpenter, foreman, general contractor, mason, remodeler, roofer, rough carpenter

Further educational opportunities:
Post-secondary programs in construction trades, woodworking, architecture, management, and apprenticeships via the local carpenters' union

Industry-based exams:
National Center for Construction Education and Research (NCCER) Core Certification exam; NCCER Level 1 Carpentry and/or Masonry exam

Industry certifications:
NCCER Core Certification
NCCER Level 1 Carpentry and/or Masonry certification
Occupational Safety and Health Administration (OSHA) 10-hour certification

High School Credit:
3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced)
1.0 Technical Math (Advanced)

Articulation Agreements:
Alfred State College
Pennsylvania College of Technology (credit by evaluation)

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This course description is updated at the beginning of the school year, and it provides information about the course for the following school year. Every attempt is made to make sure this information is accurate at the time it is distributed. However, for the most up-to-date information on EMCC programs, please visit our webpage at www.monroe.edu/emcc.

**Cosmetology: Two-Year Program**

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 need to complete 1,000 hours of theory and practice before they are eligible to take the NYS Cosmetology Licensing Exam.

**Employment opportunities upon completion:**
Entry-level positions in cosmetology fields (upon successful completion of NYS board exam): hairstylist, nail technician, instructor, product educator, salon manager, salon owner, make-up artist, and esthetician (skin and spa services)

**Further educational opportunities:**
Esthetician, massage, and business programs

**Industry-based exams:**
National Occupational Competency Testing Institute (NOCTI) exam - Cosmetology

**Industry certifications:**
Preparation for the NYS Cosmetology licensing exam

**High School Credit:**
3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced)
1.0 Technical Science (Basic)

**Articulation Agreements:**
Bryant and Stratton

Criminal Justice: Two-Year Program

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 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.

**Employment opportunities upon graduation:**
Entry-level human service positions, security guard

**Further educational opportunities:**
Post-secondary programs in criminal justice, corrections administration, psychology, criminology, and political science
Industry-based exams: National Occupational Competency Testing Institute (NOCTI) exam – Criminal Justice/Law Enforcement; NYS Security Guard certification exam

Industry certifications: CPR, First Aid and AED certification; NYS Security Guard certification

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
- 1.0 English 12 (Advanced)
- 1.0 Technical Science (Basic)
- 0.5 Participation in Government (Advanced)
- 0.5 PE (Advanced)

Dual Credit: Monroe Community College (15 Credits)

This course description is updated at the beginning of the school year, and it provides information about the course for the following school year. Every attempt is made to make sure this information is accurate at the time it is distributed. However, for the most up-to-date information on EMCC programs, please visit our webpage at www.monroe.edu/emcc.

Culinary Arts: Two-Year Program
Students learn about the fast-paced careers of the restaurant 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.

Employment opportunities upon completion: Entry-level positions in culinary fields: dietician, dining room manager, executive chef, food production manager, food technologist, kitchen assistant, nutritionist, pastry chef/baker

Further educational opportunities: Post-secondary programs in Executive chef, food and beverage director, food management, food production manager, food service administration, food technologist, hotel/restaurant management, nutrition and dietetics, sous chef

Industry-based exams: National Occupational Competency Testing Institute (NOCTI) exam - Culinary Arts Cook Level-2; Pro-Start exam; ServSafe exam

Industry certifications: Pro-Start, ServSafe

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
- 1.0 English 12 (Advanced)
- 1.0 Technical Math (Advanced)
Early Childhood Education: Two-Year Program
Students explore multiple theories and stages of child development. Cognitive, social, and physical developmental milestones of toddlers and young children are identified. Students conduct observations of staff and children as they visit different early childhood education sites in the community. The opportunity for practical application is provided at Teens-n-Tots preschool at EMCC. Training hours are acquired toward the preschool Child Development Associate (CDA) credential.

Employment opportunities upon completion: Entry-level positions in day care, after-school, or recreational programs

Further educational opportunities: Post-secondary programs in human services, elementary education, early childhood education, and liberal arts

Industry-based exams: National Occupational Competency Testing Institute (NOCTI) exam - Early Childhood Education

Industry certifications: CPR, First Aid and AED certification; Coursework may be applied toward National Child Development Associate (CDA) credential

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced)

Dual Credit: Monroe Community College (3 Credits)

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Emergency Services: Two-Year Program
At Perinton Volunteer Ambulance
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 eight-week field internship and take the NYS EMT-Basic (EMT-B) certification exam*.

*According to the NYS Department of Health (NY-CRR 800.6) an applicant for initial Emergency Medical Technician certification must be 18 years of age prior to the last day of the month in which they will take the EMT-B certification exam. Due to this regulation, students must be 18 years of age by August 31st following their senior year in order to enroll in this program.

Additionally, 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 75% class average
- Have 100% attendance
- Register and pay for the associated dual enrollment course (Emergency Medical Technician – EMS 110, 6 credits) where students pay 1/3 the regular tuition per credit hour.

Employment opportunities upon completion: EMT, emergency dispatcher, patient care technician

Further educational opportunities: Post-secondary programs in nursing, fire science, paramedic, respiratory therapy, physical therapy, and mortuary science

Industry-based exams: NYS Department of Health (DOH) Certified First Responder exam, NYS DOH Emergency Medical Technician-Basic exam

Industry certification: Certified First Responder (CFR) certification
NYS EMT-Basic certification
American Heart Association CPR/AED

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced)
1.0 Technical Science (Advanced)
0.5 Health (Basic)

Dual Credit: Monroe Community College (13 Credits)

Articulation Agreements: Finger Lakes Community College

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Nail Technology and Waxing Specialty: One-Year Program
(Available 2019-2020)
This one-year program prepares students to become licensed nail and/or waxing specialists. Students learn manicures, pedicures, natural nail enhancement and artificial nail enhancement, including tips, wraps, gel and acrylic overlay and sculptured nails. Students also learn proper hair removal procedures.

After skills have been developed to a professionally acceptable level, students perform nail services on patrons in a clinical setting. Students need to be 17 years of age, complete 250 hours of theory and practice in the nail specialty area, 75 hours of theory and practice in the waxing specialty area and successfully complete the program before they are eligible to take the NYS Nail and/or Waxing Specialty Licensing Exams.

Employment opportunities upon completion: Nail technician, product educator, salon owner, salon manager, salon receptionist, nail care product educator, product salesperson, distributor sales representative, waxing specialist

Further educational opportunities: Post-secondary programs in Business Management, Medical Nail Technician, Marketing and Sales, Certified Master Pedicurist

Industry-based exams: National Occupational Competency Testing Institute (NOCTI) exam – Nail Specialty

Industry certifications: Preparation for the NYS Nail Technology Specialty and/or Waxing Specialty licensing exams

High School Credit: 3.0 CTE p.m.

Articulation Agreements: Bryant and Stratton

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New Vision Medical Careers: One-Year Program (Seniors Only)
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.

Employment opportunities upon completion: Entry-level positions in the health care field such as pharmacy technician, patient care technician, personal care aide

Further educational opportunities: Post-secondary program in nursing, pre-medicine, social work, pharmacy, speech pathology, occupational therapy, and physical therapy

Industry-based certifications: American Heart Association for Health Care providers CPR/AED; Six Sigma
PC Repair & Network Cabling: One-Year Program

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.

Employment opportunities upon completion: Entry-level position as help desk technician, computer repair specialist, system analyst trainee

Further educational opportunities: Post-secondary programs in computer science, programming, and computer repair technology

Industry-based exams: National Occupational Competency Testing Institute (NOCTI) exam - Computer Repair Technology

Industry certifications: Preparation for CompTIA A+ and CompTIA Network+ exams

High School Credit: 3.0 CTE, p.m. only

Dual Credit: Genesee Community College (4 Credits)

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Professional Health Careers: Two-Year Program
Students are provided with an exploratory experience of emerging health occupations. We 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. After successful completion of the program, students will have met the clinical and classroom requirements for the NYS Nursing Assistant exam. This course is also designed to help students enhance their leadership, communication and management skills. Professional behavior is imbedded throughout all aspects of the course.

Employment opportunities upon completion: Entry-level positions in health care such as patient care technician, nursing assistant, and pharmacy assistant

Further educational opportunities: Post-secondary programs leading to LPN, RN, NP; various health services programs (i.e. Physical Therapy, Occupational Therapy)

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced)
1.0 Technical Science (Advanced)
0.5 Health (Basic)

Industry-based exam: Nursing Assisting-National Occupational Competency Testing Institute

Industry-based certifications: NYS Nursing Assistant Certification (seniors only) and CPR

Articulation Agreements: Finger Lakes Community College
Wayne Finger Lakes BOCES LPN program

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Trade Electricity: Two-Year Program
Students interested in becoming an electrician participate in this program to learn how to control the power source for much of modern technology. Students develop individual and team skills as they learn the basics of residential and commercial wiring. They learn to work within OSHA regulations, install switches to meet different power needs, troubleshoot issues faced by people at home or work, and investigate emerging power needs and solar/wind technology.

Employment opportunities upon completion: Entry-level positions as residential/industrial electrician, electrical inspector, electrician's helper

Further educational opportunities: Post-secondary programs in various related fields (electrical technician, electrical engineering, instrumentation technician etc.); training through ABC (Associated Builders and Contractors); apprenticeships through the local Electricians Union (IBEW)
Industry-based exam(s): National Center for Construction Education and Research (NCCER) Core Certification exam

Industry-based certification(s): Occupational Safety and Health Administration (OSHA) 10-hour certification

Articulation Agreements: Alfred State College Pennsylvania College of Technology (credit by evaluation)

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Visual Communication and Photography: Two-Year Program
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.

Employment opportunities upon completion:
Entry-level positions such as animator, art director, art therapist, art director, art educator, exhibit/environmental designer, fine artist, graphic designer, illustrator, industrial designer, interior designer, new media designer, photographer

Further educational opportunities:
Post-secondary programs in graphic design, digital imaging, illustration, animation, advertising design, photography and new media design.

Industry-based exam(s):

Industry-based certification(s):
Adobe Certified Associate

High School Credit:
3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12 (Advanced – Visual Communication)

Dual Credit:
Monroe Community College (3 Credits)

Articulation Agreement(s):
Art Institute of Pittsburgh
Boston University's Center for Digital Imaging Arts
New England Institute of Art
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Welding & Fabrication: Two-Year Program
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.

Employment opportunities upon completion: Entry-level positions as a welder/fabricator

Further educational opportunities: Post-secondary programs in welding and applied technology; manufacturing and engineering; apprenticeship programs via local unions

High School Credit: 3.5 CTE a.m. /3.0 CTE p.m. (max)
Includes:
1.0 English 12
1.0 Science

Industry-based exam/certifications: Welding-National Occupational Competency Testing Institute Test

Articulation Agreements: Alfred State College
Pennsylvania College of Technology (credit by evaluation)
TO:

PROGRAM OF STUDIES NIGHT FOR PARENTS

Tuesday, January 29, 2019 at 6:30pm for MHS
Thursday, January 31, 2019 at 6:30pm for SHS