



**Rush-Henrietta Central School District**

**Secondary Program Course Guide**

**2017-2018**

**Junior High School  
Senior High School**

*Preparing every student for responsible citizenship,  
life-long learning, and college or career success.*

## **Equal Educational Opportunity**

### **Title IX of the Education Amendments of 1972**

The Rush-Henrietta Central School District does not discriminate on the basis of race, color, or national origin in the employment and educational opportunities it offers, including vocational educational opportunities.

Also, as required by Title IX of the Education Amendments of 1972, the Rush-Henrietta Central School District, Henrietta, New York, does not discriminate on the basis of sex in the educational programs or activities which it provides, including vocational programs, appointment of employees, employment pay and benefits, counseling service for students, access by students to educational programs, course offerings, textbooks, and student activities.

The District official responsible for the coordination of activities relating to nondiscrimination is the Assistant Superintendent of Human Resources and Strategic Initiatives. Any student or employee who feels that his or her rights under Title IX may have been violated by the District or its officials should contact the Human Resources office at 2034 Lehigh Station Road, Henrietta, NY 14467 (585-359-5044) for information regarding the complaint process. In addition, any student or employee may make an inquiry to a complaint directly to the Federal Office for Civil Rights. A grievance procedure is available to the public; interested persons should contact the Assistant Superintendent of Human Resources and Strategic Initiatives.

### **Section 504 of the Rehabilitation Act of 1973**

The Rush-Henrietta Central School District, Henrietta, New York, hereby gives notice that it does not discriminate on the basis of handicap in violation of Section 504 of the Rehabilitation Act of 1973. The District further gives notice that it does not discriminate on the basis of handicap in admission or access to its programs and activities, including vocational education programs. No person shall be denied employment solely because of any physical, mental or medical impairment which is unrelated to the person's ability to engage in the activities involved in the job for which application has been made.

Inquiries concerning this policy may be referred to the Director of Special Education, Section 504 Compliance Officer, West Henrietta Education Building (WHEB), 649 Erie Station Rd., West Henrietta, New York 14586. The phone number for the Director of Special Education is (585) 359-7933. A grievance procedure is available to the public; interested persons should contact the Director of Special Education.

NOTICE: There is no discrimination in course selection, and all courses offered are available to all students regardless of sex, race, national origin, or handicaps.

# *Rush-Henrietta Central School District*

## Secondary Program Course Guide

Published annually for Rush-Henrietta students

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# GLOSSARY OF TERMS

## Regents (R)

These courses are offered to prepare students for New York state required exams and the New York State Regents Diploma.

## Honors (H)

These enriched courses are for students who have a strong interest in a scholarly approach to the subject and who demonstrate a strong work ethic in their pursuit of learning.

## Advanced Placement (AP)

Rush-Henrietta offers Advanced Placement courses depending upon enrollment.

These courses are geared to the college freshman level and require a substantial commitment of time and effort by the student. All students enrolled in an Advanced Placement course are required to take the AP examination for that course. The AP exams are administered nationwide in May by the College Entrance Examination Board. Registration and fees for the exams must be submitted to the Assistant Principal's office. Information regarding financial assistance can be obtained from the Senior High Assistant Principal overseeing the AP program. Students who achieve a successful score on the AP exam may, at the discretion of their chosen college, receive college credit and/or advanced placement status.

If for any reason a student does not take the appropriate examination, colleges will be notified of a change in academic program and consequences imposed by the colleges are possible. Advanced Placement courses are indicated by (AP) following the course title.

## College Study

After successful completion of their sophomore year, students may take one and then up to two courses each semester/quarter, TUITION FREE, at the University of Rochester and/or Rochester Institute of Technology. Through these courses, students gain experience with college-level work and earn college credit that is reported on both their high school and college transcripts. Students are recommended for the program on the basis of academic record, interest, needs, and ability to perform successfully in a college setting. Students are responsible for their own transportation, books, and materials.

In order to meet New York State Education Department regulations, a student enrolled in a college class must complete approximately 108 hours in that class to earn one high school credit. All college grades and credits are posted to the student's high school transcript upon submission of the college report. Application forms and specific criteria are available in the Counseling Center.

## Independent Study

A student interested in extending his/her study of a specific area of interest may apply to pursue independent work. The student must meet with the subject-area teacher to develop a contract and then obtain approval from his/her parent/guardian, counselor, the department director, and school principal. Applications are available in the Counseling Center. Upon satisfactory completion of the Independent Study Contract, students will earn between one-quarter to one full credit.

## Dual Enrollment

The Rush-Henrietta School District has partnered with Monroe Community College (MCC) to offer our students the opportunity to earn college credits at a reduced tuition rate while earning their high school diplomas. Dual enrollment courses are taught by R-H high school teachers who are approved by and work closely with MCC faculty to ensure that their courses are equivalent to those offered on the MCC campus. Dual enrollment course offerings change annually. The Rush-Henrietta School District submits curriculum alignment and instructor credentials to MCC for initial approval. Once approved, the course may be offered.

## Credit By Examination

The New York State Regents have made provisions {100.5 (d) (1)} for a student to earn up to 6.5 credits towards a Regents diploma without completing units of study for those credits. This means that a student may earn credit for knowledge gained or study undertaken elsewhere. The following steps need to be completed for a student to fulfill the New York State requirements:

1. Completion of Application: A student must complete an application form stating both how the student gained knowledge, and how the student will benefit academically from this educational alternative. The student must have earned a 95% average in the academic subject area being pursued and obtain permission from prior teachers and his/her parent/guardian. The application form is available in the Counseling Center.
2. Taking a Pre-Test: This test is given by a teacher in the subject department from which the student is applying for credit. A student must score an 85% or higher to advance to Step 3.
3. Oral Exam or Project: The student must meet with the department director to determine the manner in which the student will demonstrate his/her competency in the subject area.
4. Final Exam: Upon successful completion of Step 3, the student will make arrangements with the department director to take the final examination. Credit will be granted upon achieving a minimum grade of 85% on this exam.

## Project Lead The Way (PLTW)

PLTW is the nation's leading provider of rigorous and innovative Science, Technology, Engineering, and Math (STEM) education for middle and high school students. PLTW's comprehensive curriculum that is collaboratively developed by PLTW teachers, university educators, engineering and biomedical professionals, and school administrators emphasizes critical thinking, creativity, innovation, and real-world problem solving. The hands-on, project-based program engages students on multiple levels, exposes them to areas of study that they typically would not pursue, and provides them with a foundation and proven path to college and career success in STEM related fields. The PLTW courses are listed in the science and technology sections of this course description book.

# EDUCATIONAL PROGRAM OVERVIEW

The Rush-Henrietta secondary schools program provides students with opportunities to develop their talents, abilities, and interests to the greatest extent possible. Our educational program is comprehensive and offers preparation for students who plan to continue their formal education beyond high school and for those who plan to enter into the workforce or the military. With the assistance of parents/guardians, counselors, and teachers, students should make decisions about their courses after careful reflection of their abilities and interest. It is vital for our students to graduate with the skills to succeed in credit-bearing academic college courses and/or in workforce.

In the junior high school program, students study the core content areas of English Language Arts, Math, Social Studies, Science, Health, Physical Education, Music, and Art. In addition, they begin their study of a language other than English (American Sign Language, French, German, or Spanish), Family and Consumer Science, Technology, and Business. Students have opportunities to choose areas of study that interest them by enrolling in elective courses.

In the high school program students continue to study the core content areas and have an opportunity to further pursue studies of interest through elective courses. Many of the Rush-Henrietta courses provide college credit opportunities such as, dual credit, advanced placement, and Project Lead the Way courses. Vocational courses are available through the Eastern Monroe Career Center.

Classroom instruction is based on the guiding principle that all students are strategic readers, thinkers, and writers. Literacy skills are explicitly taught during English Language Arts instruction and reinforced within content area instruction. Computational thinking and high level problem solving are explicitly taught during Math, Science, and Technology instruction. Information and Communication Technology skills are embedded into all content area instruction. Students use technology tools to obtain information, communicate, collaborate, critically think and create products of their learning.

As students review this Secondary Program Course Guide and make decisions for their secondary coursework, they should ask themselves these questions:

- Am I taking a variety of courses that will provide me with a good foundation for college or a career?
- Will I be challenged and motivated by the courses that I am selecting?
- Overall, is my secondary program preparing me to be a lifelong learner in a global community?

Education today is more valued and necessary than ever. The Rush-Henrietta educational program is designed for all students to graduate college and career ready. It is very important that our graduates are prepared for postsecondary education and/or training so they have more options and are successful in their future endeavors.





# Academic Programs

Art  
Business  
English Language Arts  
Family & Consumer Science  
Health  
Languages Other Than English  
Mathematics  
Music  
Physical Education  
Science  
Social Studies  
Technology

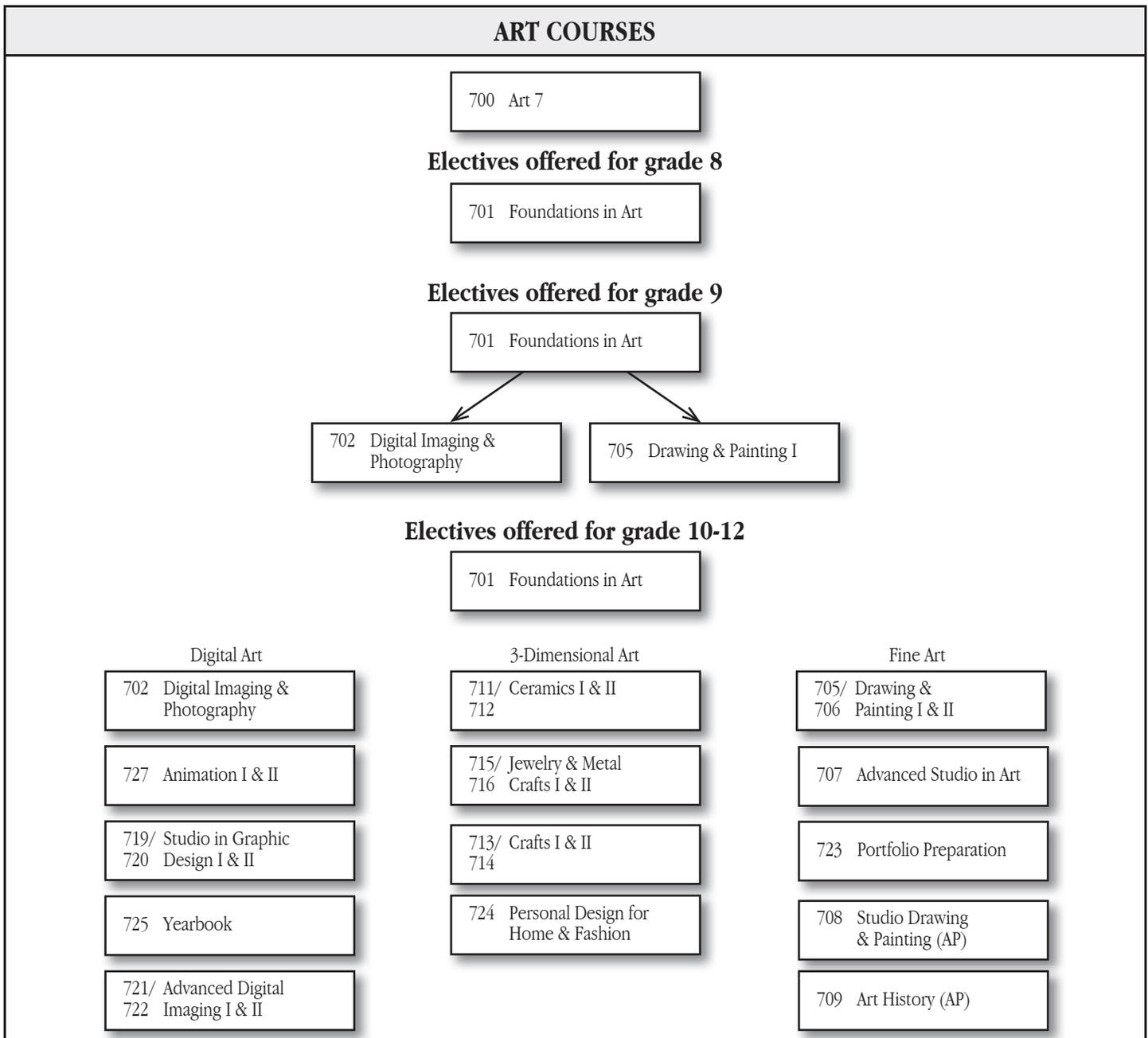


# ART

Visual arts and design play an increasingly prominent role in our lives. Artists and designers shape our environments and communicate the myriad visual messages we encounter every day. In Rush-Henrietta, courses in the visual arts help students make sense of their visual world, develop their ability to generate multiple solutions to problems, push the boundaries of media and form, and learn the habits of mind necessary to bring ideas to life.

In junior high, students are required to take a sequence of Arts instruction that begins with Art 7. In addition, students will take STEAM 8 which allows them to integrate Art, Music, and Technology content for real-world application and problem solving. Students of the visual arts have the opportunity to explore many different art forms, or to concentrate in one area of interest. Students with a strong interest in visual arts will want to purposefully structure their coursework in order to meet the prerequisite requirements to take AP Studio in Art in their senior year. Electives are offered beginning in eighth grade with Foundations in Art. Students who are considering a career in the visual arts should be taking a sequence of coursework, starting in eighth or ninth grade with Foundations in Art.

Level 2 courses may be taken in one semester, two semesters, or multiple times as an independent study. Students wishing to prepare for a specialized field of study in the visual arts will want to complete both semesters of a particular course in order to advance to level 3 (Advanced Studio in Art). Students taking AP Studio in Drawing and Painting should also enroll in Portfolio Preparation.



# BUSINESS

Business education encourages students to embrace the opportunities of today and tomorrow with confidence. Rush-Henrietta is excited to offer our business program as an approved New York State Career and Technical Education program of study that has as its purpose to provide students with the skills, attitudes and competencies to be successful in post-secondary study, the workforce, and as adult consumers.

Students will gain the knowledge and skills in finance, marketing, management, entrepreneurship, accounting, communications, and business technology. A comprehensive business and marketing education program in conjunction with academic study will most effectively prepare a student for lifelong success. Business classes provide students with a new perspective that leads to more focused college and/or career choices.

In Rush-Henrietta, students who are interested in pursuing a Regents diploma with Advanced Designation in Career and Technical Education must earn five units of credit from a combination of Business, Family and Consumer Sciences, and Technology courses.

## BUSINESS SEQUENCES

### Electives offered for grades 8-9

546 Business Entrepreneurship:  
Putting Ideas into Action

511 Computer Applications:  
Mastering Microsoft!

549 Principles of Marketing

### Electives offered for grades 10-12

#### General Business

#### Marketing & Finance

#### Business Ownership & Management

#### Work Based Learning

160 Leadership in Action

544 Accounting

550 Business Ownership  
and Management

509 Career Exploration  
Internship Program

501 Career and College  
Planning Seminar

695 Financial Literacy

505 Sports Management

699 Cooperative Work  
Experience

511 Computer Applications:  
Mastering Microsoft!

549 Principles of Marketing

595 Business Law

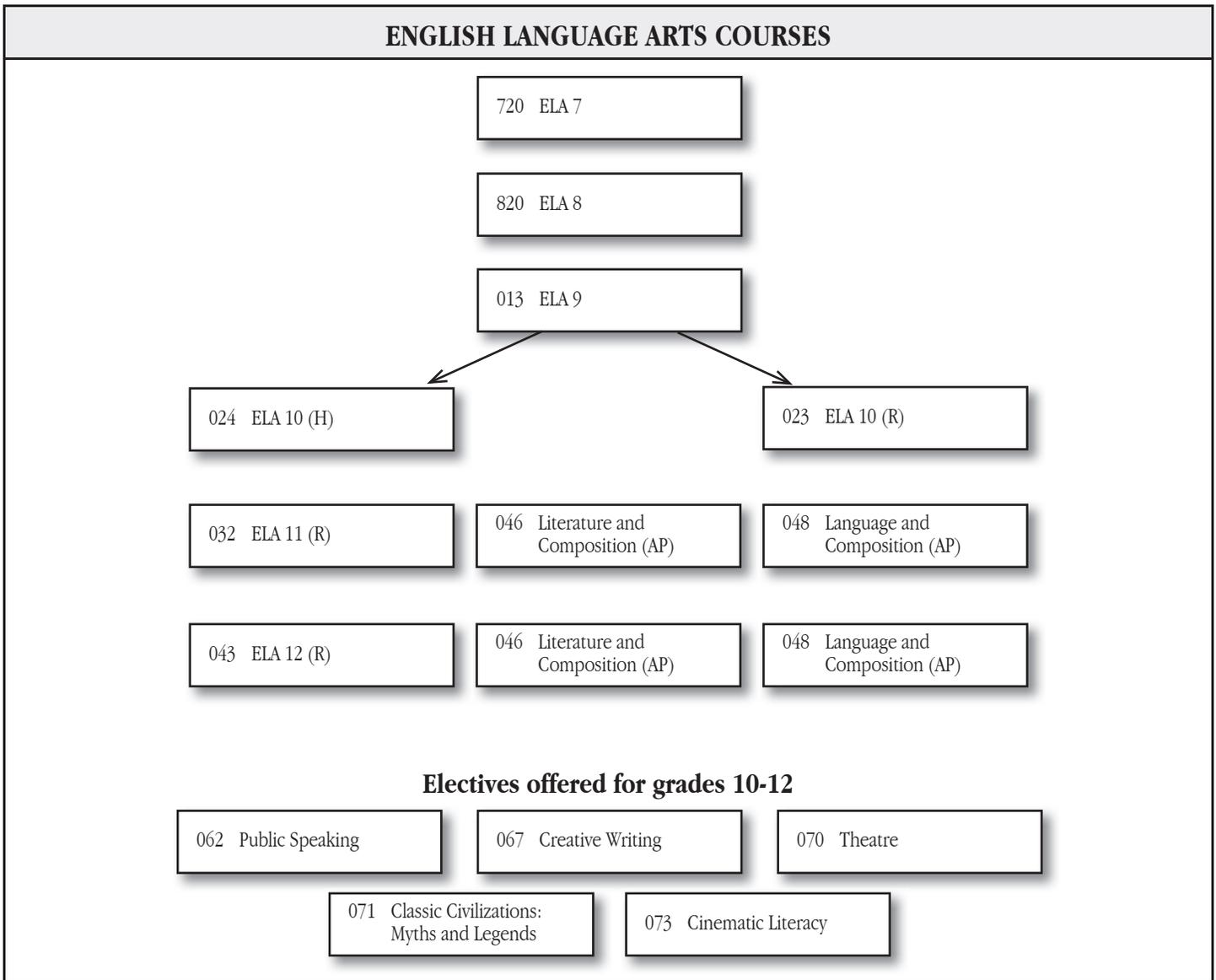
504 Entertainment Marketing

507 Advertising and Media  
Relations

# ENGLISH LANGUAGE ARTS

Our goal in Rush-Henrietta is to expose students at all grade levels to regular and varied opportunities to read, write, listen, and speak across all content areas. An English course is required each year in grades 7-12, and school year course work will be augmented with summer reading assignments to help all students achieve literacy levels sufficient to ensure college and career success. A variety of electives are offered to students in grades 10-12 who wish to further explore English Language Arts.

To receive a Regents diploma, students must pass the New York State Regents 11 Exam in Comprehensive English.



# FAMILY AND CONSUMER SCIENCE

Family and Consumer Science is the discipline that focuses on the roles and responsibilities students will assume as adults. Through an applied approach, students develop skills and attitudes that enable them to act responsibly toward themselves, their families, their peers, and society as a whole. The career and occupational studies emphasis in these courses help to guide students toward gainful employment and success in post-secondary programs.

In junior high, students are required to take Home & Careers 7 and Home & Careers 8. Students with an interest or affinity for this discipline have the opportunity to refine their studies with electives offered at the high school level.

## FAMILY AND CONSUMER SCIENCE COURSES

710 Home and Careers 7

810 Home and Careers 8

### Electives offered for grades 10-12

660 Introduction to  
Foods and Nutrition

668 Child and Adult  
Development

673 Food Science

# HEALTH

The Rush-Henrietta model of health education emphasizes the essential knowledge and skills necessary to adopt, practice, and maintain healthy behaviors. The curriculum focuses on the prevention of high-risk behaviors such as the use of tobacco and other drugs, dietary patterns and sedentary lifestyles, behaviors that have unhealthy consequences, such as disease or pregnancy, and behaviors that lead to violence or antisocial behaviors.

Students will develop and strengthen skills that will help them have healthy relationships, be goal-focused when making decisions, and self-advocate in pursuit of healthy lifestyles, both in and out of school.

Rush-Henrietta students are required to take health classes – Health 7 in seventh grade and one class of high school health at any time during grades 10-12. Several electives, listed below, are also available.

## HEALTH COURSES

775 Junior High Health

881 High School Health

### Elective offered for grades 8-9

875 The Teenage Brain

### Electives offered for grades 10-12

883 Death and Dying

884 Women's Health and  
Wellness

# LANGUAGES OTHER THAN ENGLISH

In Rush-Henrietta, our goal is to ensure that students have a deep and enduring understanding of cultures, including their own, and acquire functional proficiency in a language other than English. With these skills, students will be able to view the world through multiple lenses, participate fully and responsibly as global citizens, and achieve college, career, and world readiness. As students prepare for responsible citizenship in a global community the study of a language other than English will help them deepen their ability to communicate with knowledge, respect, and understanding of differing values, history, traditions, and cultures.

Students in junior high are required to take two years of a world language and pass the LOTE checkpoint A final exam in order to earn one credit of LOTE that is required for high school graduation. To earn a Regents diploma with Advanced Designation, students are required to take two additional units of LOTE and pass the comprehensive LOTE checkpoint B final exam.

For students interested in pursuing college after high school, a minimum of three years of LOTE may be required to meet the foreign language requirement for their undergraduate college major.

## LANGUAGES OTHER THAN ENGLISH (LOTE) COURSES

731 LOTE 7: French  
 732 LOTE 7: German  
 733 LOTE 7: Spanish  
 730 LOTE 7: ASL

404 LOTE 8: French  
 420 LOTE 8: German  
 442 LOTE 8: Spanish  
 462 LOTE 8: ASL

442 Level I: Spanish

404 Level II: French  
 422 Level II: German  
 444 Level II: Spanish  
 464 Level II: ASL

406 Level III: French  
 424 Level III: German  
 446 Level III: Spanish  
 466 Level III: ASL

408 Level IV: French  
 426 Level IV: German  
 448 Level IV: Spanish  
 467 Level IV: ASL

410 Level V: French  
 428 Level V: German  
 450 Level V: Spanish  
 468 Level V: ASL (2018-2019)

### Elective offered for grades 10-12

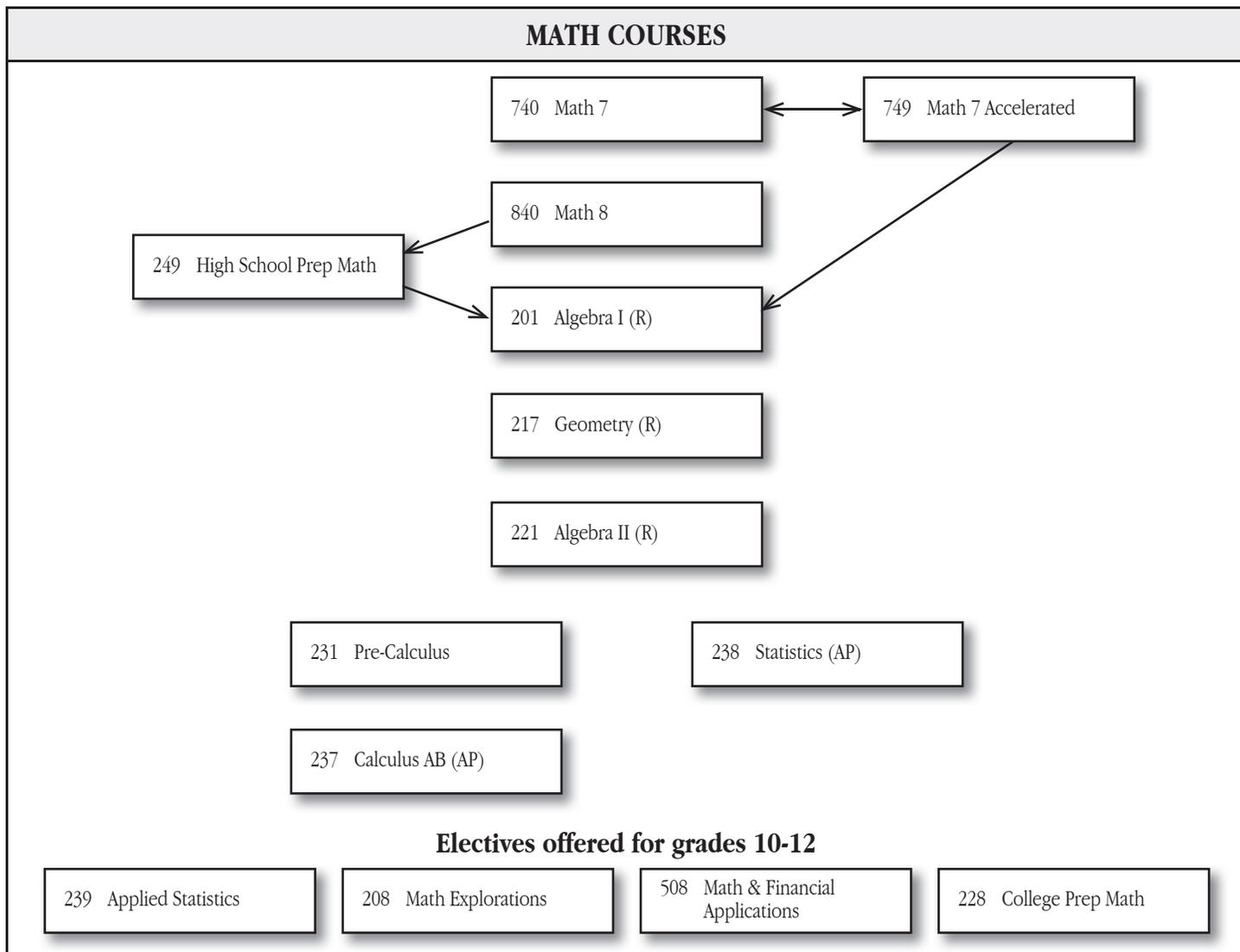
470 Foreign Study Seminar

# MATHEMATICS

In Rush-Henrietta, all students are required to take a math course each year during grades 7-12. An annual math course is required to help ensure that students stay engaged in mathematical learning to build their skills and be prepared for the rigors of college study.

Learning mathematics is a continuous process that builds on earlier learning and develops mathematical practices. Our mathematics curriculum is designed to provide students with the appropriate understanding, knowledge, and skills that will prepare them for higher level mathematics coursework, interdisciplinary studies and areas of further post-secondary study and careers.

To earn a Regents diploma, all students must earn three credits in mathematics and earn a passing grade on one of the following Regents exams; Algebra I, Geometry, or Algebra II. Students who pass all three Regents exams fulfill the mathematics requirements to earn a Regents diploma with Advanced Designation.



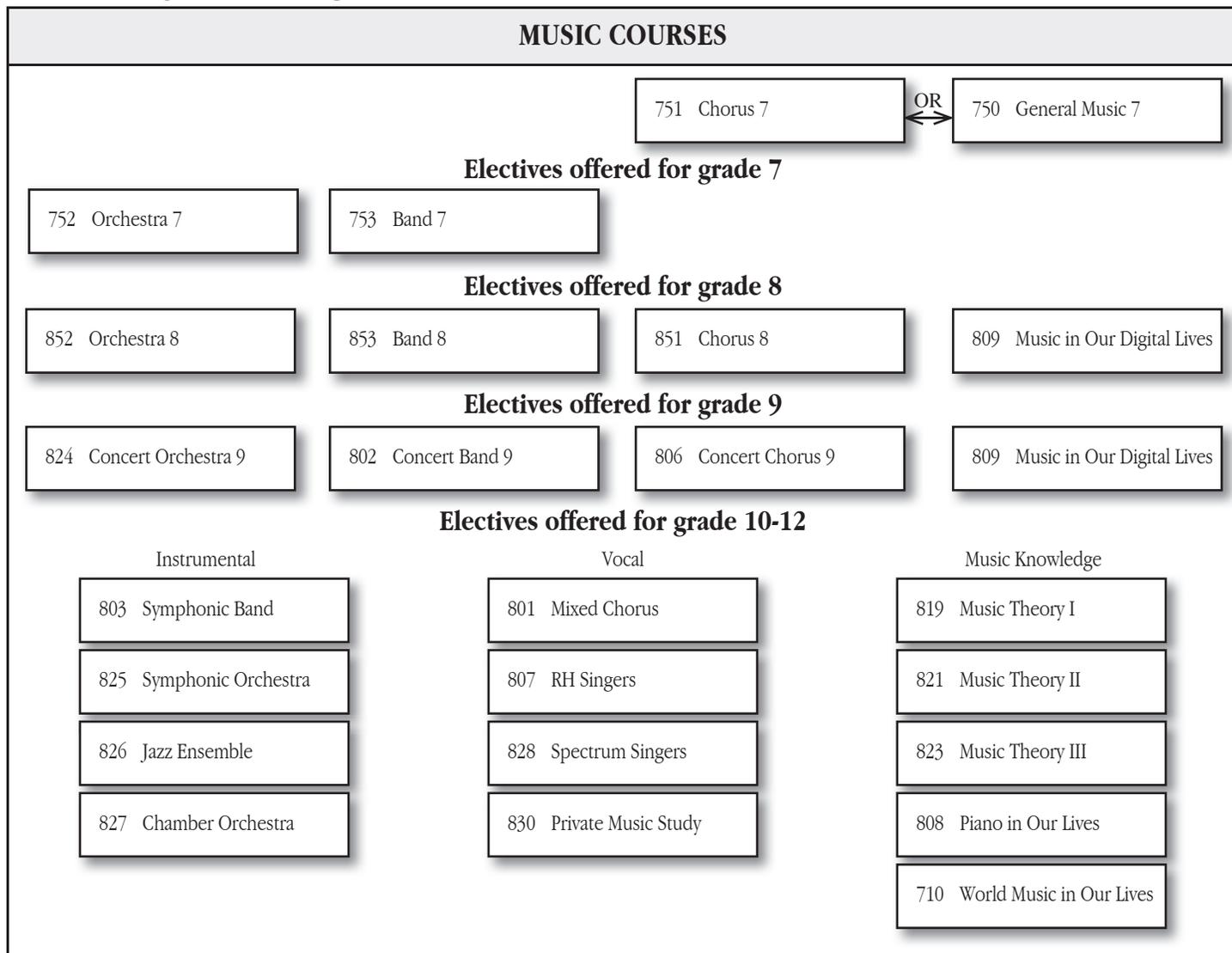
# MUSIC

A comprehensive, sequential music education teaches students, regardless of background, talent, or ability, to value themselves and the world in unique ways. It encourages the development of a growth mindset in which students learn to provide and use continuous feedback in real-time. Music education develops a variety of life skills, such as self-discipline, long-term goal setting, and perseverance, and helps students develop higher order cognitive skills, including creative problem-solving and divergent thinking, that readily transfer to other curricular areas. The study of music encourages the understanding of different civilizations and cultures and allows for the creation and performance of artistic works.

In junior high school, students are required to take a sequence of Arts instruction, beginning with Chorus 7 or General Music 7. In addition students will take STEAM 8 which offers students the opportunity to integrate Art, Music and Technology content for real-world application and problem-solving.

Music elective courses at the junior high level allow students to continue their development in both instrumental (Band or Orchestra) and a vocal ensemble (Chorus). Students who show an interest in music beyond the performing arts may take the Music in Our Digital Lives course to further explore music appreciation in a technology-empowered learning environment.

At the high school, all students must earn at least one credit in music or art in order to graduate. Music courses that satisfy this requirement are listed on pages 46-48 and include a combination of performing ensembles and general music courses. Students who are interested in pursuing a Regents diploma with Advanced Designation in the Arts must take a combination of music courses that include musical knowledge and skill development.



# PHYSICAL EDUCATION

Rush-Henrietta physical education is a required sequential program based on physical activities undertaken in an active, caring, supportive, and non-threatening atmosphere where every student is challenged and can be successful. The interdisciplinary nature of physical education provides opportunities for all students to achieve the knowledge, skill, and values that will develop and strengthen their sense of well-being and enhance the quality of their lives.

Physical education in grades 7-12 will emphasize physical fitness, skill development/refinement, socialization, cooperation, responsibility, and respect for others. All students will participate in physical fitness testing throughout the year. Students in grades 10-12 may also be required to participate in swimming.

All students in grades 9-12 are required to pass physical education in each of their eight semesters prior to graduation. Students earn 1/4 credit each semester (1/2 credit per year) for a four-year total of two units of credit. **Students may not graduate unless they have successfully fulfilled this requirement.**

## PHYSICAL EDUCATION COURSES

760 Physical Education 7

860 Physical Education 8

861 Physical Education 9

919 Physical Education 10  
920

919 Physical Education 11  
920

919 Physical Education 12  
920

# SCIENCE

All Rush-Henrietta students are required to take four science classes between grades 7 and 12. Typically, students take Science 7 in seventh grade, Earth Science in eighth grade, and Biology in ninth grade. Students are required to take one additional science course during grades 10-12. This can be chosen based on the student's individual interests and aptitude. Many electives, some of which are listed in the Technology section on page 55, are available to these students.

The Rush-Henrietta science program offers continued investigation into topics related to both life and physical science so that students can build an understanding of the world around them. Practices that are common to both scientists and engineers are emphasized, such as, asking questions, defining problems, constructing models, gathering and analyzing data, and constructing explanations about what is observed. A student-centered, laboratory-based approach is used to help students answer questions about their world while preparing them for Regents-level science coursework.

## SCIENCE COURSES

770 Science 7

302 Earth Science (R)

322 Biology (R)

### Foundational Science Courses offered for grades 10-12

329 Physical Science-  
Chemistry

339 Physical Science-Physics

332 Chemistry (R)

342 Physics (R)

335 Chemistry (AP)

343 Physics I (AP)

### Electives offered for grades 10-12

364 Environmental  
Science

362 Science & Society

370 Imaging Science

373 Digital Earth

355 Environmental  
Science (AP)

673 Food Science

325 Biology (AP)

366 Forensic Science I  
367 Forensic Science II

# SOCIAL STUDIES

In Rush-Henrietta, Social Studies courses are designed to help students learn about themselves, who they are, and where they fit into the human story. Students learn to recognize and appreciate the delicate balance of rights and responsibilities in an open society and develop the lifelong learning skills of analysis and reflection that will prepare them for effective, thoughtful, and informed citizenship. Social Studies courses encourage students to engage in the study of social, geographical, political, historical, and economic aspects of the human story.

Students are required to take a Social Studies course each year in grades 7-12. All students follow a Regents program that culminates in two New York State Regents exams. The first Social Studies Regents exam will be given at the completion of Global History 10. The second Social Studies Regents exam will be administered upon the completion of the United States History and Government course. To receive a Regents diploma, students must earn a passing grade on both Regents exams.

A variety of electives are available to students in grades 10-12 who would like to further explore Social Studies.

## SOCIAL STUDIES COURSES

780 Social Studies 7

880 Social Studies 8

114 World History  
Pre-AP 9 (H)

113 Global History and  
Geography 9 (R)

158 World History 10 (AP)

123 Global History and  
Geography 10 (R)

142 U.S. History (AP)

133 U.S. History and  
Government 11 (R)

156 Economics (AP)

136 Economics (R)

157 Government and  
Politics U.S. (AP)

146 Civics and Citizenship (R)

### Electives offered for grades 11-12

151 Criminal Law

152 Introduction to  
Psychology

154 Introduction to  
Sociology

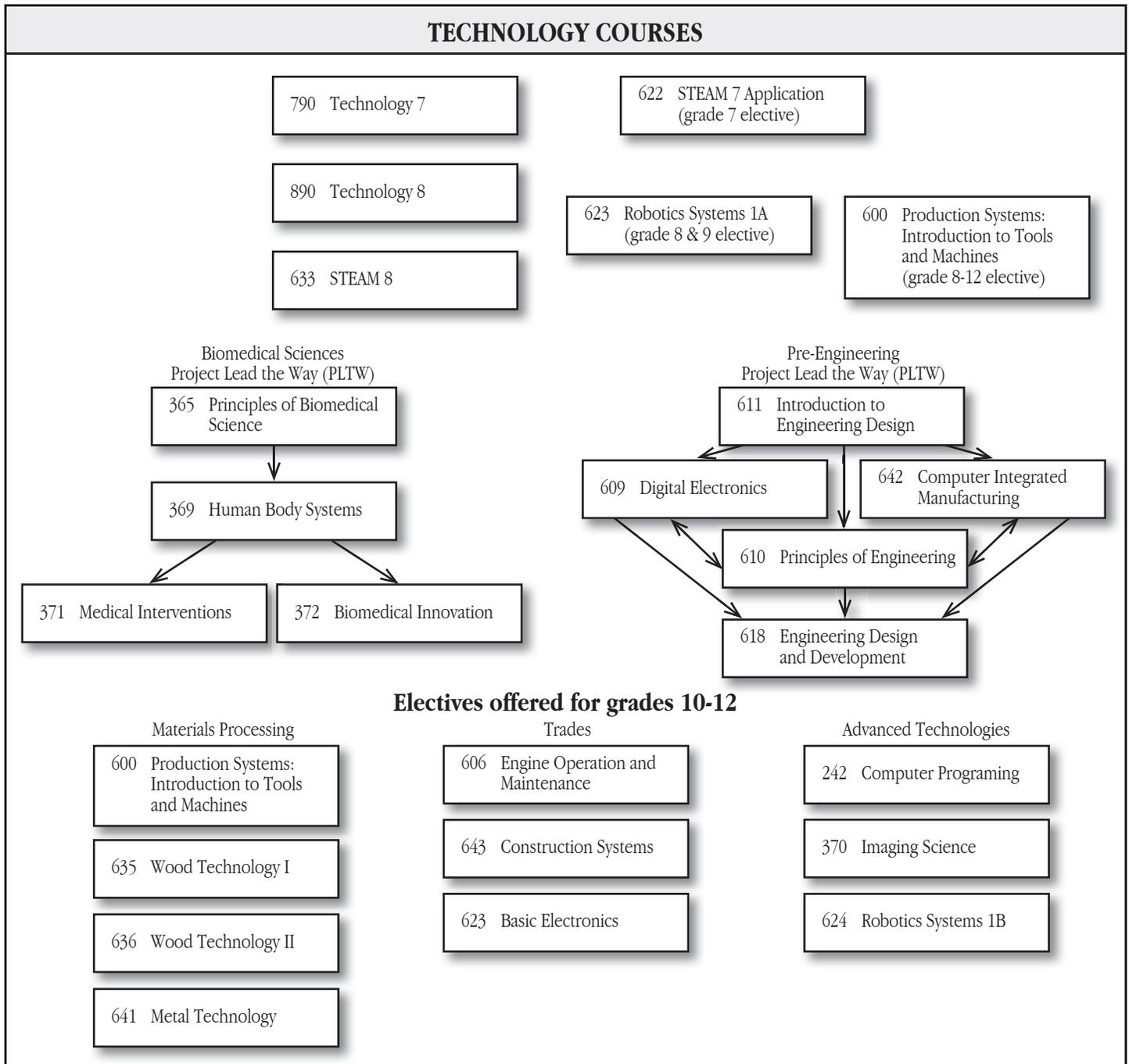
155 American Women:  
Past and Present

# TECHNOLOGY

In Rush-Henrietta, students are required to take Technology 7 in seventh grade, and Technology 8 and STEAM 8 in eighth grade.

Students entering ninth grade have an outstanding opportunity to pursue additional coursework in health technology and engineering by taking one of two four-year elective sequences. The Biomedical Sciences and Pre-Engineering Project Lead the Way sequences provide students with a meaningful path to learn more about these topics and quite possibly discover a new passion that leads to college or career success.

Technology education allows students to apply thinking skills and knowledge that connect math, science, and technology. By engaging in projects and problem-based learning, students will build habits of mind that are essential for college and career readiness, such as systems thinking, creativity, collaboration, and effective communication. Careers in technical fields are growing at an accelerated pace. These careers may be in the applied technologies field or on advanced areas of Science, Technology, Engineering and Math (STEM) and require some post-secondary education.





Henry V. Burger Building

# **Junior High School**



Charles H. Roth Building

# JUNIOR HIGH COURSE PLANNING

Use this sheet as a guideline in planning your Junior High program.  
Individual programs may vary due to a student's interests and needs.

Required courses are indicated in **bold** font.

For courses that fulfill a high school graduation requirement, the credit is indicated with a parenthesis "( )".

| Subject                               | 7th Grade<br>(0.5 elective)  | 8th Grade<br>(1.5 electives)   | 9th Grade<br>(3.5 electives)  |
|---------------------------------------|--|--|---|
| English                               | <b>ELA 7</b>   | <b>ELA 8</b>   | <b>ELA 9 (1.0)</b>  |
| Mathematics                           | <b>Math 7</b><br>or<br><b>Math 7 Accelerated</b>                         | <b>Math 8</b><br>or<br><b>Algebra 1 (1.0)</b>  | <b>Algebra 1 (1.0)</b><br>or<br><b>Geometry (1.0)</b>   |
| Science                               | <b>Science 7</b>   | <b>Earth Science (1.0)</b>   | <b>Biology (1.0)</b>  |
| Social Studies                        | <b>Social Studies 7</b>  | <b>Social Studies 8</b>  | <b>Global History &amp; Geo 9 (R) (1.0)</b><br>or<br><b>World History Pre-AP 9 (H) (1.0)</b>  |
| Art                                   | <b>Art 7</b>   | Foundations in Art (1.0)   | Foundations in Art (1.0)<br>Drawing and Painting I (0.5)<br>Digital Imaging & Photo (0.5)   |
| Business                              |  | Business Entrepreneurship (0.5)  | Business Entrepreneurship (0.5)<br>Principles of Marketing (0.5)<br>Computer Applications:<br>Mastering Microsoft! (0.5)                            |
| Family & Consumer Science             | <b>Home and Careers 7</b>  | <b>Home and Careers 8</b>  |   |
| Health                                | <b>Junior High Health</b>  | The Teenage Brain (0.5)  | The Teenage Brain (0.5)   |
| Language Other Than English<br>(LOTE) | <b>LOTE 7</b><br>(ASL, French, German, Spanish)                          | <b>LOTE 8 (1.0)</b><br>(ASL, French, German, Spanish)  | <b>LOTE I Spanish (1.0)</b><br><b>LOTE II (1.0)</b><br>(ASL, French, German, Spanish)   |
| Music                                 | <b>General Music 7</b><br>or<br><b>Chorus 7</b><br>Orchestra 7<br>Band 7 | Music in Our Digital Lives (1.0)<br>Chorus 8<br>Orchestra 8<br>Band 8                                | Music in Our Digital Lives (1.0)<br>Concert Chorus 9 (0.5)<br>Concert Orchestra 9 (0.5)<br>Concert Band 9 (0.5)                                     |
| Physical Education                    | <b>Physical Education 7</b>  | <b>Physical Education 8</b>  | <b>Physical Education 9</b>   |
| Technology                            | <b>Technology 7</b><br>STEAM 7 Application                               | <b>Technology 8</b><br><b>STEAM 8 (0.5)</b><br>Production Systems (0.5)<br>Robotics Systems 1A (0.5) | Production Systems (0.5)<br>Robotics Systems 1A (0.5)<br>Introduction to Engineering and<br>Design (1.0)<br>Principles of Biomedical Sciences (1.0) |

# 7TH GRADE COURSES

## **720 ELA 7**

Grade Level: 7  
Course Length: full year

Students taking ELA 7 will learn skills that will advance their reading and writing abilities. Building on skills already learned, students will read a selection of books that will help them develop the ability to infer, synthesize, and cite evidence from text. The themes for the units of study in ELA 7 include identity, an introduction to Shakespeare, and Growing Up Digital. Some of the core texts that students will enjoy may include *The Outsiders*, *The House of Mango Street*, *Twelfth Night*, and *A Long Walk to Water*.

## **740 MATH 7**

Grade Level: 7  
Course Length: full year

Students taking Math 7 will build on what they already know about addition, subtraction, multiplication, and division with whole numbers, fractions, and decimals. Students also will learn about ratios, rates, interest, profits, discounts, and more. Building on what they know about equations, students will learn to write, solve, and graph inequalities. In addition, students will learn about probabilities, plotting points on coordinate planes, and working with positive and negative numbers. They also will have the opportunity to learn about geometric figures, their properties, angle measures, and relationships between sides in polygons.

## **749 MATH 7 ACCELERATED**

Grade Level: 7  
Course Length: full year

Students who demonstrated an aptitude and ambition for math curriculum in sixth grade likely have been recommended by their teacher to take Math 7 Accelerated. In this class, students will learn all of the seventh grade math concepts, as well as some eighth grade concepts, such as transformational geometry, more complex equations, and the Pythagorean Theorem. Those who do well in this course will be prepared to take Algebra I in eighth grade, one year earlier than many students take the class.

## **770 SCIENCE 7**

Grade Level: 7  
Course Length: full year

Seventh grade science offers a continued investigation into topics related to both life and physical sciences. Students will build upon their understanding of topics related to Genetics and Inheritance, Natural Selection, the Chemistry of Life, Forces & Motion and Ecology. Practices that are common to both scientists and engineers - such as asking questions, defining problems, constructing models, gathering and analyzing data, and constructing explanations about what is observed - are emphasized. A student-centered, laboratory based approach is used to help students answer questions about their world while preparing them for Regents-level Science coursework.

## **780 SOCIAL STUDIES 7**

Grade Level: 7  
Course Length: full year

Students will examine the United States and New York state through a historical lens. This is the first year of a two-year curriculum sequence, beginning with the settlement of North America by Native Americans. The content is presented chronologically and incorporates geography as well as economic, social, and political trends. The course content is divided into eight Key Ideas, tracing the human experience in the United States from pre-Columbian times until the Civil War and Reconstruction, with a focus on the people, events, and places in New York state as applicable. Throughout the course, teachers help students see connections across time. Although the course emphasize the skill of chronological reasoning and causation, the courses also integrate the skills and content from geography, politics, economy, and culture into the study of history.

## **700 ART 7**

Grade Level: 7  
Course Length: full year, alternating days

Students will develop their ability to create and design complex artworks using a variety of art tools and media. Through problem solving and innovation, students will develop their knowledge of the Art Elements and Design Principles, including an understanding of space and structure, movement, color, and light. Students in this course will learn about textile design and fiber arts, through weaving, gaining first-hand exposure to careers related to this field.

**710 HOME AND CAREERS 7**

Grade Level: 7

Course Length: one semester, alternating days

Home and Careers education emphasizes strategies to help individuals with the challenges of living and working in a diverse global society. Students will begin to investigate their career interests, and develop plans that will help them in meeting their career goals. Students will also learn how to be active and engaged consumers while developing their understanding of concepts related to nutrition, wellness, social media marketing, and financial literacy.

**775 JUNIOR HIGH HEALTH**

Grade Level: 7

Course Length: full year, alternating days

Health education emphasizes skills and habits that enable students to plan for and live a healthy lifestyle. Students develop skills in communication, self-advocacy, healthy relationship management, and goal setting while building their background knowledge about health topics relevant to teenagers. Units of study include Cybersafety, Violence Prevention, Substance Use/Abuse, and Issues in Growth, Development, and Disease Prevention. An inquiry-based approach will allow students to research topics of interest, consider opposing viewpoints, and develop strategies for dealing with difficult problems.

**731 LOTE 7: FRENCH****732 LOTE 7: GERMAN****733 LOTE 7: SPANISH****730 LOTE 7: ASL**

Grade Level: 7

Course Length: full year, alternating days

Students begin their study of a world language in 7th grade. Students are offered a choice of four languages: American Sign Language (ASL), French, German, or Spanish. At this introductory level, special emphasis is placed on developing communicative proficiency in understanding and speaking the foreign language. At the same time, students will be introduced to the culture and civilizations of the respective countries where the target language is spoken.

Students must complete two years of LOTE study (grade 7 first year) and pass the Checkpoint A Examination at the end of LOTE 8 in order to earn the minimum one (1) unit of LOTE credit required for high school graduation. The two year sequence is equivalent to a Level I LOTE course.

**750 GENERAL MUSIC 7**

Grade Level: 7

Course Length: full year, alternating days

Students in 7th grade General Music will explore rhythm, melody, harmony, musical expression, and creativity while playing classroom instruments, learning GarageBand composition, and studying music genres. Students will identify and apply elements of music to create original works, using standard notation and music symbols. Students will listen to, analyze, improvise, and respond to a variety of musical works and genres. A classroom music performance will be required. Students who take General Music 7 may also participate in Band 7 or Orchestra 7 as an elective course.

Students who do not take General Music 7 must take Chorus 7.

**751 CHORUS 7**

Grade Level: 7

Course Length: full year, alternating days

Students in 7th grade Chorus will develop healthy vocal technique, learn sight-reading skills, music literacy, and basic music theory while creating and performing three- and four-part choral repertoire in a variety of genres. Engaging in the four artistic processes, students will create, perform, respond to, and connect with music. A minimum of two concert performances will be required for participation in this course. Students who take Chorus 7, may also participate in Band 7 or Orchestra 7 as an elective course. Students who do not take Chorus 7 must take General Music 7.

**752 ORCHESTRA 7**

Grade Level: 7

Course Length: full year, alternating days

Seventh grade Orchestra is a continuation of sixth grade orchestral studies. Students continue to develop the discipline of consistent practice and the commitment to achieving group goals, while developing the skills to become independent musicians. Engaging in the four artistic processes, students will create, perform, respond to, and connect with music. A minimum of two concert performances will be required for participation in this course. Weekly instrumental lessons are required for participation in this course.

**753 BAND 7**

Grade Level: 7

Course Length: full year, alternating days

Seventh grade Band is a continuation of sixth grade band instrumental studies. Engaging in the four artistic processes, students will create, perform, respond to, and connect with music. Students continue to develop the discipline of consistent practice and the commitment to achieving group goals while developing the skills to become independent musicians. A minimum of two concert performances will be required for participation in this course. Weekly instrumental lessons are required for participation in this course.

**622 STEAM 7 APPLICATION**

Grade Level: 7

Course Length: full year, alternating days

Design thinking is a set of tools, methods, and processes that allow students to create innovative solutions to problems impacting their school community. Students in the Design Lab will use the design cycle to research and develop solutions to problems that are of interest to them. These may include cyberbullying, digital learning, health & safety, or other issues. This is an introductory course that makes use of multimedia tools and design software, and emphasizes 21st-century skills of Information Communication Technology.

**760 PHYSICAL EDUCATION 7**

Grade Level: 7

Course Length: one semester, alternating days

Physical Education emphasizes physical fitness through a variety of activities to include games, individual and team sports, leisure activities and personal performance activities.

Students will learn proper weight-room etiquette and technique while learning to develop and follow a personal training program. Program will concentrate on improving cardiovascular fitness, muscle strength, and muscle endurance using free weights, resistance training, and core workouts.

**790 TECHNOLOGY 7**

Grade Level: 7

Course Length: one semester, alternating days

Students engage in the engineering design process as they learn about tools and processes that can be used to solve problems. Using Computer Aided Design (CAD) software, students learn to create a “virtual image” of an object, and investigate computer based machinery that will bring the object to production. Other computer languages and programming concepts are used to manipulate robots so they perform simple tasks, and investigate apps that can solve problems people encounter every day.

# 8TH GRADE COURSES

## **820 ELA 8**

Grade Level: 8  
Course Length: full year

Students taking ELA 8 will continue to build their skills as a reader and writer in preparation for high school. In eighth grade, students will have opportunities to study interesting topics such as the refugee experience, Japanese-American relationships, and the sustainability of the world's food supply. Some of the core texts that students in eighth grade will enjoy may include *Unbroken*, *Inside Out and Back Again*, and *The Omnivore's Dilemma*.

## **840 MATH 8**

Grade Level: 8  
Course Length: full year

Students taking Math 8 will continue to advance their skills, learning about systems of equations, writing equations for situations presented as word problems, and beginning to understand functions, which are the basis for future math classes. Working with numbers in scientific notation – just like an astronomer, biologist, or physicist – students will measure objects that are very large or very small. In addition, they will graph equations on coordinate planes and learn about transformations such as reflections and translations.

## **201 ALGEBRA I**

Grade Level: 8  
Course Length: full year  
Credits: 1.0

Students who have demonstrated themselves to be high-achieving math students have the opportunity to take the Common Core Algebra course in eighth grade. This enables them to earn a high school credit before entering ninth grade. In this course, students will learn more about functions, and expand their understanding of inequalities, exponents, quadratics, polynomials, and statistics. Students taking Algebra I in eighth grade are required to maintain an average of 85 percent or higher on common unit assessments.

## **302 EARTH SCIENCE (R)**

Grade Level: 8  
Course Length: full year  
Credits: 1.0

The major understandings and skills of the Earth Science course are divided into three sections: Geology, Meteorology, and Astronomy. Geology includes the study of the history and structure of planet Earth, its internal forces and consequences of tectonic movements, as well as rocks and minerals. This will also include the study of a local park. Meteorology is the study of weather and climate, the external forces affecting them, and forms of violent storms. In Astronomy, students study the universe, stars, our solar system, and earth formation. Problem solving and teamwork are emphasized in this course. Per New York State Education Department regulations, students are required to successfully complete 1,200 minutes of lab experience with acceptable lab reports in order to take the Earth Science Regents exam given in June of the course year.

## **880 SOCIAL STUDIES 8**

Grade Level: 8  
Course Length: full year

Students continue to examine the United States and New York state through a historical lens. This is the second year of a two-year curriculum sequence, concluding with an examination of the United States in the 21st century. The content is presented chronologically, beginning with a review of Reconstruction and ending at the present, and incorporates geography as well as economic, social, and political trends. The course content is divided into nine Key Ideas; the first seven trace the human experience in the United States from Reconstruction to the end of World War II. The last three Key Ideas examine different themes in United States and New York state history from the post-war period up to the present day. This provides the opportunity to explore contemporary issues. Although the course emphasizes the skill of chronological reasoning and causation, it also integrates the skills and content from geography, politics, economy, and culture into the study of history.

**701 FOUNDATIONS IN ART**

Grade Level: 8-9  
 Course Length: full year  
 Credits: 1.0

Students will engage in the four artistic processes (creating, presenting, responding, and connecting) using the Art Elements and Design Principles to create and present works of art. Students will work in 2-D and 3-D and learn digital art tools. Students will explore a variety of artists, art processes and materials, such as pencil, watercolor, pastel, and printmaking. Students will use a variety of tools and media to broaden their experience and encourage experimentation.

This course will satisfy the graduation requirement of one credit of art/music for all students. Completion of this foundation course is a requirement for advanced art electives and for students who are completing a Regents with Advanced Designation in music/art.

**546 BUSINESS ENTREPRENEURSHIP:  
PUTTING IDEAS INTO ACTION**

Grade Level: 8-9  
 Course Length: full year, alternating days  
 Credits: 0.5

In this introductory business course, students learn the basics of planning and launching their own successful business. Whether they want to start their own money-making business or create a non-profit to help others, this course helps students develop the core skills they need to be successful. They learn how to come up with new business ideas, attract investors, market their business, and manage expenses. Students hear inspirational stories of teen entrepreneurs who have turned their ideas into reality, and then they plan and execute their own business.

**810 HOME AND CAREERS 8**

Grade Level: 8  
 Course Length: full year, alternating days  
 Credits: 0.5

Home and Career Skills curriculum is designed to help students establish goals that will enable them to live in a global society of constant change. In this course, students will focus on their present and future responsibilities as family member and community members, consumers, home managers, and wage earners. The goal is to educate early adolescents to think constructively, make sound decisions, solve problems, and manage resources. Units of study include Nutrition and Wellness, Financial Literacy, Building a Positive Digital Footprint, as well as continued College & Career exploration using the Naviance software program.

**875 THE TEENAGE BRAIN**

Grade Level: 8-9  
 Course Length: full year, alternating days  
 Credits: 0.5

In this course, students will study the anatomy and physiology of the brain, and the unique nature of the teenage brain. Students will investigate factors that impact healthy brain development - substance use/abuse, concussions, mental health disorders, stress & anxiety, negative self talk and others. Through an inquiry-based approach, students will research both physical and social/emotional actions that can be taken to support healthy brain development. Students will create a digital-media message targeted towards teens that will serve to build awareness and provide effective strategies teens can use to nurture a healthy brain.

**404 LOTE 8: FRENCH**  
**420 LOTE 8: GERMAN**  
**442 LOTE 8: SPANISH**  
**462 LOTE 8: ASL**

Grade Level: 8  
 Course Length: full year, alternating days  
 Credits: 1.0

Students are offered a continuation of the introductory level course in their chosen language that was begun in Grade 7. At this level, specific emphasis is placed on further development of communicative proficiency in understanding and speaking the foreign language. The proficiency gained in reading, writing, speaking, and listening skills in Grade 7 is broadened and enriched in the target language of the student's choice. Students continue their study of the culture and civilization of the respective countries where the target language is spoken.

Students must complete two years of LOTE study (grade 8 second year) and pass the Checkpoint A Examination at the end of LOTE 8 in order to earn the minimum one (1) unit of LOTE credit required for high school graduation. The two-year sequence is equivalent to a Level I LOTE course.

**809 MUSIC IN OUR DIGITAL LIVES**

Grade Level: 8-9  
Course Length: full year  
Credits: 1.0

Students in this course will chronicle American music history with a focus on the study of multiple music genres through listening, analyzing, and creating original works. Students will engage in music composition and production, while learning music theory and composition techniques, as well as the evolution of music production.

It is designed for students who have an interest in music and who may not be drawn to participating in an ensemble. This course explores the creation of music using an iMac computer with the programs Garage Band and Finale. Students will create digital songs, music of different styles and periods, fundamentals of music, while creating and sharing music in a variety of digital formats and for different applications.

**851 CHORUS 8**

Grade Level: 8  
Course Length: full year, alternating days

Students in 8th grade Chorus will develop healthy vocal technique, learn sight-reading skills, music literacy, and basic music theory while creating and performing three- and four-part choral repertoire in a variety of genres. Engaging in the four artistic processes, students will create, perform, respond to, and connect with music. A minimum of two concert performances will be required for participation in this course. Students who take Chorus 8, may also participate in Band 8 or Orchestra 8 as an elective course.

**852 ORCHESTRA 8**

Grade Level: 8  
Course Length: full year, alternating days

Eighth grade Orchestra is a continuation of seventh grade orchestral studies. Students continue to develop the discipline of consistent practice and the commitment to achieving group goals. Engaging in the four artistic processes, students will create, perform, respond to and connect with music. A minimum of two concert performances will be required for participation in this course. Weekly instrumental lessons are required for participation in this course. Students who take Orchestra 8, may also participate in Chorus 8 as an elective course.

**853 BAND 8**

Grade Level: 8  
Course Length: full year, alternating days

Eighth grade Band is a continuation of seventh grade band instrumental studies. Engaging in the four artistic processes, students will create, perform, respond to, and connect with music. Students continue to develop the discipline of consistent practice and the commitment to achieving group goals while developing the skills to become independent musicians. A minimum of two concert performances will be required for participation in this course. Weekly instrumental lessons are required for participation in this course. Students who take Band 8, may also participate in Chorus 8 as an elective course.

**860 PHYSICAL EDUCATION 8**

Grade Level: 8  
Course Length: full year, alternating days

Physical Education emphasizes physical fitness through a variety of activities to include games, individual and team sports, leisure activities and personal performance activities.

Students will learn proper weight-room etiquette and technique while learning to develop and follow a personal training program. Program will concentrate on improving cardiovascular fitness, muscle strength, and muscle endurance using free weights, resistance training, and core workouts.

**890 TECHNOLOGY 8**

Grade Level: 8  
Course Length: full year, alternating days  
Credits: 0.5

Students will continue to refine their engineering skills as they learn about more advanced tools and processes used to solve problems. Students will continue to develop their proficiency in Computer Aided Design (CAD) software, and other programming languages used in robotics, app design, and advanced manufacturing. An emphasis on 3-D printer technology, CNC machinery, digital electronics, and other innovations will allow students opportunities to expand their problem-solving abilities, and to learn how technological innovations are used to shape and better our world.

**633 STEAM 8 (SCIENCE, TECHNOLOGY,  
ENGINEERING, ARTS & MATH)**

Grade Level: 8

Course Length: full year, alternating days

Credits: 0.5

Students will develop their skills in the use of artistic and technological tools so that they can solve problems related to health, the environment, and the use of Earth's resources. Advanced multimedia tools, design software, and computer programming languages will allow students to create innovative products, apps, media messages, or interactive tools to build awareness or solve local/global issues.

**623 ROBOTICS SYSTEMS 1A**

Grade Level: 8-9

Course Length: full year, alternating days

Credits: 0.5

This course introduces students to the concepts of robotics and automation and the increased use of these systems in a variety of industries. Students will explore the evolution of robotics technology and learn the skills of programming and troubleshooting. Students will engage in the engineering design process as they build and program a robot that can perform different tasks.

**600 PRODUCTION SYSTEMS:  
INTRODUCTION TO TOOLS AND MACHINES**

Grade Level: 8-12

Course Length: one semester

Credits: 0.5

This half-year course provides instruction in the systems of manufacturing and construction. Students engage in the engineering design process and are introduced to the use of hand and power tools to complete hands-on projects. The impact of manufacturing and construction on society, the economy, and the environment is also emphasized.

# 9TH GRADE COURSES

## 013 ELA 9

Grade Level: 9  
Course Length: full year  
Credits: 1.0

How can we face challenges with a positive mindset? That question is the theme that serves as the focus of study in ELA 9. Students will read novels, plays, non-fiction text, and poetry, all with the attention to comprehension, text-based response, vocabulary, and the use of literary devices. Units of study include *The Coming of Age*, *Struggling Through Adversity*, and *Character Development*. There are multiple core texts in this course, including *The Glass Castle*, *Romeo and Juliet*, and *The Odyssey*. Students will have many opportunities to express synthesis of ideas in writing in the form of analysis, essays, and responses to literature.

## 201 ALGEBRA I (R) ❖

Grade Level: 8-12  
Course Length: full year  
Credits: 1.0

Students taking Algebra I will deepen their understanding and use of properties of operations, equality, inequality, real numbers, and scientific notation. Instruction and practice will include writing, solving, and graphing linear, quadratic, absolute value, and exponential functions. Students also will learn about factoring and arithmetic operations with algebraic and radical expressions. In the statistics and probability portion of the course, students will learn how to calculate and then apply concepts in probability, as well as collect, organize, display, analyze, and make predictions from data.

## 217 GEOMETRY (R) ❖

Grade Level: 9-11  
Course Length: full year  
Credits: 1.0

Students taking Geometry will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes, often through the use of a transformation. They will identify and justify, formally and informally, geometric relationships, and apply the ideas of transformation and symmetry to analyze problems. Students will apply their understanding of coordinate geometry and algebra to prove and understand relationships about lines, figures, and transformations. They will extend their understanding of circles to include measures of related angles and segments.

Prerequisite: One credit in Algebra I

## 249 HIGH SCHOOL PREP MATH

Grade Level: 9  
Course Length: full year  
Credits: 1.0

This course is an interesting, engaging, teacher-supported opportunity for students to enhance their understanding of important math skills, and to practice those skills so they will be confident when preparing for future high school math courses. Using 1:1 technology devices, students will review videos, use web-based programs, and take part in online math games to increase their math skills and boost their confidence. In addition to improving knowledge and understanding of core math concepts, students will learn the skills they need to build on in order to complete math courses needed for a Regents Diploma with Advanced Designation.

Prerequisite: Completion of 8th grade math; recommendation by appropriate math teacher required

## 322 BIOLOGY (R) ❖

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

In this course, students study the major understandings and skills correlated to the New York State Core Curriculum Guide for the Living Environment. Units of study include Scientific Method; Genetics and Molecular Biology; Reproduction and Development; Classification and Evolution; Energy, Matter, and Organization; Maintaining a Dynamic Equilibrium; and Understanding the Environment.

Scientific reasoning, written expression, and laboratory skills will be used and assessed as part of the course. Per New York State Education Department regulations, students will be required to successfully complete 1,200 minutes of lab experience with acceptable lab reports in order to take the Living Environment Regents exam given in June of the course year.

## 365 PRINCIPLES OF BIOMEDICAL SCIENCES

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

This is a Project Lead the Way course that introduces students to the growing field of biotechnology. In this course, students will investigate the human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases. A hands-on, problem-based approach will introduce students to human physiology, medicine, research processes, and bioinformatics, while emphasizing engineering principles used to design solutions to problems.

College credit is available at a limited number of institutions and is an option for all students at a reduced tuition rate. To be eligible, students must meet the criteria set by the college, which includes successful completion of both the course and the end of course assessment.

Prerequisite: One credit each in science and Algebra.

**113 GLOBAL HISTORY AND GEOGRAPHY 9 (R)**

Grade Level: 9  
 Course Length: full year  
 Credits: 1.0

In this course, students participate in a chronological history of the world beginning with the Paleolithic Era and the development of the first civilizations, continues with an examination of classical societies, and traces the expansion of trade networks and their global impact. The course emphasizes the key themes of interactions over time, geography, shifts in political power, and the role of belief systems. Throughout the year students examine major concepts including change, imperialism, nationalism, political systems, conflict, justice and human rights. The course emphasizes the importance of historical thinking skills that include gathering, interpreting, and using evidence, chronological reasoning and causation, comparison and contextualization, and geographic reasoning. All of the social studies practices and standards are included in the study of global history and geography.

**114 WORLD HISTORY PRE-AP 9 (H) ❖**

Grade Level: 9  
 Course Length: full year  
 Credits: 1.0

This is part one of a two-year, college-level World History course designed for the advanced 9th and 10th grade history student. It may be taken in place of Global History and Geography 9. It is a course that offers balanced global coverage with Africa, the Americas, Asia, and Europe each represented. The course has as its chronological framework the periods from 8000 B.C.E. (before Common Era) to the present, with the main focus on the era from 8000 B.C.E. to 1500 C.E. In addition to classroom texts, students will read topical and thematic course-related paperbacks. This is a reading- and writing-intensive course that utilizes primary and secondary source analysis and evaluation to develop students' historical knowledge. Writing assignments focus on document analysis and exploration of global themes as well as developing connections between events and geographic regions worldwide. The course workload is college-level and as such will require student dedication to extensive reading, writing, and class preparation. The course includes a summer assignment. A final examination is required.

**702 DIGITAL IMAGING & PHOTOGRAPHY**

Grade Level: 9  
 Course Length: full year  
 Credits: 0.5

Students learn the fundamentals of creating, manipulating, and morphing computer-generated images. Students incorporate hands-on computer training to explore the historical context of artworks that combine digital photography, drawing, painting, and computer graphics. Students learn drawing, painting, photo imaging software programs, as well as traditional fine-art techniques.

Prerequisite: Foundations in Art

**701 FOUNDATIONS IN ART**

Grade Level: 8-9  
 Course Length: full year  
 Credits: 1.0

Students will engage in the four artistic processes (creating, presenting, responding, and connecting) using the Art Elements and Design Principles to create and present works of art. Students will work in 2-D, 3-D, and learn digital art tools. Students will explore a variety of artists, art processes, and materials, such as pencil, watercolor, pastel and printmaking. Students will use a variety of tools and media to broaden their experience and encourage experimentation.

This course will satisfy the graduation requirement of one credit of art/music for all students. Completion of this foundation course is a requirement for advanced art electives and for students who are completing a Regents with Advanced Designation in music/art.

**705 DRAWING & PAINTING I**

Grade Level: 9  
 Course Length: one semester  
 Credits: 0.5

This course teaches students how to use the basic tools, materials, and processes in drawing and painting. Students develop skills in pencil, pen and ink, charcoal, pastel, and a variety of paints while advancing their ability to communicate through the creation of visual images. Students will create, present, respond to, and connect through art using drawing and painting media and processes. Teacher evaluation of the portfolio, as well as the ability to engage in productive critique and self-reflection, is emphasized.

Prerequisite: Foundations in Art

**546 BUSINESS ENTREPRENEURSHIP:  
PUTTING IDEAS INTO ACTION**

Grade Level: 8-9  
 Course Length: full year, alternating days  
 Credits: 0.5

In this introductory business course, students learn the basics of planning and launching their own successful business. Whether they want to start their own money-making business or create a non-profit to help others, this course helps students develop the core skills they need to be successful. They learn how to come up with new business ideas, attract investors, market their business, and manage expenses. Students hear inspirational stories of teen entrepreneurs who have turned their ideas into reality, and then they plan and execute their own business.

**549 PRINCIPLES OF MARKETING**

Grade Level: 9-12  
 Course Length: one semester  
 Credits: 0.5

Students in this course will be introduced to the four decision areas of marketing: product, price, placement, and promotion. Students will understand the psychology and impact of advertising on business and the consumer, buying and selling, and retail store design. Marketing has changed and grown a great deal in the last decade. Many business experts view marketing as one of the most diverse and exciting career areas of the 21st century. Students are encouraged to take this course as a prerequisite to Entertainment Marketing and Sports Management.

**511 COMPUTER APPLICATIONS:  
MASTERING MICROSOFT!**

Grade Level: 9-12  
 Course Length: one semester  
 Credits: 0.5

This course provides in-depth, hands-on experience with the most widely used business software package in the world today, Microsoft Office. Students will gain advanced level skills by completing assignments in Word, Excel, Access, PowerPoint and Outlook. This course provides college bound students the computer proficiency skills essential for entrance into college, as well as the marketable skills necessary to set them apart in a competitive job market. Students will maximize work efficiency by developing touch-keyboarding skills, which are required in almost every career today. Recommended for ALL students (9-12).

We will be offering this course as dual enrollment starting next year.

**875 THE TEENAGE BRAIN**

Grade Level: 8-9  
 Course Length: full year, alternating days  
 Credits: 0.5

In this course, students will study the anatomy and physiology of the brain, and the unique nature of the teenage brain. Students will investigate factors that impact healthy brain development - substance use/abuse, concussions, mental health disorders, stress & anxiety, negative self talk and others. Through an inquiry-based approach, students will research both physical and social/emotional actions that can be taken to support healthy brain development. Students will create a digital-media message targeted towards teens that will serve to build awareness and provide effective strategies teens can use to nurture a healthy brain.

**LEVEL II**

**404 FRENCH ❖**  
**422 GERMAN ❖**  
**444 SPANISH ❖**

Grade Level: 9-12  
 Course Length: full year  
 Credits: 1.0

Level II study of a Language Other Than English increases student vocabulary and speaking skills. At the conclusion of level II, students are expected to be able to describe themselves and their environment, including housing, services, family life, meals, and community at a greater level of proficiency and sophistication. Grammar is expanded, e.g. past tense of verbs, reflexive verbs, adjective agreement, comparatives, and prepositions. Communication skills in the areas of listening, speaking, reading, and writing are emphasized. Students are able to write short letters and reports in present and some past tenses with responses that are comprehensible, appropriate, and detailed. Study also involves cultural understandings respective to each language. A local exam is given at the conclusion of the course.

Prerequisite: One credit in Level I

**464 AMERICAN SIGN LANGUAGE II ❖**

Grade Level: 9-12  
 Course Length: full year  
 Credits: 1.0

Students continue to develop the skills of communicating in American Sign Language using additional "signs" and more complicated communication skills. Additionally, students continue to explore deaf culture in American society. A local exam is given at the conclusion of the course.

Prerequisite: One credit in American Sign Language I

**809 MUSIC IN OUR DIGITAL LIVES**

Grade Level: 8-9  
 Course Length: full year  
 Credits: 1.0

Students in this course will chronicle American music history with a focus on the study of multiple music genres through listening, analyzing, and creating original works. Students will engage in music composition and production, while learning music theory and composition techniques, as well as the evolution of music production.

This course is designed for students who have an interest in music and who may not be drawn to participating in an ensemble. This course explores the creation of music using an iMac computer with the programs Garage Band and Finale. Students will create digital songs, music of different styles and periods, fundamentals of music, while creating and sharing music in a variety of digital formats and for different applications.

**806 CONCERT CHORUS 9**

Grade Level: 9  
 Course Length: full year  
 Credits: 0.5

Senior High Concert Chorus will advance the student's level of vocal technique. Three- and four-part singing, reading music, vocal independence, and intonation will be emphasized. Students will participate in groups to develop rehearsal discipline. Many styles of choral music will be sung. Although no audition is required, students must be willing to participate fully. Progress will be evaluated quarterly. Attendance at all scheduled concerts is mandatory. Concert Chorus is a performance-based course.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

**824 CONCERT ORCHESTRA 9**

Grade Level: 9  
 Course Length: full year  
 Credits: 0.5

The student will learn and perform a variety of music from current and traditional orchestral literature, in addition to creating and responding to the music of a variety of genres. Each student will be expected leave regularly scheduled portions of the school day to attend weekly group lessons. Outside practice will be necessary for students to master their instruments. Technical aspects of playing (vibrato, advanced bowing, and accurate shifting), as well as general knowledge of music (basic theory and history) as it pertains to the selections being performed, will be included. The orchestra director will evaluate student progress at least four times a year. Public performances outside of the school day will be required. Enrollment is open to all string players.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

**802 CONCERT BAND 9**

Grade Level: 9-12  
 Course Length: full year  
 Credits: 0.5

Concert Band is a performing ensemble open to all students with previous band experience. This ensemble will perform music selected from traditional and contemporary band literature, in addition to creating and responding to the music of a variety of genres. Emphasis will be on developing rehearsal skills, music reading, and performance skills. All students are expected to leave regularly scheduled portions of the school day to attend weekly group lessons and to practice independently. Student progress will be evaluated quarterly. Students are required to attend all performances, which include several events held outside of the regular school day. This will include concerts and festivals.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

Prerequisite: Previous band experience

**861 PHYSICAL EDUCATION 9**

Grade Level: 9  
 Course Length: full year, alternating days  
 Credits: .25

Physical Education emphasizes physical fitness through a variety of activities to include games, individual and team sports, leisure activities and personal performance activities.

Students will learn proper weight room etiquette and technique while learning to develop and follow a personal training program. Program will concentrate on improving cardiovascular fitness, muscle strength, and muscle endurance using free weights, resistance training, and core workouts.

**600 PRODUCTION SYSTEMS:  
INTRODUCTION TO TOOLS AND MACHINES**

Grade Level: 8-12  
 Course Length: one semester  
 Credits: 0.5

This half-year course provides instruction in the systems of manufacturing and construction. Students engage in the engineering design process and are introduced to the use of hand and power tools to complete hands-on projects. The impact of manufacturing and construction on society, the economy, and the environment is also emphasized.

**623 ROBOTICS SYSTEMS 1A**

Grade Level: 8-9  
 Course Length: one semester  
 Credits: 0.5

This course introduces students to the concepts of robotics and automation and the increased use of these systems in a variety of industries. Students will explore the evolution of robotics technology and learn the skills of programming and troubleshooting. Students will engage in the engineering design process as they build and program a robot that can perform different tasks.

**611 INTRODUCTION TO ENGINEERING DESIGN**

Grade Level: 9-12  
 Course Length: full year  
 Credits: 1.0

This hands-on course offers students an opportunity to explore the growing field of engineering. The process of problem-solving used by engineers is emphasized as students design products to satisfy a particular consumer need or plan investigations to improve upon designs. Examples of projects include designing solutions for cleaning up an oil spill or developing a tool for making a household chore easier. This course serves as a good foundation for any of the technology or Project Lead the Way courses.

RIT college credit is available. Students must maintain an 85 average in the course and pass an RIT final exam with a minimum grade of 70 to be eligible. The grade on the RIT final will serve as the final course grade on the RIT transcript. Those who qualify receive the credit at no cost.



# Senior High School



James E. Sperry Building

**The following art course will satisfy the required unit of credit in art or music that all students must earn to graduate:**

## **701 FOUNDATIONS IN ART - LEVEL 1**

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

This is a foundation course in the visual arts and a requirement for advanced art electives and for students who are earning their Regents sequence in music/art. Students learn basic skills and techniques in multiple medias, such as: pencil, watercolor, pastel, and printmaking. Students will work in 2-D, 3-D, and digital imaging, and will become familiar with art history. Homework may include sketching, researching, and finding source material. A portfolio for storing art is required. A sketchbook is strongly recommended.

This course will satisfy the graduation requirement of one credit of art/music for all students.

## **Level 2 Courses**

### **702 DIGITAL IMAGING & PHOTOGRAPHY**

Grade Level: 10-12  
Course Length: one semester (Students may take this course in both semesters for 1 credit.)  
Credits: 0.5

This is a foundation course for computer-generated images. Students incorporate hands-on computer training to explore the historical context of artworks that combine digital photography, drawing, painting, computer graphics, and beginning animation techniques. Students learn drawing, painting, photo imaging software programs, and animation approaches, as well as traditional fine-art techniques.

Prerequisite: Foundations in Art

### **705 DRAWING & PAINTING I**

### **706 DRAWING & PAINTING II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course teaches students how to use the basic tools, materials, and processes in drawing and painting. Students develop skills in pencil, pen, and ink, charcoal, pastel, and a variety of paints while advancing their ability to communicate through the creation of visual images. Students will create, present, respond to, and connect through art using drawing and painting media and processes. Teacher evaluation of the portfolio, as well as the ability to engage in productive critique and self-reflection, is emphasized.

Prerequisite: Foundations in Art

### **724 PERSONAL DESIGN FOR HOME & FASHION**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course develops student knowledge and skills for practical use in their home and personal lives. Personal Design for Home & Fashion consists of all aspects of interior and home design and fashion design. Students will study design basics, American architecture, interior design, the history of fashion, fashion design and illustration, textiles and fibers, marketing, and production.

Students develop a collection of personally designed projects in both fashion and interior design. In addition, this course explores career opportunities in fashion, home design, and interior decorating.

Prerequisite: Foundations in Art

### **713 CRAFTS I**

### **714 CRAFTS II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, 3-D art concepts and applications are explored using traditional craft media: fibers, print making, and sculpture. Students learn various techniques, properties, and characteristics related to specific media. This course includes historical and critical analysis of decorative and functional crafts.

Prerequisite: Foundations in Art

### **711 CERAMICS I**

### **712 CERAMICS II**

Grade Level: 10-12  
Course Length: one semester (Students may take this course in both semesters for 1 credit.)  
Credits: 0.5

In this course, 3-D art concepts and applications are explored in clay. Students will shape clay into a variety of 3-D objects. Students work with clay in hand building (pinch, coil, and slab) and on the pottery wheel. This course includes historical and critical analysis of clay vessels.

Prerequisite: Foundations in Art

**715 JEWELRY & METAL CRAFTS I**  
**716 JEWELRY & METAL CRAFTS II**

Grade Level: 10-12  
Course Length: one semester (Students may take this course in both semesters for 1 credit.)  
Credits: 0.5

Students explore many techniques of jewelry making using a variety of metals - copper, brass, nickel, and silver. Emphasis is placed upon creating original designs. Students learn how to form, solder, enamel, and cast metal.

Projects will require work outside of class. The school will furnish most tools and supplies, but the student will have to purchase any sterling silver and stones used.

Additional techniques of stone setting, forging, and further work in casting will be explored in the second level of this course.

Prerequisite: Foundations in Art

**721 ADVANCED DIGITAL IMAGING I**  
**722 ADVANCED DIGITAL IMAGING II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course introduces the methods and materials of digital photography and computer graphics as art-making tools. Students learn to set up and operate various types of electronic image files for display on a web page. Through a series of exercises, students explore the possibilities of digital image manipulation as an expressive artistic medium. The class deals with aspects of image making using digital photography techniques, editing, scanning, graphics, and computer animation. The ability to work both individually and within a group is necessary to successfully complete this class.

Prerequisite: One credit in Digital Imaging and Photography

**727 ANIMATION**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is for students who are interested in digital creation and learning about animation techniques. There will be a focus on different types of 2-D and 3-D animation and the use of technology tools to bridge the divide between digital imaging and animation. Students will continue their work in Illustration and branch out to Flash or similar software. Digital creation in the 4-D (time-based media) will also be explored. Students will learn about the complexity of animation and the difference between code and design, as well as the cohesion that is required in producing animated effects. Students will also learn storytelling/storyboarding, character development, and specialization.

Prerequisite: Foundations in Art (required) and Digital Imaging (preferred)

**725 YEARBOOK**

Grade Level: 10-12 with teacher approval  
Course Length: full year  
Credits: 1.0

This course guides students through the preparation, planning, and production of the annual school yearbook, *The Monarch*. Students will apply their digital and visual literacy skills as they navigate the stages of production, gaining experience in the use of desktop publishing software (Adobe InDesign), photojournalism, copy writing, page design, and cover design. Students will also learn the life skills of productivity and accountability as they begin to appreciate the necessity of adhering to deadlines. This class may be taken more than once for credit.

Prerequisite: Foundations in Art

**719 STUDIO IN GRAPHIC DESIGN I**  
**720 STUDIO IN GRAPHIC DESIGN II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

Students concentrate on the concepts and techniques of two major graphic design areas: commercial art, which includes lettering, advertising, and illustration; and print making, which includes relief printing and digital printing. Assignments include various aspects of production, from the development of a design, to the presentation of the final project.

Assignments are designed to teach specific skills and to strengthen the student's portfolio for college applications. There may be a minimal cost for supplies.

Prerequisite: Foundations in Art

**707 ADVANCED STUDIO IN ART - LEVEL 3**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

In this course, students explore design problems using media and subject matter chosen in conjunction with the teacher. Examples include self-portraits, figures, still life, and object drawings. Students learn about careers in the visual arts and hear presentations on college art programs. Some research work will be assigned, and projects will take additional work beyond class time. The student must complete a portfolio containing at least eight finished pieces of artwork. This class is excellent preparation for Studio Drawing/Painting (AP).

Prerequisite: Foundations in Art and Drawing and Painting

**723 PORTFOLIO PREPARATION - LEVEL 3 & 4**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is designed to encourage and help students organize and perfect their artistic and communication skills. It involves the production, collection, preparation, and presentation of his/her best art works in both original and digital formats. The art portfolio can be important for admission to post-high school study, scholarship applications, and job market competition. The course will help students determine strengths and interests, and assist in applying this knowledge to the selection of a career. It is intended for junior and senior art or architecture majors.

Recommended: Concurrent enrollment in Advanced Studio in Art and Studio Drawing/Painting (AP).

**708 STUDIO DRAWING/PAINTING (AP) - LEVEL 4**

Grade Level: 12  
Course Length: full year  
Credits: 1.0

This college-level course addresses advanced concepts in drawing, color, design, and painting. While the production of art is the primary focus of the class, there is a strong emphasis on critical and analytical thinking. Three portfolio options are offered simultaneously: Drawing, 2-D Design, and 3-D Design. The course culminates with each student preparing and sending his/her portfolio to the Advanced Placement Program of the College Board in Princeton, New Jersey, for review and possible college credit. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Recommended: Two credits in art, portfolio review, and recommendation of the AP teacher

**709 ART HISTORY (AP) - LEVEL 4**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This college-level course challenges students with advanced concepts in critical thinking and writing about the history of art. An extensive amount of reading and writing using Gardner's Art Through The Ages is required. Study will commence with pre-history and conclude with art movements in the 21st century. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

This course will be offered in the 2018-2019 school year.

**Students who are serious about a pathway in the Arts should consider taking both semesters of a Level 2 or 3 course. Classes may be taken multiple times for credit as Independent Study (see page 1).**

# BUSINESS

## 160 LEADERSHIP IN ACTION

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will experience the true meaning of leadership. Students will research leaders in our community and the world, and will develop their own style of leadership through hands-on activities. The course allows student-directed time for learning, planning, coordinating, and evaluating school and community projects. This course will also focus on communication skills, self-awareness, self-esteem, stress management, human relations, team building, and meeting skills.

## 501 CAREER AND COLLEGE PLANNING SEMINAR

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will learn strategies and skills necessary to prepare for college and the world of work through an exploration of the following topics: setting academic goals, time management and organization, post-secondary training opportunities, internship and cooperative education opportunities, college selection, choosing a major, financial aid and scholarships, study skills, college essay writing, resume development, career selection, interviewing skills, and 21st-century skills required for success in the workplace. Throughout the course, students will use critical thinking skills to make informed choices, to understand their responsibilities for college and career success, and to become independent and motivated learners.

This course is recommended for all students to prepare them with strategies and skills necessary for a successful college experience and career.

## 504 ENTERTAINMENT MARKETING

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will examine the market-driven entertainment industry. Students will learn about marketing functions and how those functions are applied to the entertainment industry, as well as current trends and other challenges facing the entertainment industry. Particular focus will be on the music industry, the fashion industry, and the sports industry. This course will examine how marketing strategies are applied in an environment of changing public tastes, and the impact of technology on the marketing of these industries. Students will have the opportunity to explore a variety of business careers in the fields of music, fashion, and sports.

Recommended: Principles of Marketing

## 505 SPORTS MANAGEMENT

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is designed for students who would like to pursue a career in the sports industry. Students will learn how teams operate within today's dynamic business world. Management principles are discussed during the exploration of topics such as collective bargaining, contracts, sports law, people and information management, facility management, sports finance, and accounting. Students will analyze various teams and leagues, and create their own teams by applying sports management principles they have learned.

Recommended: Principles of Marketing

## 507 ADVERTISING AND MEDIA RELATIONS

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will learn the effectiveness of advertising in business and society. Topics include the power of advertising, the consumer market, election of media, use of advertising, and connecting a message to the audience. Students will create an advertising campaign that will be evaluated by professionals in the advertising industry.

## 509 CAREER EXPLORATION INTERNSHIP PROGRAM

Grade Level: 10-12  
Course Length: 27 hours / 54 hours / 108 hours  
Credits: 0.25 / 0.5 / 1.0

This course is a component of the Work-based Learning Program and provides high school students the opportunity to obtain non-paid, on-site career exploration experiences. While the focus of the program is meaningful, hands-on career exploration, a classroom component is required. Students may earn the following credit toward graduation: 1/4 unit of credit for 27 completed hours; 1/2 unit of credit for 54 completed hours; or 1 unit of credit for 108 completed hours. This program is registered with the New York State Education Department.

**511 COMPUTER APPLICATIONS:  
MASTERING MICROSOFT!**

Grade Level: 9-12  
Course Length: one semester  
Credits: 0.5

This course provides in-depth, hands-on experience with the most widely used business software package in the world today, Microsoft Office. Students will gain advanced-level skills by completing assignments in Word, Excel, Access, PowerPoint and Outlook. This course provides college bound students the computer proficiency skills essential for entrance into college, as well as the marketable skills necessary to set them apart in a competitive job market. Students will maximize work efficiency by developing touch-keyboarding skills, which are required in almost every career today. Recommended for ALL students (9-12).

We will be offering this course as dual enrollment starting next year.

**544 ACCOUNTING**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

In this course, students will develop an understanding of the concepts and principles of financial accounting for the business enterprise. Analysis of business transactions, double-entry techniques for recording transactions, the accounting cycle, measurement of net income, and the preparation of financial statements are emphasized. Online resources supplement the curriculum, and realism is created through the use of case studies and computer accounting software. Accounting provides students with an excellent background for college business courses including accounting, business administration, management, finance, and law.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

**549 PRINCIPLES OF MARKETING**

Grade Level: 9-12  
Course Length: one semester  
Credits: 0.5

Students in this course will be introduced to the four decision areas of marketing: product, price, placement, and promotion. Students will understand the psychology and impact of advertising on business and the consumer, buying and selling, and retail store design. Marketing has changed and grown a great deal in the last decade. Many business experts view marketing as one of the most diverse and exciting career areas of the 21st century. Students are encouraged to take this course as a prerequisite to Entertainment Marketing and Sports Management.

**550 BUSINESS OWNERSHIP AND MANAGEMENT**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course will address topics in finance, marketing, economics, management, and sales. Activities are designed to encourage innovative thinking related to new products, services, demographics, technology, and community needs. Students will take away true-life business experiences that will make them better consumers, as well as business entrepreneurs. This course is highly recommended for students enrolled in EMCC courses.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

**595 BUSINESS LAW**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Students in this class will gain a greater understanding and appreciation of their legal rights and responsibilities. This course presents law from the practical, useful approach as it applies to everyday, real-life situations. Some of the topics studied include our court systems, the impact of ethics on our laws and decisions, family law, criminal and civil law, tax law, estate planning, and contract law. Along with these topics, students examine and discuss student rights, consumer law, negligence law, and historical cases. A variety of relevant videos and activities are used to reinforce classroom learning.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

**695 FINANCIAL LITERACY**

Grade Level: 10-12

Course Length: one semester

Credits: 0.5

Students in this class will develop their money management and financial planning skills to establish good credit, manage debt, and learn how to save for the future.

Topics include:

- Creating a personal financial plan
- Credit and debt management
- Career, lifestyle, and finances
- Developing a personal budget
- Personal insurance
- Investment planning and financial services

**699 COOPERATIVE WORK EXPERIENCE**

Grade Level: 11-12

Course Length: full year (300 hours);  
one semester (150 hours)

Credits: 1.0 (full year); 0.5 (half year)

This course provides students with valuable on-the-job training. To receive credit, students must work an average of ten hours per week during the school year and earn a passing grade in the related seminar class. Participants will earn one-half credit for 150 hours of work or one credit for 300 hours of work. Pay stubs must be submitted weekly. This course may be taken for credit more than once.

Requirements:

1. Successful completion of Career Exploration Internship Program.
2. Approval by work-based learning teacher.
3. Working papers for students under 18 years of age.
4. Successful participation in the all course components.

Seminars include career guidance, obtaining a job, advancing in a career, job practices and human relations, job regulations and legislation.

# ENGLISH LANGUAGE ARTS

Students are required to earn four credits in English and to pass the New York State Comprehensive Examination in English, usually taken in June of the junior year. **SUMMER READING ASSIGNMENTS ARE A COMPONENT OF ALL ENGLISH COURSES.**

## **023 ENGLISH 10 (R) ❖**

Grade Level: 10  
Course Length: full year  
Credits: 1.0

The theme that serves as the focus for this course is “Human Responsibility.” Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, critical thinking, and literary devices. Units of study include “Foundational Skills In English,” “Integrity and Professional Responsibility,” and “Human Rights,” with several core texts embedded, including *The Palace Thief*, *Macbeth*, and *Behind The Beautiful Forevers*. A focus on writing a well-organized, research-based composition and a responsive, coherent literature essay will be a priority. Speaking and listening skills will be strengthened.

## **024 ENGLISH 10 (H) ❖**

Grade Level: 10  
Course Length: full year  
Credits: 1.0

The honors-level course is for students who have a strong interest in a scholarly approach to English and who enjoy a challenging study of reading and writing. In this course, the students will engage in some areas of study similar to English 10 (R), but in greater depth and complexity with a strong pursuit of learning and independence. The theme that serves as the focus for this course is “Human Responsibility.” Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, critical thinking, literary devices, and deep analysis. Units of study include “Foundational Skills Of English,” “Integrity and Professional Responsibility,” and “Human Rights,” with several core texts embedded, including *The Palace Thief*, *Macbeth*, and *Behind The Beautiful Forevers*. A focus on writing a well-organized literary analysis composition and an informational research piece will be included.

## **032 ENGLISH 11 (R) ❖**

Grade Level: 11  
Course Length: full year  
Credits: 1.0

Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, critical thinking, and literary devices. Units of study consist of a comprehensive selection of core texts including, “My Last Duchess,” *Hamlet*, and *A Room Of One’s Own*. A focus on writing a well-organized research-based composition and a responsive, coherent literature essay will be a priority. Speaking and listening skills will be strengthened. At the end of the year, students will take the New York State Comprehensive Regents Exam in English. This exam evaluates students in four areas: listening, vocabulary, reading comprehension, and writing. This course provides ongoing reinforcement of these skills.

## **043 ENGLISH 12 (R) ❖**

Grade Level: 12  
Course Length: full year  
Credits: 1.0

Senior English is comprised of two one-semester courses. Credit is awarded upon successful completion of one reading component and one writing and research component.

Reading Component (1/2 credit): Both courses are reading-intensive, multi-genre approaches to literature that examine how various elements shape the way we read and interpret texts including structure, narrative voice, character development, historical and political contexts, and reader response. Students will continue to develop skills in critical thinking, clear communication, and effective composition. Assessments consist of discussion, projects, creative assignments, and short response papers.

Writing and Research Component (1/2 credit): Both courses are writing and research intensive, providing students with opportunities to analyze and critique various forms of written and oral expression, while improving their own ability to communicate effectively. Assessments consist of discussion, short creative assignments, and an extensive research component, the senior thesis.

Choose one reading component:

[01] **Contemporary Literature:** This course is for students who are interested in contemporary forms of literary expression produced after 1950. Whole-class and independent readings are responsive to student interests and will focus on issues, topics, and themes experienced in society today. In addition, students will learn to critically read and analyze an expanded definition of text including print and non-print forms. Titles may include: *One Flew Over the Cuckoo's Nest*, *The Handmaid's Tale*, *The Lovely Bones*, and *The Things They Carried*.

[03] **Rediscovering the Classics:** This course is for students who are interested in classical texts produced before 1950. Using a chronological approach to survey various forms of literary expression from the first oral stories up to works produced in the mid-twentieth century, students will explore universal and timeless questions that humanity has pondered. In addition, students will examine film as a text for presenting values, passions, and conflicts coinciding with classical literature. Titles may include: *Beowulf*, *Othello*, *Merchant of Venice*, *Frankenstein*, and *The Scarlet Letter*.

Choose one writing and research component:

[02] **Style and Expression:** This course is for students who are interested in stimulating their thinking through different modes of expression including spoken and written forms of communication. Students will examine and analyze how language shapes our understanding of the world. Texts will be determined as the course evolves, though students should expect a sampling of poetry, short stories, and memoirs/essays. Using various technologies to produce and present multi-media assignments, students will improve their communication skills in academic, work, social, and creative contexts.

[04] **Rhetorical Analysis:** This course is designed to help students improve their skills of analysis and argument as they make meaning from numerous, often-disparate sources, to communicate with new and recent technologies, and to read and write a variety of texts and genres. Students will explore the social, historical, and political implications of various texts: how information can shape our understanding of reality, perpetuate or alter stereotypes, and reinforce or undermine cultural barriers. Students will think critically about arguments, synthesize ideas from various texts, write with an effective style and voice, undertake independent research, and use a variety of strategies to communicate with others. Course topics may include Developing Critical Literacy, Culture and Ideology, Technology and Communication, and Media Representation.

#### 048 LANGUAGE AND COMPOSITION (AP) ❖

Grade Level: 11-12

Course Length: full year

Credits: 1.0

This college-level course is designed to train students to become skilled readers of prose in a variety of periods, disciplines, and rhetorical contexts. The course will give students the practice and helpful criticism necessary to make them flexible writers, able to compose in a variety of modes and for a variety of purposes. Writing assignments contribute to the aim of making students a mature writers, able to write competently in all college courses. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

#### 046 LITERATURE AND COMPOSITION (AP) ❖

Grade Level: 11-12

Course Length: full year

Credits: 1.0

This college-level course engages students in the careful reading and critical analysis of imaginative literature. Students develop critical standards for interpreting the effects writers create by means of the artful manipulation of language. Writing, an integral part of the course, focuses on the critical analysis of literature, as well as students' creative writing, to sharpen understanding of literature, deepen appreciation of literary artistry, and develop the student's own voice. Knowledge of basic language skills is assumed. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

#### 062 PUBLIC SPEAKING ❖

Grade Level: 10-12

Course Length: one semester

Credits: 0.5

This course is for the student who wants to develop speaking ability in front of a group of people by practicing preparation and delivery, reasoning skills, listening, and critical thinking skills. Students will deliver speeches and critique others' presentations; above all, they will develop poise and self-confidence. The student will actively engage in a variety of speech-related activities to prepare for successful speech presentations. Some speech types may include demonstrative, stand-up comedy, process, debate, and oral interpretation. This elective course may be taken for a second time with teacher permission.

**067 CREATIVE WRITING ❖**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

The creative writing course offers students the opportunity to read and write a variety of texts in a number of genres. Students will participate in all aspects of the writing process, from free-writing and invention, to planning and drafting, to revising and editing their pieces for publication. Students will share their work both in print and orally, creating their poems, short stories, vignettes, personal narratives, and essays for specified audiences. This elective course may be taken for a second time with teacher permission.

**070 THEATRE**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

The theatre course is designed to introduce students to the work of the stage, providing an overview of the history and styles of theatre, acting and direction, scenic and lighting design, and textual analysis. Students will engage in a variety of activities aimed at increasing their knowledge of the purposes of theatre, and exploring the relationships between the actor, director, designer, and the text. Students will watch and respond to theatrical performances and analyze their experience as audience members. Finally, students will explore their own understanding of the stage through performance, writing, and design activities. This elective course may be taken for a second time with teacher permission.

**071 CLASSICAL CIVILIZATIONS:  
MYTHS AND LEGENDS ❖**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is an introduction to the fascinating world of classical civilizations, the cornerstone of western culture. Students can expect to be introduced to the mythological, military, political, cultural, and literary attributes of ancient Greece and Rome. Students will read classical literature beginning with *The Legend of the House of Atreus*, and continuing with *The Orestia Trilogy*, *The Theban Trilogy*, and *Medea*. A survey of world myths will follow. Journal writing, discussion, and “hands-on” activities can also be expected. This elective course may not be taken for credit more than once.

**073 CINEMATIC LITERACY**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

Cinematic Literacy is a survey film course that attempts to provide the connection between informal movie appreciation and a more scholarly understanding of film, by looking at the history of the cinema from the earliest movies through those of the present day. The course is focused on developing a foundational competency of film history and methodology. To this end, cinematic literacy takes a chronological approach to introducing the basics of film language, exposition, and interpretation used for personal, analytical, and evaluative response and formal criticism. The historic significance, technological innovations, and cultural impact of movies are revealed through the study of genres such as silent films, comedies, musicals, melodramas, suspense films, and epics. This is further enhanced by discussion and exposition of the work of directors such as Frank Capra, Billy Wilder, Alfred Hitchcock, Steven Spielberg, and Francis Ford Coppola. This elective course may not be taken for credit more than once.

# FAMILY AND CONSUMER SCIENCE

## **668 CHILD AND ADULT DEVELOPMENT**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Child and adult development is designed to help students become more competent, confident, and caring in managing their work, family, and community lives. It allows students to develop the process skills of communication, leadership, and problem-solving while exploring the dynamics of various types of relationships in the workplace and at home. This course offers a foundation for further studies in education and related fields.

## **660 INTRODUCTION TO FOODS AND NUTRITION**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course is taught using a hands-on, experiential approach in a laboratory setting. Students will develop knowledge and skills associated with making healthy nutritional choices that can enhance their longevity, as well as the quality of their lives. Food preparation techniques, aspects of the food industry, and career possibilities will also be emphasized.

## **673 FOOD SCIENCE**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course engages students in the exploration of the science behind the food that we eat. How does the human body use carbohydrates and proteins? Why are vitamin supplements sometimes necessary? What do farmers and manufacturers consider when handling food as it travels from the ground to our dinner tables? What role does technology play in helping to provide people around the world with safe, healthy food choices? Students will participate in hands-on laboratory activities and apply basic scientific principles to explore these and other questions. This would be a good course for students who are considering health science or nutrition-related careers. Students may receive either Science or Family & Consumer Science credit.

# HEALTH

## 881 HIGH SCHOOL HEALTH

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is required for graduation. Students gain an understanding of the various factors that affect health and how to maintain and promote one's own wellness. The course focuses on safety, CPR, first aid, and survival; human growth and development; emotional health and interpersonal relationships; substance use and abuse; and community health and diseases. A particular emphasis is placed on developing skills for personal health in the areas of decision making, planning, goal setting, communication, and stress management. Other current health issues are included, depending upon current events and student interest.

## 884 WOMEN'S HEALTH & WELLNESS

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course provides male and female students an opportunity to study women's health and wellness topics. Course topics include History of Women's Health, Women's Social Movement, Developing a Healthy Lifestyle, Transitions, Relationships and Family Roles, Self-Esteem and Self-Image, Stress Management, Social and Cultural Influences, and Violence and Abuse. As a continuation of the topics explored in the required health course, emphasis is placed on developing skills for personal health in the areas of decision making, planning, goal setting, communication, and stress management.

Prerequisite: 1/2 credit of Health

## 883 DEATH AND DYING

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course provides students an opportunity to study aging, the death and dying process, and the influence that society, cultural values, rituals, and policies have on individuals during aging and death. The following course topics are studied: Understanding the Experience of Loss, Attitudes Toward Death, Death in the Lives of Children, Death in the Lives of Adults, Life Threatening Illnesses, End-of-Life Decisions, Suicide, and Death in the Modern World. As a continuation of the topics explored in the required health course, emphasis is placed on developing skills for personal health in the areas of decision making, planning, goal setting, communication, and stress management.

Prerequisite: 1/2 credit of Health

# LANGUAGES OTHER THAN ENGLISH

## LEVEL I

### 442 SPANISH ❖

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

Students learn to understand and express simple statements and questions in the second language. Communication skills in listening, speaking, reading, and writing are developed. Students engage in activities to build cultural understanding of world regions speaking the target language. At the conclusion of this course, students will be able to understand informational bulletins, engage in basic everyday conversation with peers and adults, read short announcements or advertisements, and write informal notes. This is designed as an introductory course for those students who have not studied the language before. A local exam is given at the conclusion of the course.

## LEVEL II

### 404 FRENCH ❖

### 422 GERMAN ❖

### 444 SPANISH ❖

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

Level II study of a Language Other Than English increases student vocabulary and speaking skills. At the conclusion of level II, students are expected to be able to describe themselves and their environment, including housing, services, family life, meals, and community, at a greater level of proficiency and sophistication. Grammar is expanded, for example past tense of verbs, reflexive verbs, adjective agreement, comparatives, and prepositions. Communication skills in the areas of listening, speaking, reading, and writing are emphasized. Students are able to write short letters and reports in present and some past tenses with responses that are comprehensible, appropriate, and detailed. Study also involves cultural understandings respective to each language. A local exam is given at the conclusion of the course.

Prerequisite: One credit in Level I

## LEVEL III

### 406 FRENCH ❖

### 424 GERMAN ❖

### 446 SPANISH ❖

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Level III prepares students taking French, German, and Spanish for the Comprehensive LOTE Level III Final Exam (Checkpoint B). These exams will be administered at the end of the year. Students are expected to understand and express themselves in more complex conversations and narratives than previous levels. Authentic materials such as newspaper articles, oral recordings, videos, and short narratives are incorporated into instruction. Students gain a deeper understanding of the specific language-related cultures.

Prerequisite: One credit in Level II

## LEVEL IV

### 408 FRENCH (H) ❖

### 426 GERMAN (H) ❖

### 448 SPANISH (H) ❖

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Students continue to develop their understanding of the target culture and competence in the four skills of listening, speaking, reading, and writing in this honors-level class. Oral self-expression is improved through class discussion, demonstrations, and technology-based projects. Group discussions, readings, and other activities explore such areas as literature, art, culture, and customs. Brief reports, as well as creative writing assignments, help the students acquire a more sophisticated level of written expression in the language. A final exam is given at the conclusion of the course.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: One credit in Level III

### LEVEL V

#### 410 FRENCH (H) ❖

#### 428 GERMAN (H) ❖

#### 450 SPANISH (H) ❖

Grade Level: 10-12

Course Length: full year

Credits: 1.0

In this honors-level class, students will increase their fluency in speaking, reading, and writing in their target language. Through consistent use of the target language, students will also deepen their command of vocabulary, idioms, and deepen their appreciation of the specific culture they are studying. Selections are read from classical and contemporary literature as well as current publications. During the year, students prepare oral and written projects based on cultural and literary themes. A final exam is given at the conclusion of the course.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: One credit in Level IV

#### 464 AMERICAN SIGN LANGUAGE II ❖

Grade Level: 9-12

Course Length: full year

Credits: 1.0

Students continue to develop the skills of communicating in American Sign Language using additional “signs” and more complicated communication skills. Additionally, students continue to explore deaf culture in American society. A local exam is given at the conclusion of the course.

Prerequisite: One credit in American Sign Language I

#### 466 AMERICAN SIGN LANGUAGE III ❖

Grade Level: 10-12

Course Length: full year

Credits: 1.0

Level III prepares students taking ASL for the Comprehensive Level III Final Exam (Checkpoint B). This exam will be administered at the end of the year. Students continue to develop the skills for communicating in American Sign Language by learning multiple meanings for “signs” previously presented. They also participate in more interactive dialogues. The study of deaf culture and history is expanded.

A Comprehensive Level III ASL Final Exam (Checkpoint B) will be administered at the completion of this course.

Prerequisite: One credit in American Sign Language II

#### 470 FOREIGN STUDY SEMINAR

Grade Level: 10-12

Course Length: one semester

Credits: 0.5

Foreign travel and student exchanges are an extension of classroom instruction for students enrolled in LOTE classes. To participate in a foreign trip or student exchange, you must:

- Be enrolled in the language for which the trip/exchange is planned during the academic year of the trip/exchange.
- Complete all requirements of the Foreign Study Seminar.

This seminar meets after school on a scheduled basis during the academic year of the study-travel experience.

Prerequisite: Recommendation by appropriate language teacher and administrator

Co-requisite: Must be enrolled in an appropriate LOTE course

#### 467 AMERICAN SIGN LANGUAGE IV ❖

Grade Level: 10-12

Course Length: full year

Credits: 1.0

Students continue to develop their understanding of the Deaf culture and competence in their receptive and expressive skills in American Sign Language. Students will further develop conversational skills, expand their ability to communicate with greater fluency, and increase confidence in the use of vocabulary, grammatical structures and idiomatic expressions. In addition, students will develop a broader understanding of the culture and diversity within the Deaf community. Students will engage in extended discussions and enhance their visual storytelling skills about current events and everyday topics. Students will build on their knowledge of different patterns of interaction and will integrate this knowledge when expressing themselves and when interpreting the language of others. A final exam is given at the conclusion of this course.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: One credit in Level III American Sign Language

# MATHEMATICS

## 201 ALGEBRA I (R) ❖

Grade Level: 8-12  
Course Length: full year  
Credits: 1.0

In Algebra I, students will deepen their understanding and use of properties of operations, equality, inequality, real numbers, and scientific notation. Instruction and practice will include writing, solving, and graphing linear, quadratic, absolute value, and exponential functions; factoring; and arithmetic operations with algebraic and radical expressions. In the statistics and probability strand, students will learn how to calculate and then apply concepts in probability as well as collect, organize, display, analyze, and make predictions from data.

## 217 GEOMETRY (R) ❖

Grade Level: 9-11  
Course Length: full year  
Credits: 1.0

In this Geometry course aligned to the Common Core standards, students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes, often through the use of a transformation. They will identify and justify, formally and informally, geometric relationships and apply the ideas of transformation and symmetry to analyze problems. Students will apply their understanding of coordinate geometry and algebra to prove and understand relationships about lines, figures, and transformations. They will extend their understanding of circles to include measures of related angles and segments.

Prerequisite: One credit in Algebra I

## 221 ALGEBRA II (R) ❖

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

In Algebra II, students will represent, analyze, and solve a variety of problems algebraically. They will use algebra to recognize, use, and represent patterns, relations, and functions. They will collect, organize, display, analyze, and make predictions from data. In trigonometry, they will learn to use trigonometric graphs, equations, and identities to solve theoretical and practical problems. A deeper and more complex understanding and application of concepts of probability are included in the standards for this course.

Prerequisite: One credit in Algebra I and one credit in Geometry

## 208 MATH EXPLORATIONS ❖

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

The goal of this course is to develop and maintain math knowledge and build upon concepts learned in other math courses. The primary curriculum resource is a college math textbook. Students will acquire an overview of a variety of mathematical concepts, be able to communicate about them, and apply them to solve problems. In Math Explorations there are group activities, expectations for writing about math, and assignments inside and outside of class. Topics include problem-solving strategies, writing equations, and modeling situations mathematically. Investigating numeration systems, number theory, encryption, statistics and probability add variety and pique interest in unfamiliar applications of mathematics. Students use calculators as problem-solving tools.

Students will also review arithmetic and algebra topics in preparation for advanced algebra and placement exams often required for post-high school learning.

Prerequisite: Two credits in math and passing an Algebra Regents exam

## 508 MATH AND FINANCIAL APPLICATIONS

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

In this course, students will learn about the mathematics involved in both personal and business finance. Topics related to personal and business finances include interest, creating formulas, budgeting/depreciation, loans/banking, annuities, credit, investments, and financial statements.

Students will also review arithmetic and algebra topics in preparation for placement exams often required for post-high school learning.

Prerequisite: Two credits in math and passing an Algebra Regents exam

## 231 PRE-CALCULUS ❖

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This year-long course will prepare students for the study of calculus. Topics include advanced algebraic techniques, the algebra of functions, polynomial equations, limits of sequences and functions, properties of the graphs of polynomial and rational functions, along with polar equations. The use of the graphing calculator is integrated throughout the course.

This curriculum prepares students for the Advanced Placement Calculus course in high school or for college course work in Calculus.

Prerequisite: One credit in Algebra II

**237 CALCULUS AB (AP) ❖**

Grade Level: 12  
Course Length: full year  
Credits: 1.0

For students planning a STEM career, AP Calculus could be an appropriate choice for math elective credit. Students learn beginning differential and integral calculus. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May. A graphing calculator is required.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: One credit in Pre-Calculus

**239 APPLIED STATISTICS**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

The Applied Statistics course will introduce students to the major concepts and tools that are used during a statistical analysis: collecting, understanding and drawing conclusions from data. Students will be involved in the process of gathering and analyzing data while engaging in authentic learning tasks. Students will extend their understanding of statistical measures through an introduction to concepts of probability. This course is open to all students who have an interest in learning and using statistics.

Prerequisite: One credit in Algebra II

**238 STATISTICS (AP) ❖**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

In our technological, statistical world, statistics is one of the most practical and useful areas of mathematical study. This course will provide students who intend to enter any career with a useful, applicable understanding of statistical tools. Students will increase their knowledge base and skill in the use of statistics as a tool to collect, analyze, understand, and draw conclusions from data. Four broad themes encompass the learning:

- Exploring data: describing patterns and departures from patterns.
- Sampling and experimentation: planning and conducting a study.
- Anticipation of patterns: exploring random phenomena using probability and simulation.
- Inference: estimating population parameters and testing hypotheses.

The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: One credit in Algebra II

**228 COLLEGE PREP MATH**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This course is designed for students who would like the opportunity to further prepare for credit-bearing college courses or career preparation programs and successfully complete them. Students complete a required set of online modules at their own pace. They work with their teacher during class on activities that show them how the math they have learned can be used. Students whose plans require taking the College Board Accuplacer® will take that assessment during the course. In addition to improving knowledge and understanding of those core math concepts, students will learn about the math needed for college and different careers through online sites and presentations about the math people need and use in their work.

Prerequisite: Two credits in math and passing an Algebra Regents exam

# MUSIC

## **710 WORLD MUSIC IN OUR LIVES**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

World Music In Our Lives is an exciting course designed for students who have a true and sincere interest in all types of music, especially the music of different world cultures. It is best suited for those who enjoy delving into the larger, more in-depth world of music. This course offers a comprehensive overview and travelogue through the music of many different cultures via hands-on experiences: playing instruments, composing, movement, active listening, and written reflection. No prior musical experience is necessary.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

## **808 PIANO IN OUR LIVES**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This is a beginning course in the technique and art of playing the piano. The student will develop piano technique and learn to read standard piano literature, as well as develop skills in playing by ear. A wide variety of styles and periods of music will be incorporated into this exciting course — everything from Bach to rock. Class activities will include unique group and individual assignments based on the ability level of each student, with an emphasis on performance. A minimum of 20 minutes per class will be dedicated to practicing the new techniques and skills learned in each class.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

## **819 MUSIC THEORY I**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course is designed to help students develop musical knowledge and skills in the areas of ear training, music reading, sight-reading, composing, and improvisation. In addition, students will gain a more meaningful understanding of the elements used to create music through various activities, including composing, improvising, performing on various instruments, singing, moving creatively, and reading music. Prior musical knowledge is helpful, but not essential. Any student interested in pursuing a career in music should take this class to help prepare for college auditions and music courses.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

## **821 MUSIC THEORY II**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Students will continue to explore the essential elements of music, but on a more sophisticated level. They will explore different methods of musical composition and have the opportunity to hear their creations performed. The course will culminate with the annual Student Composer's Forum at the end of the school year. Homework is assigned and keyboards are made available to the students.

Prerequisite: One credit in Music Theory I

## **823 MUSIC THEORY III**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This class is a continuation of the Music Theory sequence placing emphasis on composition, analysis, and ear-training. Students will create a portfolio of eight different compositions in contrasting styles, utilizing advanced theory concepts. Integration of technology, improvisation, and performance occurs throughout the course. All Theory III students will participate in the annual Student Composer's Forum.

Prerequisite: One credit each in Music Theory I and II

## **803 SYMPHONIC BAND**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Symphonic Band is the advanced band instrumental ensemble. Students are expected to learn and perform a variety of advanced literature. Emphasis will be on developing the technical skills necessary to perform music at this level. Sectionals and lessons will be held outside of the regular class time in order to prepare music for performance and encourage technical growth. Both independent practice and leaving regularly scheduled portions of the school day for weekly lesson attendance are mandatory. Student progress will be evaluated quarterly. Students are required to attend all performances, which will include several events held outside of the school day. This will include concerts and festivals.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

Prerequisite: Audition (held in spring of the previous school year; students new to the district may audition prior to the first day of school, depending on the availability of a position in the group) and/or consent of the conductor.

**801 MIXED CHORUS**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Senior High Concert Chorus will advance the student's level of vocal technique. Three- and four-part singing, reading music, vocal independence, and intonation will be emphasized. Students will participate in groups to develop rehearsal discipline. Many styles of choral music will be sung. Although no audition is required, students must be willing to participate fully, and progress will be evaluated quarterly. Attendance at all scheduled concerts is mandatory. Concert Chorus is a performance-based course.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

**807 R-H SINGERS**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

R-H Singers is a select choral group that performs choral music with 4 to 8 vocal parts. Because of this more difficult level of music, students must be able to read music, as well as make a firm commitment to leave regularly scheduled portions of the school day for lessons and vocal coaching outside the scheduled block rehearsal. Tone quality, technique, intonation, diction, accuracy, and expressive interpretation are areas of emphasis. The R-H Singers perform, compete, and travel on a regular basis, and are evaluated eight times yearly. Parental involvement in the Friends of the R-H Singers activities is highly encouraged.

Prerequisite: Audition (held in April of the previous school year; students new to the district may audition prior to the first day of school, depending on the availability of a position in the group) and/or consent of the conductor.

**825 SYMPHONIC ORCHESTRA**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Students will learn and perform a wide variety of advanced literature. Each student will be expected to know his/her part and leave regularly scheduled portions of the school day to attend weekly group lessons. Outside practice will be necessary. Technical aspects of playing (vibrato, advanced bowing, and accurate shifting), as well as general knowledge of music (basic theory and history) as it pertains to the selections being performed, will be included. The orchestra director will evaluate student progress at least four times a year. The Symphonic Orchestra will be comprised primarily of upperclass students, but underclass students will be considered based upon performance ability and instrumentation needs. Public performances outside the school day will be required.

This course satisfies the Regents graduation requirement of one year of high school art and/or music.

Prerequisite: Audition (held in spring of the previous school year; students new to the district may audition prior to the first day of school, depending on the availability of a position in the group) and/or consent of the conductor.

**826 JAZZ ENSEMBLE**

Grade Level: 10-12; Concert Band/Symphonic Band members (as well as bass and guitar students)  
Course Length: full year; two days per week  
Credits: 0.5

Students will learn and perform a variety of music genres. Each student will be expected to know his/her part. Outside practice will be necessary. Occasional public performances outside of the normal school day will be required. Rehearsals take place outside of the school day. Private instrumental music lessons are highly recommended.

Prerequisite: Audition (held early in September)

**828 SPECTRUM SINGERS**

Grade Level: 10-12; Open to R-H Singers only

Course Length: full year; 2 days per week or  
one semester; 2 days per week

Credits: 0.5 or 0.25

This 20–24 voice choral group will study and perform literature conducive to a smaller vocal ensemble. Styles included are jazz, barbershop, Broadway, madrigal, and a cappella works. Rehearsals and performances are outside of the school day. Opportunity exists for solo singing and smaller group performance.

Prerequisite: Audition (held prior to or during the first week of classes)

**827 CHAMBER ORCHESTRA**

Grade Level: 10-12; Open to Symphonic Orchestra members only

Course Length: full year; 2 days per week

Credits: 0.5

This 13 to 22 member ensemble will study and perform literature not normally performed by the Symphonic Orchestra. This would include jazz, fiddle, and chamber music. Rehearsals are outside of the school day.

Prerequisite: Audition (held early in September)

**830 PRIVATE MUSIC STUDY**

Grade Level: 10-12

Course Length: full year

Credits: 0.5

In order to receive credit for private music study, a student must:

- Be enrolled in a weekly 30-minute instrumental or vocal lesson for a minimum of 36 weeks during the school year.
- Practice a minimum of five hours weekly.
- Pass a pre-approved (equal to one's ability) final assessment that will be a performance for a high school music teacher.
- Complete and submit appropriate forms to the Counseling Center each quarter. Audition and practice records will be kept on file for one year.

To apply for enrollment and credit, please obtain the necessary forms from either a high school music teacher or school counselor at the beginning of the year. Retroactive credit will not be granted for previous lesson study.

Prerequisite: Application for Applied Music Credit must be initiated prior to the start of the school year.

# SCIENCE

## 322 BIOLOGY (R) ❖

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

In this course, students study the major understandings and skills correlated to the New York State Core Curriculum Guide for the Living Environment. Units of study include Scientific Method; Genetics and Molecular Biology; Reproduction and Development; Classification and Evolution; Energy, Matter, and Organization; Maintaining a Dynamic Equilibrium; and Understanding the Environment.

Scientific reasoning, written expression, and laboratory skills will be used and assessed as part of the course. Per New York State Education Department regulations, students will be required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Living Environment Regents exam given in June of the course year.

## 364 ENVIRONMENTAL SCIENCE ❖

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

In this course, students will have an opportunity to strengthen their problem-solving, inquiry, and critical thinking skills as they engage in the study of environmental concepts. This is a commencement level course as outlined by the New York State MST standards. Students examine the impact of humans on the air, water, soil, and life on the planet. Topics include ecosystems, pollution, land management, and biodiversity as they relate to local, real-world situations. The course has a strong lab focus and an emphasis is placed on local environmental concerns. Fieldwork in local environments is part of the laboratory experience in the course.

Prerequisite: Two credits of science and one credit in Algebra I

## 366 FORENSIC SCIENCE I

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is the first in a sequence and covers a variety of biology, chemistry, and physics concepts and skills correlated to the New York State MST standards. Concepts include crime scene processing, fingerprint analysis, microscopic analysis of trace evidence, handwriting/document analysis, blood typing and blood spatter. Students will have an opportunity to apply physical and biological science content and skills learned in previous courses, while strengthening their problem-solving, inquiry, and critical thinking skills through high interest topics. Laboratory activities and projects are included as part of the course work.

Prerequisite: Two credits of science and one credit in Algebra I

## 329 PHYSICAL SCIENCE-CHEMISTRY ❖

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will have an opportunity to strengthen their problem solving, inquiry, and critical thinking skills by engaging in real-world problems that involve chemistry. This commencement level course covers a variety of chemistry concepts and skills correlated to the New York State Physical Setting: Chemistry Core Curriculum Guide. Concepts include the understanding of the structure of matter, the interaction of matter and energy, and the manipulation of the properties of matter for use in everyday materials. Students are encouraged to continue the exploration of these topics in the Regents Chemistry course. Laboratory activities are included as part of the course work.

Prerequisite: Two credits in science and one credit in Algebra I

## 339 PHYSICAL SCIENCE-PHYSICS ❖

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students will have an opportunity to strengthen their problem-solving, inquiry, and critical thinking skills by engaging in real-world problems that involve physics. This commencement level course covers a variety of physics concepts and skills correlated to the New York State Physical Setting: Physics Core Curriculum Guide. Concepts include forces and motion, work and energy, and alternative energy sources. Students are encouraged to continue the exploration of these topics in the Regents Physics course. Laboratory activities and projects are included as part of the course work.

Prerequisite: Two credits in science and one credit in Algebra I

## 362 SCIENCE & SOCIETY

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course allows students to integrate both new and previously learned physical and biological science knowledge and skills and apply them to real-world situations. Units of study include The Ethics of Science, Food Science, Human Impact on our Environment, and Energy Uses & Solutions. This is a commencement level course as outlined by the New York State MST standards. Scientific literacy will be emphasized through analysis and discussion of science in the news. Use of technology, inquiry, analysis, communication, and debate will be explored and applied. Laboratory activities and projects are included as part of the course work.

Prerequisite: Two credits of science and one credit in Algebra I

**673 FOOD SCIENCE**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This course engages students in the exploration of the science behind the food that we eat. How does the human body use carbohydrates and proteins? Why are vitamin supplements sometimes necessary? What do farmers and manufacturers consider when handling food as it travels from the ground to our dinner tables? What role does technology play in helping to provide people around the world with safe, healthy food choices? Students will participate in hands-on laboratory activities and apply basic scientific principles to explore these and other questions. This would be a good course for students who want to explore careers in health sciences or nutrition-related careers.

**332 CHEMISTRY (R) ❖**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This is a course in which students learn about the theory and applications of chemistry in the context of their relationships to society and the world. Concepts such as atomic structure, periodic law, bonding, behavior of matter, acids and bases, organic chemistry, and nuclear chemistry are presented in a format that heavily emphasizes student lab work, problem-solving, and decision-making about the impact of chemistry on their lives. These topics are correlated to the New York State Core Curriculum Guide for Physical Setting: Chemistry. This course is intended for students with solid math, reading, writing, and problem-solving skills. Per New York State Education Department regulations, students are required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Physical Setting: Chemistry Regents exam given in June of the course year.

Prerequisite: Two Regents credits in science; one credit in Algebra I and concurrent enrollment in Geometry

**342 PHYSICS (R) ❖**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course consists of five major units correlated to the New York State Core Curriculum Guide for Physical Setting: Physics. These units are mechanics, energy, waves, electricity and magnetism, and modern physics. This course is intended for students with solid math, reading, writing, and problem-solving skills. There is an emphasis on extensive problem-solving using algebra and trigonometry. Per New York State Education Department regulations, students will be required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Physical Setting: Physics Regents exam given in June of the course year.

Prerequisite: Two Regents credits in science; one credit each in Algebra I and Geometry

**325 BIOLOGY (AP) ❖**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This course is equivalent to an introductory college-level class in Biology. The following topics are studied: chemistry of life, cells, cellular energetics, heredity, molecular genetics, evolutionary biology, homeostasis, cell communication, and ecology. The class includes lectures, required laboratory exercises, and considerable homework. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Two credits in science with successful completion of, or concurrent enrollment in Regents Chemistry. One credit each in Algebra I and Geometry.

**335 CHEMISTRY (AP) ❖**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This course is equivalent to an introductory college-level class of chemistry. Students will be required to use higher level problem-solving techniques and math skills. Successful completion of this course requires a major time commitment to do the course work and meet the laboratory requirement. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Three credits in science with successful completion of Regents Chemistry. One credit each in Algebra I and Geometry

**355 ENVIRONMENTAL SCIENCE (AP) ❖**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course is equivalent to an introductory college-level class in Environmental Science. The following topics are studied: earth systems and resources, the living world, population, land and water use, energy resources and consumption, pollution, and global change. The class includes lectures, required laboratory exercises, and considerable homework, in addition to many outdoor field experiences. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Two credits in science and successful completion of the Regents exam in Geometry; completion of, or concurrent enrollment in Regents Chemistry

**343 PHYSICS 1 (AP) ❖**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

The focus of this course is on Newtonian mechanics, work, energy and power, and mechanical waves and sound. The topics covered are those found in a typical first semester college course in algebra-based physics. Heavy emphasis will be placed on the development of in-depth, problem-solving skills with extensive use of group work and group lab projects. The Physics 1 Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Two credits in science; one credit each in Algebra I and Geometry

**367 FORENSIC SCIENCE II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is the second in a sequence and covers a variety of biology, chemistry, and physics concepts and skills correlated to the New York State MST standards. It is an option for those students who seek additional coursework in science. Concepts include advanced blood spatter, DNA analysis, chemical analysis of toxins, entomology, anthropology, and criminal profiling. Students will have an opportunity to apply physical and biological science content and skills learned in previous courses, while strengthening their problem-solving, inquiry, and critical thinking skills through high interest topics. Laboratory activities and projects are included as part of the course work.

Prerequisite: Two credits in science; one credit each in Algebra I and Forensics I. Concurrent enrollment in Chemistry.

**370 IMAGING SCIENCE**

Grade Level: 10-12  
Course Length: full year  
Credits: 0.5 science, 0.5 technology

This STEM course combines the physics of light and optics with its application in the expanding field of Imaging Science. In the first semester of this full-year course, students will study the science of light and its properties, principles of optics, the human eye and vision, and aspects of color theory. The second semester will allow students to apply their learning through the exploration of the imaging chain and the various technologies involved in observing, capturing, processing and displaying images. Students will also explore the growing importance of Imaging Science in fields such as biomedical imaging, remote sensing, imaging of display systems (such as LCDs) and others.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisites: Two credits in science; one credit each in Algebra I and concurrent enrollment in Geometry

**373 DIGITAL EARTH**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Global Positioning Systems (GPS) and Geographic Information Systems (GIS) technology are used to investigate characteristics of various places on earth. This course takes you way beyond Google Earth. Students will develop an understanding of how this growing technology is used by a variety of industries for planning and sustainability, natural disaster preparation, natural resource use and conservation efforts. Students will investigate a topic of their choosing and build an interactive “story-map” that can build awareness of an issue or solve a problem.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: Two credits in science and successful completion of Algebra I.

**Project Lead the Way (PLTW)**

**Pre-engineering sequence  
descriptions begin on p. 56**

**Biomedical Sciences sequence  
descriptions begin on p. 58**

# SOCIAL STUDIES

## **123 GLOBAL HISTORY AND GEOGRAPHY 10 (R) ❖**

Grade Level: 10  
Course Length: full year  
Credits: 1.0

In this course, students continue the chronological study of global history from the 18th century's Age of Revolution to the present. Students learn about how industrialism and nationalism shaped the 19th century and study how the 20th century was impacted by such forces as global warfare, fascism, communism, Cold War, the growth of modern technology, and the development of a global economy. Several key concepts are woven throughout the course including industrialization, nationalism, imperialism, conflict, technology, and the interconnectedness of the world. The course emphasizes the importance of historical thinking skills that include gathering, interpreting, and using evidence, chronological reasoning and causation, comparison and contextualization, and geographic reasoning. All of the social studies practices and standards are included in the study of global history and geography.

At the conclusion of this course, all students will take the Regents Examination in Global History and Geography. This examination covers content from the Global 10 course. Students must pass this examination and the course to meet graduation requirements.

## **158 WORLD HISTORY 10 (AP) ❖**

Grade Level: 10  
Course Length: full year  
Credits: 1.0

This is part two of a two-year college-level World History course designed for the advanced tenth grade history student. It may be taken in place of Global History and Geography 10. The chronological breadth of this course ranges from the 18th century to the present. In addition to classroom texts, students will read topical and thematic related literature and articles. This is a reading- and writing-intensive course, utilizing primary and secondary source analysis and evaluation to develop students' historical knowledge. Writing assignments focus on document analysis and exploration of global themes as well as developing connections between events and geographic regions worldwide. The course workload is college level and as such will require student dedication to extensive reading, writing, and class preparation. A summer assignment is required.

The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May. In addition to the Advanced Placement exam, students will take the New York State Regents Exam in Global History and Geography if they have not already done so. Students must pass the Regents examination and this course to meet graduation requirements.

Recommended: World History Pre-AP

## **133 U.S. HISTORY AND GOVERNMENT 11 (R) ❖**

Grade Level: 11  
Course Length: full year  
Credits: 1.0

Following an introductory unit on the development of the U.S. Constitution, the course traces United States history from the early Republic to the present. The course's major focus is on political/governmental, social, economic, and diplomatic history of the United States. At the conclusion of the course, all students will take the Regents examination in U.S. History and Government. Students must pass the regents examination and this course to meet graduation requirements.

## **142 U.S. HISTORY (AP) ❖**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This is a college-level American history course. It is a chronological and topical study of American history covering interpretations of American history, America's wars, reform movements in American history, the economic development of the United States, and American foreign policy. In addition to the textbook, other readings are required. Writing includes regularly assigned short papers. Advanced Placement U.S. History can be taken in place of, or in addition to, U.S. History and Government. The workload will be rigorous, requiring students to read from various texts, research political case studies, and be prepared for daily class discussion. A midterm assessment is required.

The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May. In preparation for this examination, students are expected to attend a number of review sessions. Students will also take the Regents exam in U.S. History and Government if they have not already done so. Students must pass the Regents exam and this course to meet graduation requirements. A summer project is part of this course.

**136 ECONOMICS (R) ❖**

Grade Level: 11-12  
 Course Length: one semester  
 Credits: 0.5

This is a required one-semester introductory course in economic theory and economic decision making. In addition to the key concepts of scarcity and supply and demand, students also study the roles of labor, business, consumers, agriculture, and government within the economy. Following units on monetary and fiscal policies, the course will end with a unit on the contemporary global economy.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisite: One credit in U.S. History and Government

**146 CIVICS AND CITIZENSHIP (R) ❖**

Grade Level: 12  
 Course Length: one semester  
 Credits: 0.5

The focus of this course (formerly Participation in Government), is the process by which public policies are developed and implemented within the local, state, and national levels of our government. The responsibilities of good citizenship and the skills of effective political participation are the major themes of the course. Contemporary public issues are examined, student projects will be assigned, and interaction with government officials will be encouraged. Successful completion of both the course and the public policy project are necessary to earn course credit toward graduation.

Prerequisite: One credit in U.S. History and Government

**156 ECONOMICS (AP) ❖**

Grade Level: 12  
 Course Length: full year  
 Credits: 1.0

This course may be taken in place of the Regents economics course. It examines the key principles applying to the function of individual decision makers, both producers and consumers, within the larger economic market. Topics include supply and demand, competitive models, monopoly, oligopoly, and government regulation. Students also examine personal financial literacy, national income, price determination, measures of economic performance, economic growth, unemployment, price stability, the national debt, and international economics. Periodic tests and homework will determine course grades.

The Advanced Placement exams in Microeconomics and Macroeconomics as administered by the College Board must be taken in May. In preparation for the Advanced Placement Examinations, students will be expected to attend a number of review sessions.

Prerequisite: One credit in U.S. History and Government

**157 GOVERNMENT AND POLITICS U.S. (AP) ❖**

Grade Level: 12  
 Course Length: full year  
 Credits: 1.0

This course may be taken in place of the Civics and Citizenship course. It provides students with an analytical examination of the American political system. Among the topics studied are constitutional issues, political parties and interest groups, political behavior, and political institutions and processes. The workload is rigorous, requiring students to read from various texts, research political case studies, and be prepared for daily class discussion. A summer project may be part of this course.

The Advanced Placement exam as administered by the College Board must be taken in May. In preparation for the Advanced Placement Examination, students will be expected to attend a number of review sessions.

**151 CRIMINAL LAW ❖**

Grade Level: 11-12  
Course Length: one semester  
Credits: 0.5

In this course, students learn about the criminal justice system in America and specifically in New York state. This one-semester course includes an examination of crime, its causes and possible solutions, law enforcement, courts, trial procedures, sentencing, and prisons. Students will hear expert speakers from various parts of the criminal justice system and participate in a number of simulations including a mock trial. A field trip to see the justice system in action is an integral part of the course. This elective course may not be taken for credit more than once.

**155 AMERICAN WOMEN: PAST AND PRESENT ❖**

Grade Level: 11-12  
Course Length: one semester  
Credits: 0.5

In this course, students employ the methods and perspectives of both history and sociology to study the changing roles played by American women. It culminates in a thoughtful examination of contemporary women's issues. The Rochester area is home to the sites of many major events in the story of American women, and students may visit some of these places including the Susan B. Anthony home and the village of Seneca Falls. Classroom instruction includes reading, writing, discussion, guest speakers, videos, and presentations. This elective course may not be taken for credit more than once.

**152 INTRODUCTION TO PSYCHOLOGY ❖**

Grade Level: 11-12  
Course Length: one semester  
Credits: 0.5

This course introduces students to the study of human behavior and to the perspectives and methodologies of psychology. Students learn about themselves and others by investigating the human brain, the nervous system, sleep, dreams, consciousness, memory, learning, and abnormal psychology. Students also design a social scientific experiment. Classroom instruction includes reading, writing, discussion, demonstrations, videos, and presentations. This elective course may not be taken for credit more than once.

**154 INTRODUCTION TO SOCIOLOGY ❖**

Grade Level: 11-12  
Course Length: one semester  
Credits: 0.5

This course introduces students to the study of concepts and principles of sociology, especially as applied to contemporary issues. Students learn about the interplay among individuals, groups, and the larger society, and about the perspectives and methodologies of behavioral social sciences. They also design a social scientific experiment. Classroom instruction includes reading, writing, discussion, guest speakers, videos, and presentations. This elective course may not be taken for credit more than once.

# TECHNOLOGY

## **242 COMPUTER PROGRAMMING**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This course introduces students to the concepts of computer programming using Java, HTML, Flash, and web page design software. Students will be introduced to 3-D animation and game-making software development tools.

## **600 PRODUCTION SYSTEMS: INTRODUCTION TO TOOLS AND MACHINES**

Grade Level: 8-12  
Course Length: one semester  
Credits: 0.5

This half-year course provides instruction in the systems of manufacturing and construction. Students engage in the engineering design process and are introduced to the use of hand and power tools to complete hands-on projects. The impact of manufacturing and construction on society, the economy, and the environment is also emphasized.

## **606 ENGINE OPERATION AND MAINTENANCE**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students develop a knowledge base of engine operation, component parts, maintenance procedures, and proper use of tools through practical application. Activities may include model rocket building and the assembly and disassembly of small engines. Special emphasis will be given to understanding alternative energy sources and their use in modern transportation technology. Possible career opportunities in the field of transportation will be investigated.

## **607 BASIC ELECTRONICS**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this survey course, students will learn about the principles of electricity and be introduced to electronics and circuitry. As they study electricity, students will learn the uses of low voltage and line voltage and how to apply these principles to individual projects. During the study of electronics, students will become familiar with electronic components, circuits, and systems and will engage in building a variety of electronic devices.

## **635 WOOD TECHNOLOGY I**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

Wood technology allows students to learn methods of using hand and machine woodworking tools. Students engage in the engineering design process as they complete projects. Emphasis will be placed on developing skills needed for drawing project designs, reading and following design plans, and working with traditional tools and materials.

## **636 WOOD TECHNOLOGY II**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

In this course, students continue learning about and practicing the use of woodworking tools. Advanced projects encourage students to become more detailed and refined in their woodworking.

Prerequisite: 1/2 credit in Wood Technology I

## **643 CONSTRUCTION SYSTEMS**

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

This course is designed to take a broad look at construction, including residential, commercial, and industrial. Students will be able to see the differences, as well as the similarities, among the types of construction. Through the universal systems model, students learn about inputs, resources, processes, outputs, and impacts of construction. Hands-on, real-life construction projects are a major part of this course.

Prerequisite: 1/2 credit in Wood Technology

## Project Lead the Way (PLTW) Pre-Engineering Sequence

### 641 METAL TECHNOLOGY

Grade Level: 10-12  
Course Length: one semester  
Credits: 0.5

Manufacturing and construction processes that involve metal materials and tools are explored in this course. Students gain experience in welding, soldering, foundry, and sheet metal processes, as well as ornamental iron work, forging, and metal fabrication. As part of this course, students will be expected to complete required projects.

### 370 IMAGING SCIENCE

Grade Level: 10-12  
Course Length: full year  
Credits: 0.5 science, 0.5 technology

This STEM course combines the physics of light and optics with its application in the expanding field of Imaging Science. In the first semester of this full-year course, students will study the science of light and its properties, principles of optics, the human eye and vision, and aspects of color theory. The second semester will allow students to apply their learning through the exploration of the imaging chain and the various technologies involved in observing, capturing, processing and displaying images. Students will also explore the growing importance of Imaging Science in fields such as biomedical imaging, remote sensing, imaging of display systems (such as LCDs) and others.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisites: Two credits in science; one credit each in Algebra I and concurrent enrollment in Geometry

### 624 ROBOTICS SYSTEMS 1B

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

Students will design, build and program a robot using an advanced level programming language and the engineering design process. The concepts of robotics and automation are emphasized, as well as the increasing use of these in various industries. Students will work in teams to solve problems using robotics technology, and will engage in competitive challenges.

### 611 INTRODUCTION TO ENGINEERING DESIGN

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

This hands-on course offers students an opportunity to explore the growing field of engineering. The process of problem-solving used by engineers is emphasized as students design products to satisfy a particular consumer need or plan investigations to improve upon designs. Examples of projects include designing solutions for cleaning up an oil spill or developing a tool for making a household chore easier. This course serves as a good foundation for any of the technology or Project Lead the Way courses.

RIT college credit is available. Students must maintain an 85 average in the course and pass an RIT final exam with a minimum grade of 70 to be eligible. The grade on the RIT final will serve as the final course grade on the RIT transcript. Those who qualify receive the credit at no cost.

Prerequisites: One credit in Algebra I

### 609 DIGITAL ELECTRONICS

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This is a Project Lead the Way course in applied digital logic. Students learn about electronic logic circuits and devices, which are found in calculators, video games, computers, and thousands of other items. Emphasis is on laboratory experiences. Students have the opportunity to use equipment such as multimeters, oscilloscopes, audio generators, and power supplies. This course will be of special interest to those planning a career in science, engineering, biotechnology, or industry.

RIT college credit is available. Students must maintain an 85 average in the course and pass an RIT final exam with a minimum grade of 70 to be eligible. The grade on the RIT final will serve as the final course grade on the RIT transcript. Those who qualify receive the credit at no cost.

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 1 for details.

Prerequisites: One credit each in Algebra I and Introduction to Engineering Design

**642 COMPUTER INTEGRATED MANUFACTURING (CIM)**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

CIM is one of the five Project Lead the Way pre-engineering courses. The focus is an in-depth study of topics related to the growing field of robotics and automation. This is a hands-on course that incorporates programming for control of automated systems, CAD/CAM, and the extensive use of CNC machines used in precision manufacturing. Partnerships with local colleges and manufacturing companies provide students with a variety of experiences and opportunities.

RIT credit is available. Students must maintain an 85 average in the course and pass an RIT final exam with a minimum grade of 70 to be eligible. The grade on the RIT final will serve as the final course grade on the RIT transcript. Those who qualify receive the credit at no cost.

Prerequisites: One credit each in Algebra I and Introduction to Engineering Design

**618 ENGINEERING DESIGN AND DEVELOPMENT**

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

This is the “capstone” for the Project Lead the Way course of study. Through an in-depth engineering project, students learn the elements of formal research as well as the steps involved in defining, prototyping, and solving an engineering problem. Classroom experiences include documenting the process, consulting with experts, gathering data, field testing, and writing the research paper. A combination of class work and independent research around a topic of interest will result in a formal presentation of the student’s work to a panel in the field.

Prerequisite: One credit each in Algebra I, Geometry, and Introduction to Engineering Design

Recommended: Successful completion of one additional Project Lead the Way course

**610 PRINCIPLES OF ENGINEERING**

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This pre-engineering course is intended for students who wish to pursue a career in the engineering profession, or for those who wish to explore this exciting area. Principles of Engineering, one of the five Project Lead the Way pre-engineering courses, is a broad-based survey course that helps students develop problem-solving skills through activities related to engineering principles. Projects include the use of tools for wood, metal, electronic, and chemical conditions, as well as computers to be used for design, problem-solving, and as control devices. This course is intended for students with solid math and problem-solving skills.

RIT college credit is available. Students must maintain an 85 average in the course and pass an RIT final exam with a minimum grade of 70 to be eligible. The grade on the RIT final will serve as the final course grade on the RIT transcript. Those who qualify receive the credit at no cost.

Prerequisites: One credit each in Algebra I and Introduction to Engineering Design

## Project Lead the Way (PLTW)

### Biomedical Science Sequence

#### 365 PRINCIPLES OF BIOMEDICAL SCIENCES

Grade Level: 9-12  
Course Length: full year  
Credits: 1.0

This is a Project Lead the Way course that introduces students to the growing field of biotechnology. In this course, students will investigate the human body systems and various health conditions, including heart disease, diabetes, sickle-cell disease, hypercholesterolemia and infectious diseases. A hands-on, problem-based approach will introduce students to human physiology, medicine, research processes and bioinformatics, while emphasizing engineering principles used to design solutions to problems.

College credit is available and is an option for all students at a reduced tuition rate. To be eligible, students must meet the criteria set by the college, which includes successful completion of both the course and the end of course assessment.

Prerequisite: One credit each in science and Algebra.

#### 369 HUMAN BODY SYSTEMS

Grade Level: 10-12  
Course Length: full year  
Credits: 1.0

This Project Lead the Way course allows students to continue their investigation of the biotechnology concepts learned in Principles of Biomedical Sciences. Students design experiments, investigate the structures and functions within the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Through the use of various technologies and a hands-on, problem-based approach, students will develop a deeper understanding of human anatomy and physiology.

College credit is available and is an option for all students at a reduced tuition rate. To be eligible, students must meet the criteria set by the college, which includes successful completion of both the course and the end of course assessment.

Prerequisite: Principles of Biomedical Sciences

#### 371 MEDICAL INTERVENTIONS

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

In this Project Lead the Way course, students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease. The course is a “how-to” manual for maintaining overall health and homeostasis in the body. Students explore how to prevent and fight infection; screen and evaluate the code in human DNA; prevent, diagnose and treat cancer; and prevail when the organs of the body begin to fail. Through real-life scenarios, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics.

College credit is available and is an option for all students at a reduced tuition rate. To be eligible, students must meet the criteria set by the college, which includes successful completion of both the course and the end of course assessment.

Prerequisite: Principles of Biomedical Sciences, Human Body Systems

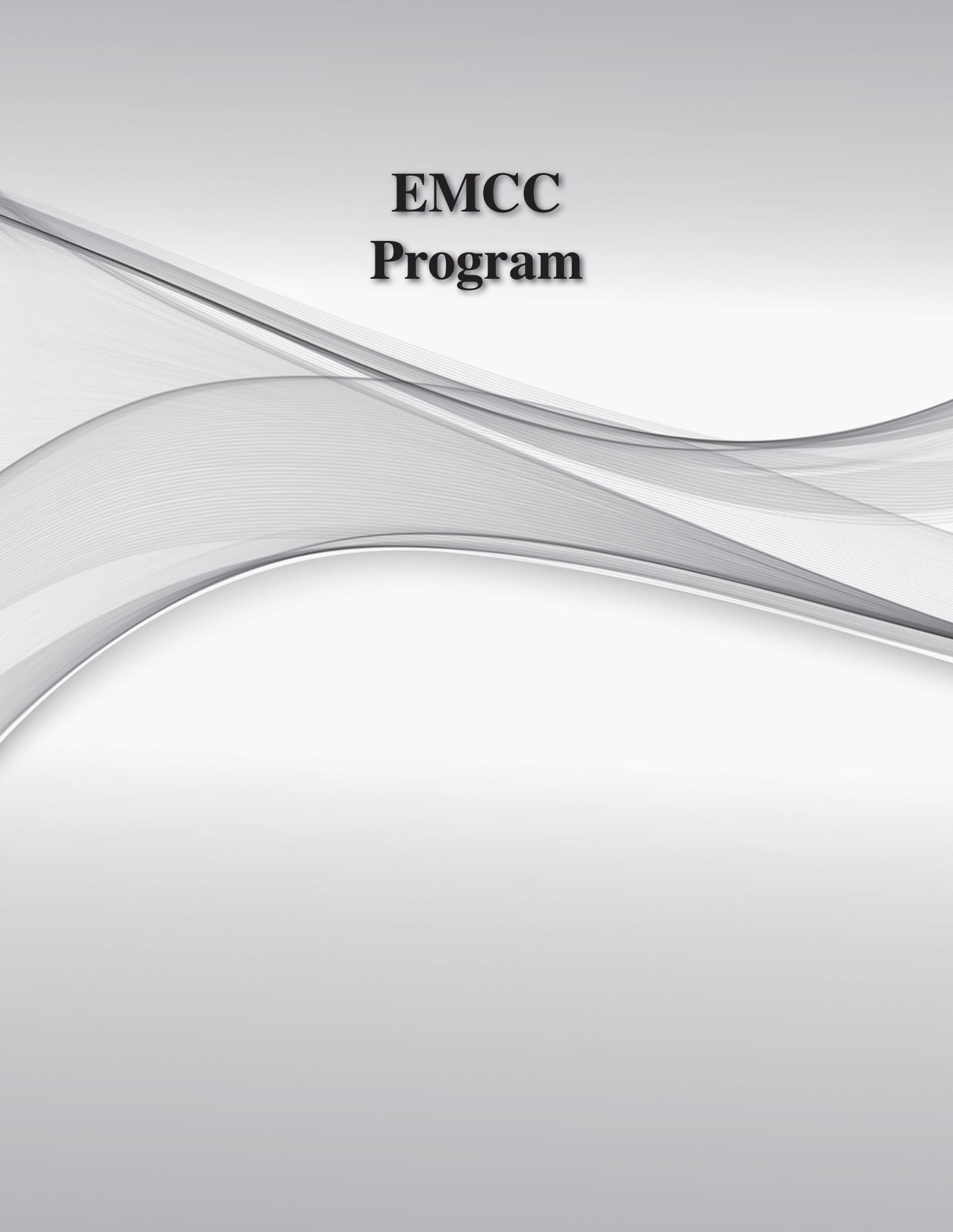
#### 372 BIOMEDICAL INNOVATION

Grade Level: 11-12  
Course Length: full year  
Credits: 1.0

In this Project Lead the Way capstone course, students work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. Students work on an independent research project, and design innovative solutions for a health challenge people may currently be facing. Their findings will be presented to an audience of science professionals in the community.

College credit is available and is an option for all students at a reduced tuition rate. To be eligible, students must meet the criteria set by the college, which includes successful completion of both the course and the end of course assessment.

Prerequisite: Principles of Biomedical Sciences, Human Body Systems



# **EMCC Program**

# *Through Monroe BOCES #1*

## **EMCC - EASTERN MONROE CAREER CENTER**

The Eastern Monroe Career Center (EMCC) is committed to offering programs that provide high school students the opportunity to develop the skills and attitudes they will need to succeed in their chosen careers. EMCC combines real-life learning experiences, academic skills, and business and industry partnerships to prepare graduates for future education and employment endeavors.

Students attend a half-day session every school day. Schedules are designed so students can still take courses at their home school and also participate in extracurricular activities.

Session I - 8:20 - 10:40 AM Session II - 11:45 - 1:50 PM

Three credits are earned for the basic course (year one - afternoon session) and three and a half for the advanced course (year two - morning session). In some cases, students may also earn credit for English, math, science, and other courses while attending EMCC. This information is noted in individual course descriptions and **is dependent upon prior school district approval and criteria.**

The Rush-Henrietta Central School District pays for both tuition and transportation. Certain Career Center courses require uniforms, tools, and/or safety equipment. There may be an additional cost for college credit. See your school counselor for more information.

A student who successfully completes an approved career and technical education program earns a technical endorsement (seal) on the Regents diploma by:

- Completing all high school graduation requirements, including the passing of Regents examinations.
- Passing a state or national technical assessment.
- Completing a work-based experience and employability profile.

Students who receive this endorsement can be proud of achieving challenging academic and industry standards.

## **Work Experience Options**

EMCC courses provide opportunities for on-the-job work experience. Students work side-by-side with professionals in the field, gaining valuable knowledge and using the skills learned in EMCC courses.

**Job Shadowing:** Shadowing allows students to have short-term exposure to the field they are studying. Students gather career information and obtain an awareness of job requirements and duties through observation and speaking with an employer.

**Internship:** Students are assigned by their teacher to observe and participate (without pay) in work activities related to their technical curriculum. The major objective is for students to acquire expanded learning through exposure to a functionally related work site.

**Co-op:** Upon successful completion of an internship, students who have mastered entry-level job skills can be placed by their teacher into paid employment that is directly related to their EMCC training. The major objective is for students to practice more advanced classroom-learned skills in “real-life” situations. Students also benefit from earning a salary while they are learning.

## **College Credit Options**

Many courses at EMCC offer students the opportunity to earn college credit in addition to the high school credits earned.

## **Articulation Agreement**

Many programs offer articulation agreements with specific colleges. These agreements allow students to advance to higher level courses\* in their areas of study at their chosen colleges. These credits are NOT transferable, which means they only apply to the school with which the agreement was made. Some courses are offered at no extra cost to the student, while others require tuition. Each program varies depending on the sponsoring college. Please check with the EMCC counselors to learn more.

\* Based on the successful completion of the EMCC program

## **Dual Enrollment**

EMCC, Monroe Community College (MCC), and Genesee Community College (GCC) have joined to offer college credit to students while they are attending high school.\*\* These credits are transferable to many colleges and universities.

The EMCC instructor works closely with college faculty to ensure that course outcomes and objectives are reached.

Courses offering dual enrollment cover the same curriculum and maintain the same high standards for all students. Students are not required to register for dual enrollment if they choose not to participate.

When a student completes the course, it appears as a true college credit on a MCC or GCC transcript and is as transferable as any other college course.

Students are offered this opportunity at a reduced tuition rate. \*\* College credits provided in this course book are subject to change.

**EMCC Course Offerings Available to R-H Students in Grades 11-12**

| <b>EMCC Course</b>                 | <b>Credit</b>                | <b>Academic Credit Available</b>   |
|------------------------------------|------------------------------|--|
| Auto Services                      | 1.00<br>1.00                 | Advanced - English 12<br>Basic - Technical Science   |
| Biomedical Laboratory Technology   | 1.00<br>1.00                 | Advanced - English 12<br>Basic - Technical Science   |
| Cisco Networking Academy           | 1.00                         | English 12 for Seniors   |
| Collision Repair Technology        | 1.00                         | Advanced - English 12<br>Advanced - Technical Science  |
| Construction Trades                | 1.00                         | Advanced - English 12<br>Advanced - Technical Math   |
| Cosmetology                        | 1.00<br>1.00                 | Advanced - English 12<br>Basic - Technical Science   |
| Criminal Justice                   | 1.00<br>0.50<br>0.50<br>1.00 | Advanced - English 12<br>Advanced - Civics and Citizenship<br>Advanced - PE<br>Basic - Technical Science |
| Culinary Arts                      | 1.00<br>1.00                 | Advanced - English 12<br>Advanced - Technical Math   |
| Emergency Services                 | 1.00<br>1.00<br>0.50         | Advanced - English 12<br>Advanced - Technical Science<br>Basic - Health                                  |
| PC Repair & Network Cabling        | 1.00                         | English 12 for Seniors   |
| Precision Machining                | 1.00<br>1.00                 | Advanced - English 12<br>Advanced - Technical Science  |
| Professional Health Careers        | 1.00<br>1.00<br>0.50         | Advanced - English 12<br>Advanced - Technical Science<br>Basic - Health                                  |
| Trade Electricity                  | 1.00                         | Advanced - English 12<br>Advanced - Technical Math   |
| Visual Communication & Photography | 1.00                         | Advanced - English 12  |
| Welding and Fabrication            | 1.00<br>1.00                 | Advanced - English 12<br>Advanced - Technical Science  |

\* Pending Program Approval

**AUTO SERVICES: TWO-YEAR COURSE**

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 positions

*Further educational opportunities:* Post-secondary programs in automotive technology and related mechanical trades (diesel mechanics, small engines etc.)

*Industry-based exam/certifications:* Automotive Service Excellence (ASE) Student certification exam; Automotive Service Excellence (ASE) Student certification

**BIOMEDICAL LABORATORY TECHNOLOGY: TWO-YEAR COURSE**

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 exam/certifications:* Certified Medical Laboratory Assistant

**CISCO NETWORKING ACADEMY: ONE-YEAR COURSE**

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 exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam, Preparation for CompTIA Network+, Cisco Certified Entry Networking Technician and Cisco Certified Network Associate certifications

*Students are prepared to take:* CompTIA Network+, Cisco Certified Entry Networking Technician and Cisco Certified Network Associate exams

**COLLISION REPAIR TECHNOLOGY: TWO-YEAR COURSE**

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

*Industry-based exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam - Collision Repair/Refinishing Technology; Preparation for I-CAR certification

### **CRIMINAL JUSTICE: TWO-YEAR COURSE**

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 exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam – Criminal Justice/Law Enforcement; NYS Security Guard certification exam; CPR and First Aid certification; NYS Security Guard certification

### **CULINARY ARTS: TWO-YEAR COURSE**

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 the food service industry

*Further educational opportunities:* Post-secondary programs in culinary arts, nutrition, hotel and restaurant management, hospitality, etc.

*Industry-based exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam - Culinary Arts Cook Level-2; Pro-Start exam; ServSafe exam; Pro-Start Certificate, ServSafe Certificate

### **EMERGENCY SERVICES: TWO-YEAR COURSE**

This 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 exam for Certified First Responder. Second-year students participate in an eight-week field internship and take the NYS EMT-Basic certification exam. Students learn to follow medical direction to provide direct patient care. **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.**

In order to maximize the number of students eligible to take the EMT-B certification exam, EMCC submits two applications to the state for the exam to be given in June and August. As a result, students must be 18 years of age by the last day of August of their senior year in order to be eligible to take the EMT-B certification exam.

Due to this regulation, students must be 18 years of age by August 31st of 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). Therefore, students who take the 2nd year (Advanced) of the Emergency Services program at EMCC must register for the associated dual enrollment course (Emergency Medical Technician - EMS 110, 6 credits) through MCC where students pay 1/3 the regular tuition per credit hour.

Finally, in accordance with MCC course policies, students must maintain a minimum of a 75% class average and have 100% attendance in order to be eligible to participate in an internship, and sit for the NYS EMT-B certification exam.

*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 exam/certifications:* NYS Department of Health (DOH) Certified First Responder exam; NYS DOH Emergency Medical Technician-Basic exam; Certified First Responder (CFR) certification; NYS EMT-Basic certification; American Heart Association CPR/AED certification

### **CONSTRUCTION TRADES: TWO-YEAR COURSE**

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 dry wall, kitchens and baths, trim and painting, and form-building for concrete structures. Training in home energy audits and truss and soffit construction is included with practical applications on site. Students work on other related projects including, sheds and decks.

*Employment opportunities upon completion:* Entry-level positions in residential and commercial construction, retail industries, roofing, siding, finishing, and cabinet making

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

*Industry-based exam/certifications:* National Center for Construction Education and Research (NCCER) Core Certification exam; NCCER Level 1 Carpentry and/or Masonry exam; NCCER Core Certification, NCCER Level 1 Carpentry and/or Masonry certification; Occupational Safety and Health Administration (OSHA) 10-hour certification

### **COSMETOLOGY: TWO-YEAR COURSE**

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. Upon accumulating 1,000 hours of theory and practice, students 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, platform artist, make-up artist, and esthetician (skin and spa services)

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

*Industry-based exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam - Cosmetology; Preparation for the NYS Cosmetology licensing exam

### **PC REPAIR & NETWORK CABLING: ONE-YEAR COURSE**

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 positions such 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 exam/certifications:* National Occupational Competency Testing Institute (NOCTI) exam - Computer Repair Technology; Preparation for CompTIA A+ and CompTIA Network+ exams

### **PRECISION MACHINING: TWO-YEAR COURSE**

Students are introduced to the field of precision machining through a hands-on approach. A student completing the course will be able to safely setup and operate various machines such as lathes, mills, grinders, drill presses, band saws, and Computer Numerical Controlled (CNC) mills and lathes. Print reading and shop math is taught and CAD & CAM software will be introduced and used in class. Students will use precision measuring tools to measure and inspect projects. This course is recommended for students interested in pursuing a career in the field of industrial or mechanical engineering or to obtain employment in the advanced manufacturing field after graduating. Employment in both disciplines is very good throughout the country. There are no prerequisites, although a good math background is helpful. The length of the course is two years.

*Employment opportunities upon completion:* Machinist, Tool Maker, Mold Maker, Machine Builder, Inspector (QA), Optical Fabricator, Machine Repair Technician, CNC Machine Operator, Set Up or Programmer. New York State Apprenticeship in a certified company

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

*Industry-based exam/certifications:* Precision Machining- National Occupational Competency Testing Institute Test or National Institute of Metal Working Skills (NIMS); National Institute of Metal Working Skills (NIMS) Certification

### **PROFESSIONAL HEALTH CAREERS: TWO-YEAR COURSE**

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)

*Industry-based exam/certifications:* Nursing Assisting-National Occupational Competency Testing Institute; NYS Nursing Assistant Certification (seniors only) and CPR

### **VISUAL COMMUNICATION AND PHOTOGRAPHY: TWO-YEAR COURSE**

Students explore the process of design through traditional and digital media. Emphasis is on developing ideas for effective visual communication. Students accept and offer constructive criticism through the critique process and generate creative solutions to client-driven products. Students with experience in studio art, drawing and painting, or advertising design courses are encouraged to pursue this program. Digital SLR Photography is integrated into the program. The Adobe Creative Suite curriculum is integrated throughout.

*Employment opportunities upon completion:* Entry-level positions such as photography assistant, design intern, screen printing technician, sign-maker, gallery assistant

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

*Industry-based exam/certifications:* Visual Communication Using Adobe Photoshop exam; Advertising & Design–National Occupational Competency Testing Institute; Adobe Certified Associate

### **TRADE ELECTRICITY: TWO-YEAR COURSE**

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:* Entry-level positions such 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/certifications:* National Center for Construction Education and Research (NCCER) Core Certification exam, Occupational Safety and Health Administration (OSHA) 10-hour certification

### **WELDING & FABRICATION: TWO-YEAR COURSE**

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

*Industry-based exam/certifications:* Welding-National Occupational Competency Testing Institute Test, Occupational Safety and Health Administration (OSHA) 10 hour card

# INFORMATIONAL RESOURCES

## Naviance Family Connection

Naviance Family Connection is a tool used to help students in grades 6-12 plan for a successful transition out of high school through post secondary and career exploration.

Students use Family Connection to access information on careers and colleges, to complete self-directed surveys and to apply to colleges.

Family Connection may be accessed through the district website at [www.rhnet.org/familyconnection](http://www.rhnet.org/familyconnection). A link to the Family Connection site is also available on the Burger, Roth, NGA, and Senior High School webpages in the quick links column at the left of the page.

Once on the Family Connection page, please choose your student's appropriate school Family Connection link. Parents/guardians are encouraged to use Naviance together with their students.

A student's user name and password are as follows:

User Name: Last Name+First Initial+Graduation Year

Password: studentID#

Ex: Jane Doe, Class of 2016

User Name: DoeJ13

Password: 123456

Once the homepage loads, "Tabs" will link you to the main parts of Family Connection. They include:

- The R-H High School course selection process.
- Career interest, personality, and learning style inventories.
- Important news about college visits, college fair information, and events at the Ninth Grade Academy and Senior High School.
- A comprehensive college search engine.
- Access to the college application website.
- College related links and scholarship applications.
- Ability to construct the required activity resume.
- Ability to contact counselors directly by e-mail.

Family Connection is used in classroom lessons with all students in grades 6-12. Students and their families are also encouraged to explore Family Connection at home as well.

## Course Load

Students are encouraged to take advantage of the programs offered by carrying a course load consistent with their abilities and interests and that allows them to meet all minimum requirements of the New York State Education Department and the school district. Students are required to take, as a minimum, a schedule of classes equivalent to six classes plus physical education each semester.

## Promotion Requirements

High school students are assigned to a grade level annually based on cumulative credits earned by the first day of school. A minimum of 5 credits is needed to be considered a sophomore, 10 credits to be a junior, and 15 credits to be a senior.

## Semestering

In some cases, a full-year course may be offered for one semester with students attending every day. These scheduling decisions are made collaboratively by school counselors, directors, administrators, parents/guardians, and students.

## NCAA Eligibility

Students interested in competing in athletics at the college level must consult each college regarding its athletic affiliation. Those schools who participate in the NCAA (National Collegiate Athletic Association) are separated into three major categories called Divisions. Eligibility to participate in intercollegiate athletics is determined by a student's Grade Point Average (GPA) as calculated by the NCAA based on quality points earned in NCAA pre-approved R-H courses, and SAT or ACT scores. Student athletes intending to participate in intercollegiate athletics at the Division I or II level should consult [www.ncaa.org](http://www.ncaa.org) and their school counselor beginning in the ninth grade. Although Division III colleges/universities do not have specific academic requirements for athletic participation, strong college preparatory programs are encouraged. Throughout this book, courses with NCAA approval are denoted with a ♦ symbol. For more information regarding NCAA eligibility, see [www.ncaa.org](http://www.ncaa.org).

## Schedule Change Protocol

The high school budget is prepared, staff is hired, and the master schedule is developed based on student course requests submitted by March 3, 2017. Therefore, after March 3, schedules may only be changed for the following reasons:

- An error or omission.
- Course credits required for graduation (June failures and summer academic outcomes including results of RIT/U of R courses).
- Requirements for post-graduation placement.
- Request to change levels from a higher to a lower level class;
- Required by a formal instructional planning committee (CSE, 504, AIS, IST).
- Add a course in place of study hall if room is available and the class is offered at the same time as the study hall.
- Required to accommodate classes taken at RIT, U of R, or MCC.
- Required to accommodate school approved work experiences, i.e., Co-op or Internship.

## Alternative High School Regents Program

The vision for the Alternative High School Regents Program is to provide an alternative learning environment for students who have struggled with their academic success in a traditional high school. The intent is to engage students and families in the educational process in ways that will enable the students to graduate with a Regents or Regents with Advanced Designation Diploma.

This program provides a non-traditional setting for students in grades 9-12 that includes small group instruction, greater access to teachers and counselors, in addition to Health and Wellness group activities to support student success. Parental support for the program is required.

Additional information may be obtained from your child's school counselor.

# GRADUATION REQUIREMENTS

There are three components to meeting graduation requirements. The first is completion of specific courses, the second is the acquisition of credits, and the third is the passing of state examinations. Students must earn a minimum of 22 credits to receive a diploma. When making an educational plan for a student, the goal is to have each student reach his or her highest possible academic potential. In providing for a diversified curriculum for students we address the varying degrees of individual interests and abilities.

It is strongly recommended that students who plan to attend a four-year college or university after graduation meet the requirements for a Regents Diploma with Advanced Designation. Students must choose one of the three options for meeting those requirements: LOTE sequence; Music/Art sequence; Career/Technical Education sequence. The required units of credit and the required examinations that need to be passed to earn a Regents Diploma or Regents Diploma with Advanced Designation are listed below. In some options, (i.e. LOTE sequence and Regents Diploma) students will need to select additional electives to fulfill the minimum of 22 credits to graduate. Those electives may be taken in any curricular area.

| Required Content Courses  | CREDIT REQUIREMENTS             |  |   |  |
|---|---------------------------------|--|---|--|
|   | Regents Diploma                 | Regents Diploma with Advanced Designation:<br>Students will choose one of these three options: |   |  |
|   | Minimum Units of Credit Needed: | LOTE Sequence<br>Minimum Units of Credit Needed:   | Music/Art Sequence<br>Minimum Units of Credit Needed: | Career/Technical Education Sequence<br>Minimum Units of Credit Needed: |
| English   | 4                               | 4  | 4   | 4  |
| Social Studies  | 4                               | 4  | 4   | 4  |
| Math  | 3                               | 3  | 3   | 3  |
| Science   | 3                               | 3  | 3   | 3  |
| LOTE  | 1                               | 3  | 1   | 1  |
| Art/Music   | 1                               | 1  | 5   | 1  |
| Health  | .5                              | .5   | .5  | .5   |
| Physical Education  | 2                               | 2  | 2   | 2  |
| Career/Technical Ed.<br>(Business, Technology, Family & Consumer Science, EMCC) | 0                               | 0  | 0   | 5  |

Languages Other Than English (LOTE): To earn the one required credit for graduation students must complete two years of study in a language other than English by the end of their freshman year and pass the required exam. To earn a Regents Diploma with Advanced Designation using the LOTE sequence, students are required to earn 3 credits in a language other than English and pass the Comprehensive Level III LOTE Exam.

| Required Exams for: | Regents Diploma:  | Regents Diploma with Advanced Designation:  |
|---------------------|---|---|
| English             | Comprehensive English Regents   | Comprehensive English Regents   |
| Social Studies      | Global History and Geography Regents<br>U.S. History and Government Regents | Global History and Geography Regents<br>U.S. History and Government Regents                                   |
| Math                | Algebra I Regents <b>OR</b> Geometry Regents <b>OR</b> Algebra II Regents   | Algebra I Regents<br>Geometry Regents<br>Algebra II Regents   |
| Science             | One Science Regents   | The Living Environment Regents and one of the Physical Settings (either Earth Science, Chemistry, or Physics) |
| LOTE                | Proficiency Exam in Grade 8 <b>OR</b><br>Local Level I R-H Final Exam       | Local Level I R-H Final Exam<br>Comprehensive Level III LOTE Exam   |

# GRADUATION PLAN

| GRADE 8                                       | GRADE 9                                       | GRADE 10   | GRADE 11                                      | GRADE 12   |
|---|---|--|---|--|
|   | English 9 _____                               | English 10 _____                                 | English 11 _____                              | English 12<br>Reading Component _____<br>Writing/Research Comp _____ |
|   | Global History 9<br>_____                     | Global History 10<br>_____                       | U.S. History/Govt.<br>_____                   | Civics and Citizenship _____<br>Economics _____                      |
| Math _____                                    | Math _____                                    | Math _____                                       | Math _____                                    | Math _____   |
| Science _____                                 | Science _____                                 | Science _____                                    | Science _____                                 | Science _____  |
| LOTE _____                                    | LOTE _____                                    | LOTE _____                                       | LOTE _____                                    | LOTE _____   |
| Career/Technical Education<br>_____           | Career/Technical Education<br>_____           | Career/Technical Education<br>_____              | Career/Technical Education<br>_____           | Career/Technical Education<br>_____                                  |
| Art or<br>Music _____                         | Art or<br>Music _____                         | Art or<br>Music _____                            | Art or<br>Music _____                         | Art or<br>Music _____  |
|   | Phys. Ed 9<br>_____                           | Phys. Ed 10<br>_____                             | Phys. Ed 11<br>_____                          | Phys. Ed 12<br>_____   |
|   |   | High School Health _____<br>(10th, 11th or 12th) |   |  |
| Electives<br>_____<br>_____<br>_____          | Electives<br>_____<br>_____<br>_____          | Electives<br>_____<br>_____<br>_____             | Electives<br>_____<br>_____<br>_____          | Electives<br>_____<br>_____<br>_____                                 |
| Credits this yr. _____<br>Total Credits _____ | Credits this yr. _____<br>Total Credits _____ | Credits this yr. _____<br>Total Credits _____    | Credits this yr. _____<br>Total Credits _____ | Credits this yr. _____<br>Total Credits _____                        |
| Notes:  | Notes:  | Notes:   | Notes:  | Notes  |

\* minimum of 6.5 credits each year for grades 9-12.



**RUSH-HENRIETTA  
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