

Rush-Henrietta Central School District

2020-2021

Secondary Program Course Guide

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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PROGRAM INFORMATION

Regents (R)

These courses are offered to prepare students for New York state-required exams and the New York State Regents. For New York State Regents Diploma and Regents Diploma with Advanced Designation requirements see page 67.

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 may be completed online at MyPaymentsPlus.com or 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.

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 Rush-Henrietta 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.

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.

Dual Enrollment Program

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.

Students who successfully meet the requirements of a dual enrollment course will earn high school credit(s) and a credit at MCC. The MCC credit(s) earned will be reported on an MCC transcript.

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 Central 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 toward 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 secondary program course guide.

Career and Technical Education (CTE)

Career and Technical Education (CTE) is an umbrella term for instruction that introduces students to career opportunities and requirements and helps them obtain technical skills, apply academic skills, and develop career-related behaviors. Career and Technical Education includes rigorous academic content closely aligned with career and technical subject matter using the state learning standards of Career Development and Occupational Studies (CDOS) as a framework.

In secondary education, CTE includes the specific disciplines of business and marketing education, family and consumer sciences education, health occupations education, technical education, technology education, and trade/industrial education. The purpose of CTE is to provide learning experiences where students become aware of a broad spectrum of careers and develop skills that are applicable to personal and career roles that are necessary for employment in specific career areas or postsecondary study. CTE programs aim to prepare students for life after high school.

Career and Technical Education (CTE) Endorsement is an enhancement on a student's high school diploma in the form of a New York State Education Department seal indicating that a student has completed coursework in a state-approved CTE program. CTE programs contain a related and continuous series of courses in a career and technical area. Academic and technical knowledge and skills within this series of courses prepares students for further education or employment in a career. The program is supported by work-based learning experiences, integrated and specialized instruction, a Work-Skills Employability Profile, and nationally accredited assessments. (See page 6 for more information.)

Naviance Student

Naviance Student is a tool used to help students in grades 7-12 plan for a successful transition out of high school through post secondary and career exploration.

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

Naviance Student may be accessed through the district website at www.rhnet.org/naviance. A link to the Naviance Student site is also available on the Burger, Roth, and Senior High School webpages in the quick links column at the right of the page.

Once on the Naviance Student page, please choose your student's appropriate school Naviance Student 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 2019

User Name: DoeJ18

Password: 123456

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

- Career interest, personality, and learning style inventories.
- Important news about college visits, college fair information, and events at the 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.

Naviance Student is used in classroom lessons with all students in grades 7-12. Students and their families are encouraged to explore this resource at home as well.

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 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.

Schedule Change Protocol

The high school budget is prepared, staff is hired, and the master schedule is developed based on student course requests in early spring. Schedule changes may not be honored after this time. Exceptions may be made 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.

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.

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 the 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. The district provides each student with a Chromebook to improve the quality of their learning in school and at home.

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 crucial 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 complete the required sequence of arts instruction in Art 7. In addition, all students must earn at least one high school credit in music or art in order to graduate. Foundations in Art satisfies the one credit requirement. Applied Art Technologies satisfies 0.5 of the required credit. Students who are considering a career in the visual arts should take a sequence of coursework, starting in eighth or ninth grade with Foundations in Art, in order to meet the prerequisites needed to take AP Studio in Art in their senior year.

Students wishing to prepare for a specialized field of study in the visual arts may complete more than one semester of identified courses as an independent study before taking Advanced Studio in Art. Students taking AP Studio in Drawing and Painting should also enroll in Portfolio Preparation. Students who are interested in pursuing a Regents diploma with Advanced Designation in the Arts must take a combination of visual arts courses including Foundations in Art plus four additional credits in advanced courses. Students interested in pursuing a Regents with Advanced Designation in Fine Arts must take a 5-unit Visual Arts Education Sequence. To receive Regents credit for a five-unit visual arts sequence, students must pass the foundation course and earn at least four additional units of credit in advanced courses.

ART COURSES

700 Art 7

Electives offered for grade 8

701 Foundations in Art

726 Applied Art Technologies

Electives offered for grade 9

701 Foundations in Art

726 Applied Art Technologies

702 Digital Imaging & Photography I

705 Drawing & Painting I

Electives offered for grade 10-12

701 Foundations in Art

Digital Art

702 Digital Imaging & Photography I

704 Digital Imaging & Photography II

727 Animation

719 Studio in Graphic Design

725 Yearbook

721 Advanced Digital Imaging

3-Dimensional Art

711 Ceramics I

712 Ceramics II

715 Jewelry & Metal Crafts

713 Crafts

717 Fashion Design and Illustration

718 Interior Design

Fine Art

705 Drawing & Painting I

706 Drawing & Painting II

707 Advanced Studio in Art

723 Portfolio Preparation

708 Studio Drawing & Painting (AP)

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. The purpose of the program is 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.

Career and Technical Education (CTE) Endorsement on Diploma

Students enrolled in CTE programs, who successfully complete the CTE endorsement and graduation requirements, will earn a Regents Diploma with Advanced Distinction and a technical endorsement will be affixed to their diploma.

The Business and Marketing CTE endorsement indicates that a student has completed a rigorous program of study in Business and Marketing, completed a work experience component, and successfully passed two nationally accredited exams. Many of the business courses are offered for dual-enrollment credit through Monroe Community College (MCC), so students can earn college credit while taking these courses at Rush-Henrietta. The purpose of the Business endorsement program, as outlined by the New York State Education Department, is to prepare students for employment and post-secondary study.

Requirements leading to the technical endorsement include:

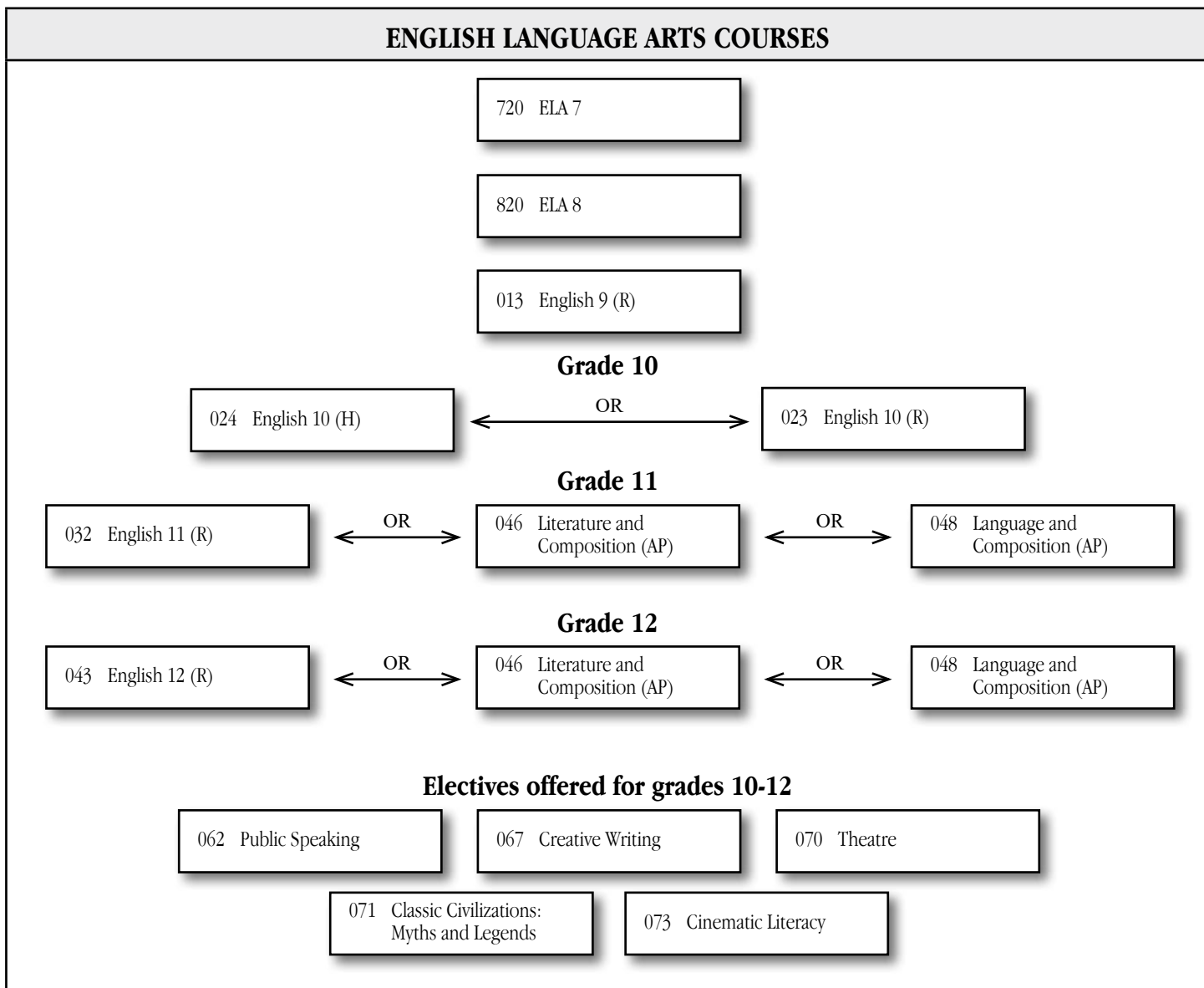
- completion of 5 credits in Business courses (including required courses).
- completion of two external exams (aligned to Business CTE program).
- completion of work-skills employability profile.
- completion of work-based learning experiences.

BUSINESS COURSES			
Electives offered for grade 8			
546 Business Entrepreneurship: Putting Ideas into Action			
Electives offered for grade 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 ensure all students achieve literacy levels sufficient to ensure college and career success. Students that are interested in pursuing rigorous college level coursework in English will be encouraged to take advantage of the AP Language and AP Literature courses in grades 11 and 12. 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 in grades 9-12 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.



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 Family and Consumer Science 7 and Family and Consumer Science 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 Family and Consumer
Science 7

810 Family and Consumer
Science 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

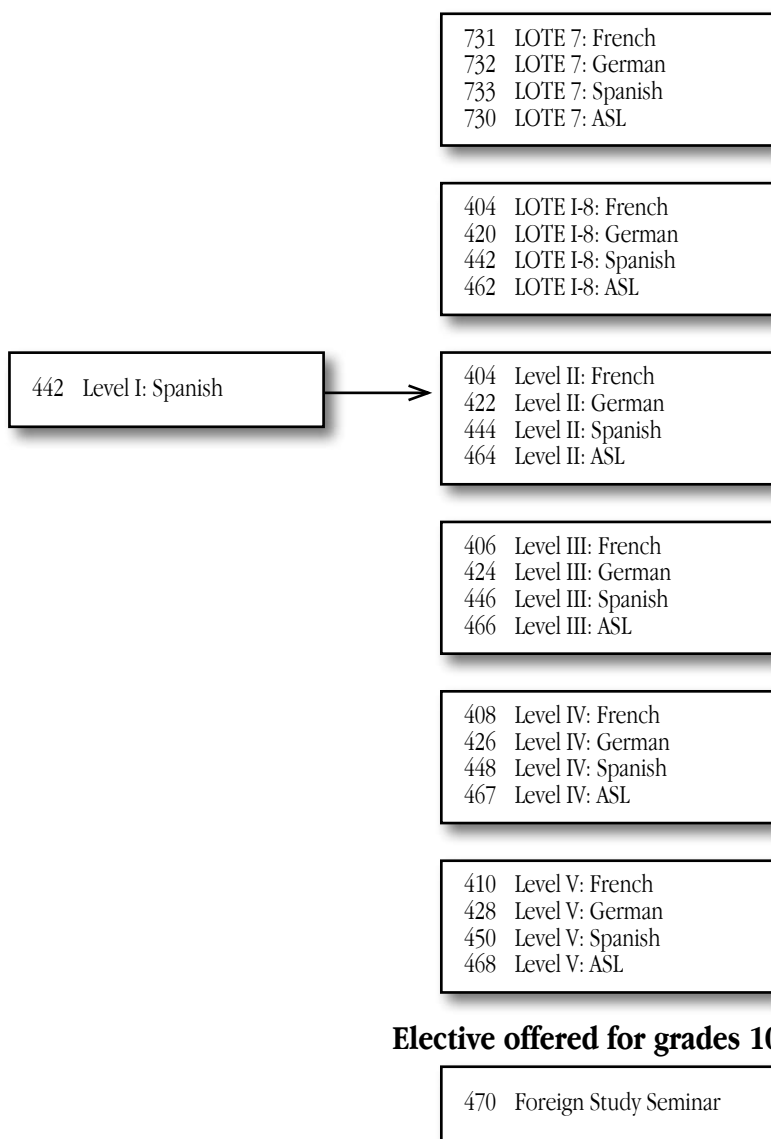
LANGUAGES OTHER THAN ENGLISH

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 using the LOTE sequence, 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

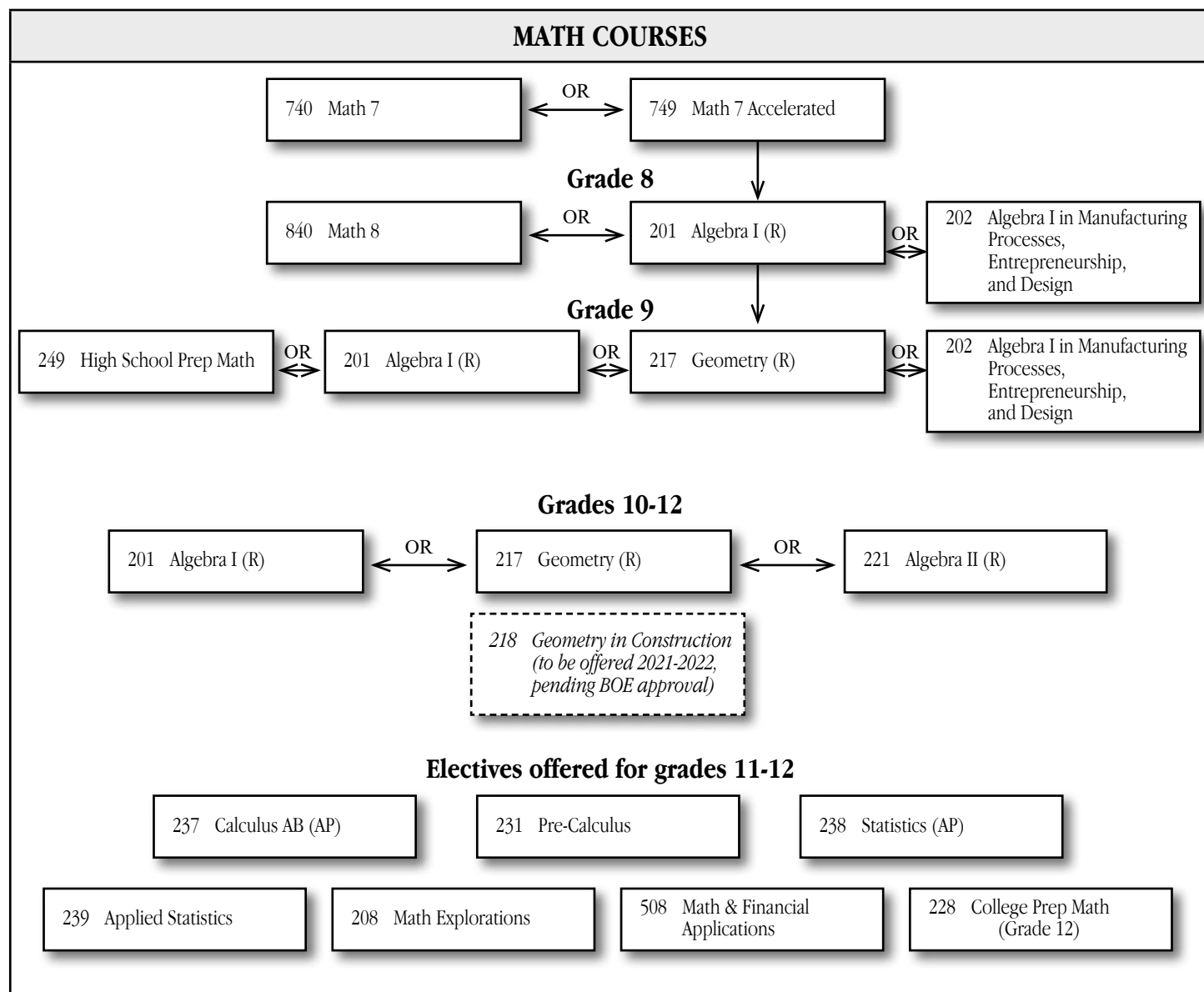


MATHEMATICS

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.

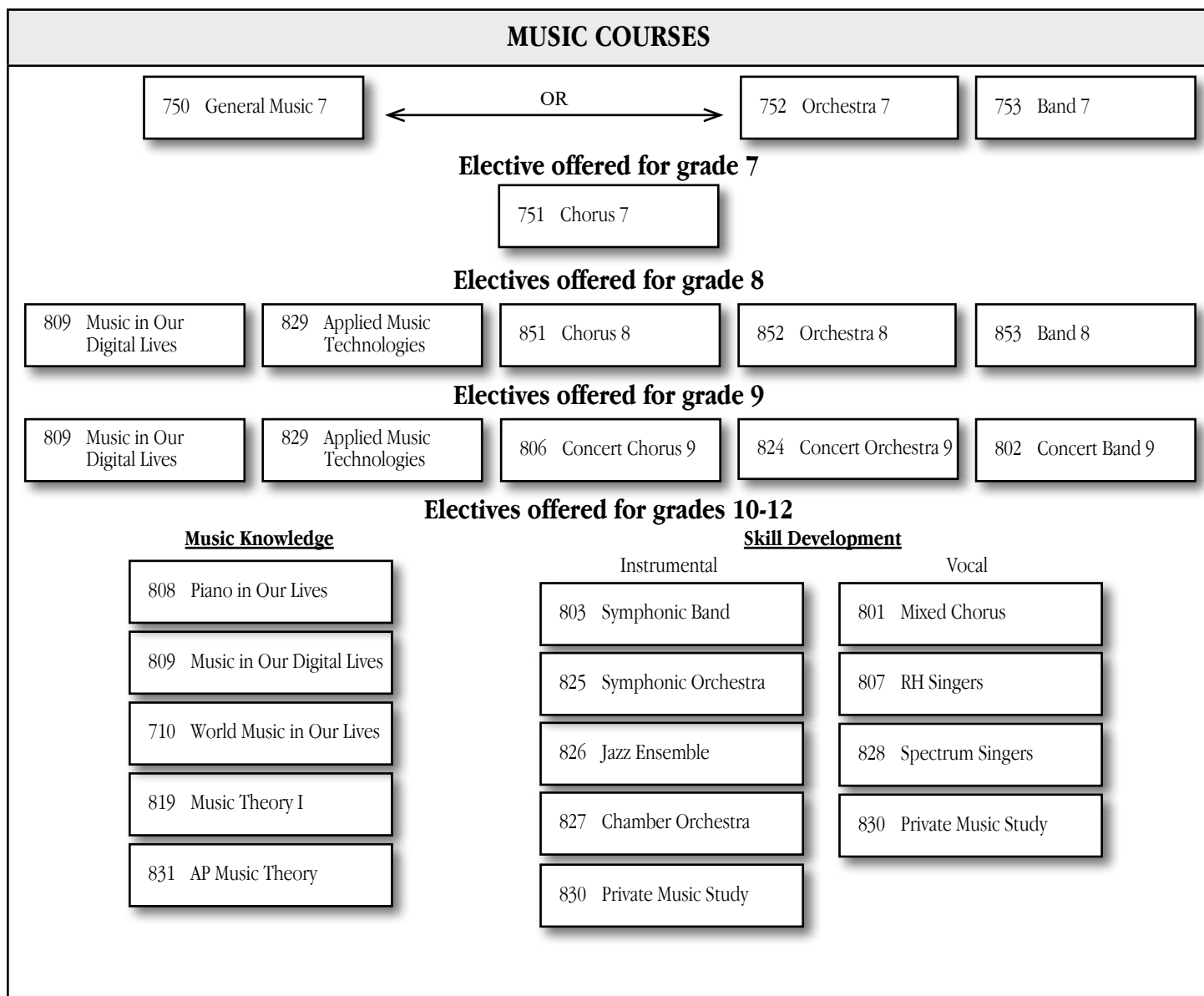


MUSIC

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 complete the required sequence of arts instruction in Chorus 7 or General Music 7. Music elective courses at the junior high level allow students to continue their development in both an instrumental (Band or Orchestra) and a vocal ensemble (Chorus). All students must earn at least one high school credit in music or art in order to graduate. Music In Our Digital Lives satisfies the one credit requirement. Applied Music Technologies or Band 9 or Chorus 9 or Orchestra 9 satisfies 0.5 of the required credit.

At the high school, music courses that satisfy the graduation requirement are listed on pages 46-48 and include a combination of performing ensembles and general music courses. Students interested in pursuing a Regents with Advanced Designation in the Arts must take a 5-unit sequence that includes a combination of courses in both Skill Development (performing ensembles) and Musical Knowledge (general music). Students who complete a five-unit sequence in Music are not required to complete the additional two units of a language other than English.



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

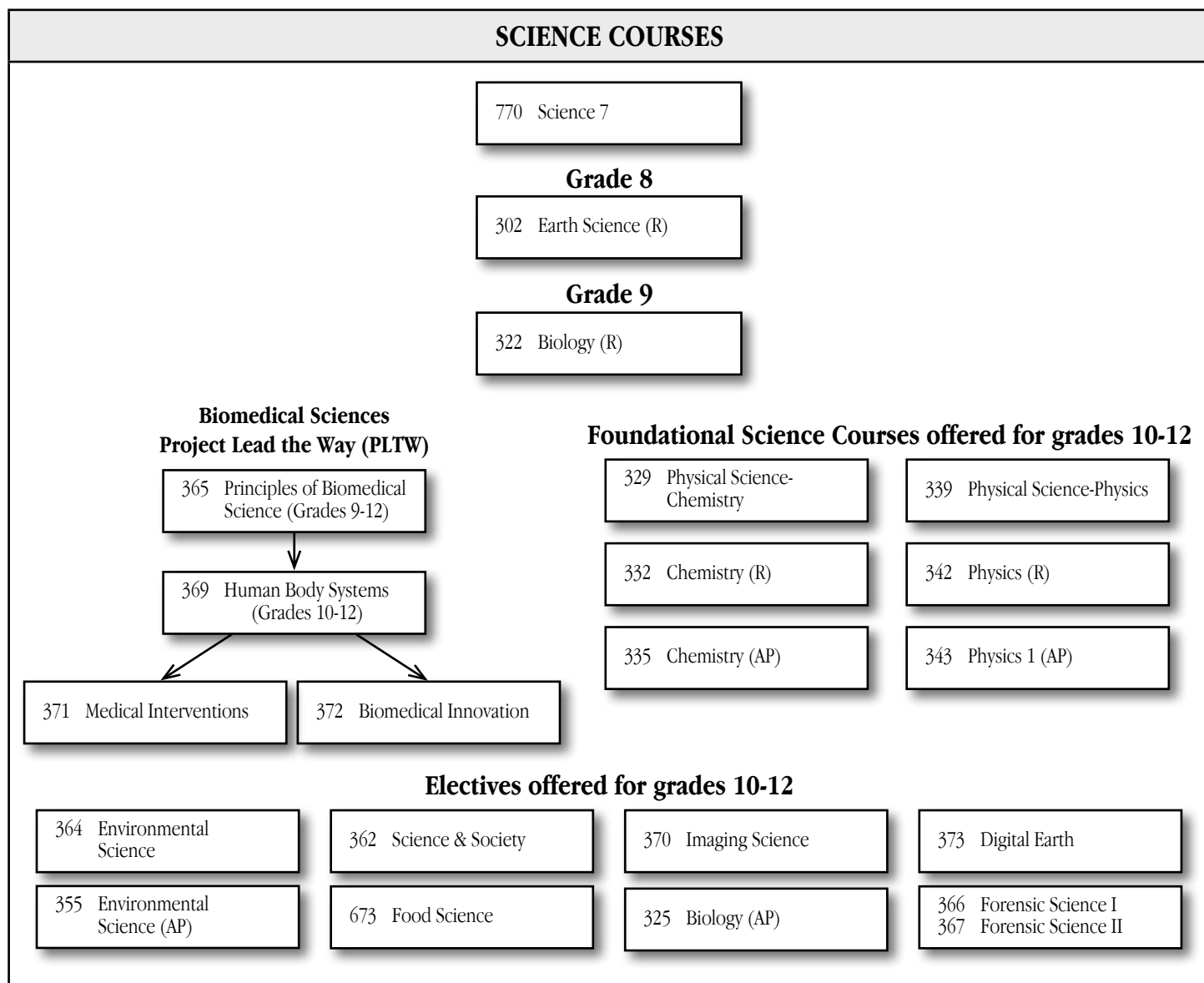
919 Physical Education 11
920

919 Physical Education 12
920

SCIENCE

All Rush-Henrietta students take Science 7 (in seventh grade), Earth Science (in eighth grade), and Biology (in ninth grade) in their junior high program. Students are required to take at least one additional science course during grades 10-12. Courses can be selected based on the student's individual interests and aptitude. A variety of courses are offered within our science program of study as students may select from science elective-level, New York State Regents-level, College Board approved AP-level, and a Biomedical Project Lead the Way sequence. All of our science courses provide students with a meaningful path to learn more about science.

The Rush-Henrietta science program offers continued investigation into topics related to both life and physical sciences so that students can construct a better understanding of the world around them. Practices that are common to both scientists and engineers are emphasized in all of our science courses such as: asking questions and defining problems; using mathematical and computational thinking; constructing explanations and designing solutions; engaging in arguments from evidence; developing and using models; planning and carrying out investigations; analyzing and interpreting data; and obtaining, evaluating, and communicating information. A student-centered, laboratory-based approach is used to help students answer questions about their world while preparing them for college and career readiness.



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 are required to earn four credits in Social Studies and pass both Regents exams.

Students interested in pursuing rigorous college level coursework in Social Studies will be encouraged to take advantage of the AP World History, AP United States History, AP Government and Politics, and AP Economics (Micro and Macro) courses.

SOCIAL STUDIES COURSES

780 Social Studies 7

880 Social Studies 8

Grade 9

OR

114 World History
Pre-AP 9 (H)

113 Global History and
Geography 9 (R)

Grade 10

OR

158 World History 10 (AP)

123 Global History and
Geography 10 (R)

Grade 11

OR

142 U.S. History (AP)

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

Grade 12

OR

156 Economics (AP)

136 Economics (R)

OR

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

159 AP Psychology

TECHNOLOGY

Technology education allows students to apply critical thinking skills and knowledge that connect math, science, and technology. By engaging in projects and problem-based learning, students will develop skills such as systems thinking, creativity, collaboration, and effective communication. Our program includes electives designed to provide students with the opportunity to explore many aspects of both modern and traditional technologies.

In Rush-Henrietta, students are required to take Technology 7 in seventh grade. Students entering eighth grade who demonstrate an interest in technology have an opportunity to pursue additional coursework. In ninth grade, students can choose to take the first Pre-Engineering Project Lead The Way (PLTW) course, Introduction to Engineering Design. At the high school level, students may choose from a variety of technology electives in addition to continuing the PLTW sequence.

TECHNOLOGY COURSES

790 Technology 7

Electives offered for grades 8-9

890 Applied Technology
(grade 8 elective)

623 Introduction to Robotics
(grade 9 elective)

600 Production Systems:
Introduction to Tools
and Machines
(grades 8-9 elective)

611 Introduction to
Engineering Design
(grade 9 elective)

Electives offered for grades 10-12

Materials Processing

600 Production Systems:
Introduction to Tools
and Machines

635 Wood Technology I

636 Wood Technology II

641 Metal Technology

Trades

606 Engine Operation and
Maintenance

643 Construction Systems

607 Basic Electronics

Advanced Technologies

242 Computer Programming

370 Imaging Science

624 Advanced Robotics
Systems

Pre-Engineering Project Lead the Way (PLTW) Courses

611 Introduction to Engineering
Design (Grades 9-12)

609 Digital Electronics
(Grades 10-12)

642 Computer Integrated
Manufacturing (Grades 10-12)

610 Principles of Engineering
(Grades 10-12)

618 Engineering Design and
Development (Grades 10-12)



Burger Junior High School

Junior High School

At the junior high schools, all students will engage in courses to learn about their interests and strengths while earning essential credits for high school graduation.



Roth Junior High School

Academic program overviews, charts, and other content area information for grades 7-12 are available on pages 4-15.

JUNIOR HIGH COURSE PLANNING

Required junior high courses are indicated in **bold** font.
Individual programs may vary due to a student's interests and needs.

Subject	7th Grade	8th Grade	9th Grade
English	ELA 7	ELA 8	English 9R (1.0)
Mathematics	Math 7 or Math 7 Accelerated	Math 8 or Algebra 1 (1.0) or Algebra I in Manufacturing Processes, Entrepreneurship, and Design (1.0 math and 1.0 tech.)	Algebra 1 (1.0) or Algebra I in Manufacturing Processes, Entrepreneurship, and Design (1.0 math and 1.0 tech.) or Geometry (1.0)
Science	Science 7	Earth Science (1.0)	Biology (1.0) Principles of Biomedical Sciences (1.0) (PLTW)
Social Studies	Social Studies 7	Social Studies 8	Global History & Geo 9 (R) (1.0) or World History Pre-AP 9 (H) (1.0)
Art	Art 7	Foundations in Art (1.0) ** Applied Art Technologies (0.5) **	Foundations in Art (1.0) ** Drawing and Painting I (0.5) Digital Imaging & Photo I (0.5) Applied Art Technologies (0.5) **
Business		Business Entrepreneurship (0.5) *	Business Entrepreneurship (0.5) Principles of Marketing (0.5) Computer Applications: Mastering Microsoft! (0.5)
Family & Consumer Science	Family and Consumer Science 7 *	Family and Consumer Science 8 *	
Health	Junior High Health	The Teenage Brain (0.5) *	The Teenage Brain (0.5)
Languages Other Than English (LOTE)	LOTE 7 <i>ASL, French, German, Spanish</i>	LOTE I-8 (1.0) <i>ASL, French, German, Spanish</i>	LOTE I: Spanish (1.0) LOTE II (1.0) <i>ASL, French, German, Spanish</i>
Music	General Music 7 or Orchestra 7/Band 7 Chorus 7	Music in Our Digital Lives (1.0) ** Chorus 8 Orchestra 8 Band 8 Applied Music Technologies (0.5) **	Music in Our Digital Lives (1.0) ** Concert Chorus 9 (0.5) ** Concert Orchestra 9 (0.5) ** Concert Band 9 (0.5) ** Applied Music Technologies (0.5) **
Physical Education	Physical Education 7	Physical Education 8	Physical Education 9
Technology	Junior High Technology *	Applied Technology (0.5)* Production Systems (0.5) * Algebra I in Manufacturing Processes, Entrepreneurship, and Design (1.0 math and 1.0 tech.)	Production Systems (0.5) Introduction to Robotics (0.5) Introduction to Engineering and Design (1.0) Algebra I in Manufacturing Processes, Entrepreneurship, and Design (1.0 math and 1.0 tech.)

() Credit earned toward graduation.

* Students must take four (4) CTE courses by the end of 8th grade to satisfy the NYSED CTE units of study requirement.

** Satisfies the NYS Arts requirement for the 1.0 credit toward high school graduation.

7TH GRADE COURSES

720 ELA 7

Grade Level: 7

Course Length: full year

Students taking ELA 7 will learn skills that enhance their reading and writing abilities. Building on the skills previously learned, students will read a selection of texts that will help them develop the ability to infer, synthesize, and cite evidence. Students will broaden their knowledge as they venture into a variety of thematic units such as Generations, Turning Points, and People and the Planet. Some of the core texts that students will enjoy may include *Stand Tall*, *The Outsiders*, and *My Side of the Mountain*.

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 previous years likely have been recommended to take Math 7 Accelerated. In this class, students will learn seventh and eighth grade math concepts in one year at an accelerated pace. Those who do well in this course will be prepared to take Algebra I in eighth grade.

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 on 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 through the end of the Civil War. The course incorporates geography, economic, social, and political trends, and is divided into eight units of instruction. The key topics covered are geography of North America, Native Americans, Colonization of the Americas, The Revolutionary War and Independence, the Constitution, struggles faced by the new government, expansion and moving West, and the Civil War. Students will learn the skills of causation, contextualization, chronological and geographic reasoning, and gathering and interpreting evidence.

700 ART 7

Grade Level: 7

Course Length: one semester

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 FAMILY AND CONSUMER SCIENCE 7

Grade Level: 7

Course Length: one semester

Family and consumer science 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 interest, and develop plans that will help them in meeting their career goals. Students also will learn how to be active and engaged consumers while developing their understanding of concepts related to nutrition, wellness, social media marketing, and financial literacy. This course satisfies the NYSED Career and Technical Education units of study requirement.

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.

Students who participate in Orchestra 7/Band 7 are not required to take General Music 7.

775 JUNIOR HIGH HEALTH

Grade Level: 7

Course Length: one semester

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.

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 and weekly instrumental lessons are required for participation in this course.

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

Grade Level: 7

Course Length: full year

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 (Grades 7-8) 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.

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 and weekly instrumental lessons are required for participation in this course.

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.

790 JUNIOR HIGH TECHNOLOGY

Grade Level: 7

Course Length: one semester

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 “virtual images” of multiple objects, and investigate computer-based machinery that brings the objects to production. This course satisfies the NYSED Career and Technical Education units of study requirement.

760 PHYSICAL EDUCATION 7

Grade Level: 7

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.

8TH GRADE COURSES

820 ELA 8

Grade Level: 8
Course Length: full year

Students taking ELA 8 learn skills that will enhance their reading and writing abilities. Building on the skills previously learned, students will read a selection of texts that will help them develop the ability to infer, synthesize, and cite evidence. Students will broaden their knowledge as they venture into a variety of thematic units, such as Rites of Passage, What Matters, Human Intelligence, and Point of View and Perspective. Some of the core texts students may enjoy include *Rules of the Road*, *Ender's Game*, and *Does My Head Look Big in This?*

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 Algebra I in eighth grade. Taking this course enables students to earn a high school math 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.

Prerequisite: Math 7 Accelerated

202 ALGEBRA I IN MANUFACTURING PROCESSES, ENTREPRENEURSHIP, AND DESIGN (R)

Grade Level: 8-9
Course Length: full year; two periods a day
Credits: 1.0 Math and 1.0 Technology

Through the implementation of a student-created-and-maintained business, students will learn all objectives and standards required for Algebra 1 Regents examination at the conclusion of the school year. The Algebra I standards will be taught through real-world, project-based lessons, labs, and activities creating a richer, more robust learning environment for students. One credit is earned for math and one credit is earned for technology.

The course culminates in a Regents exam that is required for a Regents diploma.

Prerequisite: Math 7 Accelerated

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 also will 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 NYSED regulations, students are required to successfully complete 1,200 minutes of lab experience in order to take the Earth Science Regents exam given in June of the course year. To earn high school credit, students must pass both the course and Regents exam.

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. The curriculum is arranged chronologically, beginning with Reconstruction and ending in the present times looking at current issues the United States faces. The course will incorporate geography, economic, social, and political trends, and is divided into nine units of instruction. The topics covered are Reconstruction, Industrialization, Immigration and Migration, WWI, the 1920's and the Great Depression, WWII, Post World War II America, the Cold War, Civil Rights Movement, and current issues facing America. Students will continue to learn the skills of causation, contextualization, chronological and geographic reasoning, and gathering and interpreting evidence.

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 satisfies the graduation requirement of one credit for art/music. Completion of this foundation course is a pre-requisite for advanced art electives and for students who are completing a Regents with Advanced Designation in music/art.

810 FAMILY AND CONSUMER SCIENCE 8

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

Family and consumer science 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 members 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. This course satisfies the NYSED Career and Technical Education units of study requirement.

726 APPLIED ART TECHNOLOGIES

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

In this course, students will combine traditional fine art (drawing, painting, and sculpture) with digital art to create original works of art. Students create a logo and two-dimensional and three-dimensional works of fine art, and import these works into a virtual art gallery. Students use Google Earth as a tool to create an abstraction that morphs into a color rendition in the style of a famous artist. Students study the works of sculptors and create a sculpture of their own. Students create an architectural two-point perspective drawing in Adobe Illustrator which is then curated in Adobe Photoshop by adding the artwork to the walls and floor space.

This course satisfies 0.5 credits of the graduation requirement of one credit for art/music.

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. This course satisfies the NYSED Career and Technical Education units of study requirement.

**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. This course satisfies the NYSED Career and Technical Education units of study requirement.

404 LOTE I-8: FRENCH
420 LOTE I-8: GERMAN
442 LOTE I-8: SPANISH
462 LOTE I-8: ASL

Grade Level: 8
Course Length: full year
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.

This course is designed for students who have an interest in music beyond participating in an ensemble. Students will explore the creation of music using computer technologies with the Soundtrap and Ableton programs. Using the fundamentals of music, they will create and share songs/music of different styles and periods preparing them for use in other digital formats and applications.

This course satisfies the graduation requirement of one credit for art/music.

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 also may 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 and weekly instrumental lessons are required for participation in this course. Students who take Orchestra 8 also may 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 and weekly instrumental lessons are required for participation in this course. Students who take Band 8 also may participate in Chorus 8 as an elective course.

829 APPLIED MUSIC TECHNOLOGIES

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

Students in the Applied Music Technologies course will be introduced to the concepts of sound synthesis, learn the basics of audio software, and use problem-solving skills to resolve complex musical problems. Students will create loops and tracks, import and export audio, and use music software to improvise and to create arrangements and original works. Students will experience music-making, recording, mixing, and production in a learner-centered, technology-assisted environment.

This course satisfies 0.5 credits of the graduation requirement of one credit for music/art.

890 APPLIED TECHNOLOGY

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. This course satisfies the NYSED Career and Technical Education units of study requirement.

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.

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

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

This 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. This course satisfies the NYSED Career and Technical Education units of study requirement.

9TH GRADE COURSES

013 ENGLISH 9 (R) ❖

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

Grade 9 students will complete their junior high experience in English by considering how they can “take action” to improve the world. Students will read novels, plays, non-fiction text, and poetry, all with attention to comprehension, text-based response, vocabulary, and the use of literary devices. There are multiple core texts in this course that students may enjoy including *Born a Crime*, *Turning Fifteen on the Road to Freedom*, and *Romeo and Juliet*. Students will have many opportunities to express synthesis of ideas in writing in the form of analysis, essays, and responses to literature.

Students will complete the junior high International Society for Technology in Education (ISTE) capstone during their grade 9 year.

201 ALGEBRA I (R) ❖

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

In Algebra I, students will deepen their understanding of linear functions, how to graph them, interpret them in context and explain their behaviors. Students will be introduced to more complex functions that will prepare them for future math courses. Passing this course is a state requirement for graduation and a pre-requisite for future Regents math courses.

The course culminates in a Regents exam that is required for a Regents diploma.

202 ALGEBRA I IN MANUFACTURING PROCESSES, ENTREPRENEURSHIP, AND DESIGN (R)

Grade Level: 8-9
Course Length: full year; two periods a day
Credits: 1.0 Math and 1.0 Technology

Through the implementation of a student-created-and-maintained business, students will learn all objectives and standards required for Algebra 1 Regents examination at the conclusion of the school year. The Algebra I standards will be taught through real-world, project-based lessons, labs, and activities creating a richer, more robust learning environment for students. One credit is earned for math and one credit is earned for technology.

The course culminates in a Regents exam that is required for a Regents diploma.

Prerequisite: Math 7 Accelerated

217 GEOMETRY (R) ❖

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

In this Geometry course, 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 involving congruence and similarity. Students will apply their understanding of coordinate geometry and algebra to prove and understand relationships about lines, figures, and transformations.

The course culminates in a Regents exam.

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 concepts and skills foundational to Algebra I coursework. Students will practice the application of these concepts and skills providing them opportunity to build their confidence in preparing for future high school math courses. This course is designed to be a bridge for those students who would benefit from a focus on key vocabulary and critical concepts/skills necessary to be successful in Algebra I and higher-level mathematics.

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

322 BIOLOGY (R) ❖

Grade Level: 9
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 NYESD 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
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 in science
Recommended: Algebra I

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. A final examination is required.

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 satisfies the graduation requirement of one credit for art/music. Completion of this foundation course is a pre-requisite for advanced art electives and for students who are completing a Regents with Advanced Designation in music/art.

702 DIGITAL IMAGING & PHOTOGRAPHY I

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

In this course, students will learn about the evolution of photography and how digital photography has revolutionized the industry. Students will use digital cameras, computers, and Adobe programs to compose, capture, generate, and manipulate images. Students will grapple with the ethical use of images as they learn to create art using imagery and the tools of the digital age. Students who are interested in taking the Yearbook course are strongly encouraged to take this course.

Prerequisite: Foundations in Art

705 DRAWING & PAINTING I

Grade Level: 9-12
Course Length: full year, alternating days
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

549 PRINCIPLES OF MARKETING

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

726 APPLIED ART TECHNOLOGIES

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

In this course, students will combine traditional fine art (drawing, painting, and sculpture) with digital art to create original works of art. Students create a logo and two-dimensional and three-dimensional works of fine art, and import these works into a virtual art gallery. Students use Google Earth as a tool to create an abstraction that morphs into a color rendition in the style of a famous artist. Students study the works of sculptors and create a sculpture of their own. Students create an architectural two-point perspective drawing in Adobe Illustrator which is then curated in Adobe Photoshop by adding the artwork to the walls and floor space.

This course satisfies 0.5 credits of the graduation requirement of one credit for art/music.

**511 COMPUTER APPLICATIONS:
MASTERING MICROSOFT!**

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

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

**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.

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 and 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

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

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 beyond participating in an ensemble. Students will explore the creation of music using computer technologies with the Soundtrap and Ableton programs. Using the fundamentals of music, they will create and share songs/music of different styles and periods preparing them for use in other digital formats and applications.

This course satisfies the graduation requirement of one credit for music/art.

806 CONCERT CHORUS 9

Grade Level: 9

Course Length: full year, alternating days

Credits: 0.5

Junior 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 0.5 credits of the graduation requirement of one credit for music/art.

824 CONCERT ORCHESTRA 9

Grade Level: 9

Course Length: full year, alternating days

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 to 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 0.5 credits of the graduation requirement of one credit for music/art.

Prerequisite: Previous orchestra experience

802 CONCERT BAND 9

Grade Level: 9
 Course Length: full year, alternating days
 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. Outside practice will be necessary for students to master their instruments. 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 0.5 credits of the graduation requirement of one credit for music/art.

Prerequisite: Previous band experience

829 APPLIED MUSIC TECHNOLOGIES

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

Students in the Applied Music Technologies course will be introduced to the concepts of sound synthesis, learn the basics of audio software, and use problem-solving skills to resolve complex musical problems. Students will create loops and tracks, import and export audio, and use music software to improvise and to create arrangements and original works. Students will experience music-making, recording, mixing, and production in a learner-centered, technology-assisted environment.

This course satisfies 0.5 credits of the graduation requirement of one credit for music/art.

861 PHYSICAL EDUCATION 9

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

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

This 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 INTRODUCTION TO ROBOTICS

Grade Level: 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.

611 INTRODUCTION TO ENGINEERING DESIGN

Grade Level: 9
 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



Rush-Henrietta Senior High School

Senior High School

At the Senior High School, all students will graduate prepared for college or career success by completing a pathway that reflects their interests and strengths.

Academic program overviews, charts, and other content area information for grades 7-12 are available on pages 4-15.

701 FOUNDATIONS IN ART

Grade Level: 10-12
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 satisfies the graduation requirement of one credit of art/music.

702 DIGITAL IMAGING & PHOTOGRAPHY I

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

In this course, students will learn about the evolution of photography and how digital photography has revolutionized the industry. Students will use digital cameras, computers, and Adobe programs to compose, capture, generate, and manipulate images. Students will grapple with the ethical use of images as they learn to create art using imagery and the tools of the digital age. Students who are interested in taking the Yearbook course are strongly encouraged to take this course.

704 DIGITAL IMAGING & PHOTOGRAPHY II

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

For students with an understanding of photography basics, Digital Imaging and Photography II emphasizes independence and the development of the individual creative aesthetic. Students in Digital Imaging II learn advanced image manipulation techniques and use advanced photo editing and imaging programs, such as those available in Adobe CC. Students study notable photographers and learn the different purposes and careers associated with digital photography. They will combine fine art techniques and concepts from drawing, painting, and crafting with digital images to create art and imagery that conveys meaning. Students will analyze, select, and critique their personal artwork for a portfolio to chronicle their artistic development.

Prerequisite: Digital Imaging & Photography I

713 CRAFTS

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.

705 DRAWING & PAINTING I

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

706 DRAWING & PAINTING II

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

Students will develop facility in basic techniques and learn more advanced tools, techniques, and media, specific to drawing and painting. Students will develop visual problem-solving skills as they are given design and composition challenges to solve. Students will develop inquiry skills as they solve these problems and push the boundaries of thought, tools, and media. Students will also develop communication skills as they curate and present their work to peers and professionals, articulating their process. Sketchbooks and digital portfolio will be required. Major artist, historical works, and cross-content connections will be explored.

Prerequisite: Foundations in Art

711 CERAMICS I

Grade Level: 10-12
Course Length: one semester
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.

712 CERAMICS II

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

Students who have completed Ceramics I will find that Ceramics II allows them time in the studio with access to further develop foundational skills of working with clay and the pottery wheel. Students will explore additional ceramics tools and techniques, become versed in the properties of glazes, surface applications. Students will push the boundaries of functional ceramic art and explore aesthetic ceramic creation. They will develop their voice and, through experimentation, practice, and persistence, design and produce works that demonstrate an acquisition of skills and knowledge in this chosen art form.

Prerequisite: Ceramics I

715 JEWELRY & METAL CRAFTS

Grade Level: 10-12
Course Length: one semester
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.

Prerequisite: Foundations in Art

717 FASHION DESIGN AND ILLUSTRATION

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

In this semester-long course, students will enjoy a brief history of fashion before embarking on a series of learning experiences designed to prepare them for garment design and production. Students will learn the basics of textiles and fibers, color theory, how to use digital tools to bring their fashion illustrations to life, and design innovation skills. Students will learn the art of illustrating postures, figures, draping, and textures. Students will also explore innovations in wearable art, as well as an introduction to fashion marketing and production.

Prerequisite: Foundations in Art

718 INTERIOR DESIGN

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

In this semester-long course, students will delve into the history of interior design, including period styles and recent developments in sustainability. Students will explore space planning using perspective, weight, scale, color, texture, and form to bring a client's vision from concept to storyboard to illustration and/or 3D modeling. Students will use the art elements and design principles to bring artistic vision to life. Students will draw upon their strengths and learn how to extend a client's perspective using the elements and principles, while developing a personal aesthetic.

Prerequisite: Foundations in Art

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)

719 STUDIO IN GRAPHIC DESIGN

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

721 ADVANCED DIGITAL IMAGING

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: Digital Imaging and Photography

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. 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.

Prerequisite: Foundations in Art (Digital Imaging Preferred)

707 ADVANCED STUDIO IN ART

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

Recommended: Drawing & Painting I and Drawing & Painting II.

723 PORTFOLIO PREPARATION

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

This course is designed to help students develop, organize, and perfect their portfolio using 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 or Studio Drawing/Painting (AP).

708 STUDIO DRAWING/PAINTING (AP)

Grade Level: 11-12
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.

Prerequisite: Advanced Studio in Art or permission of the AP teacher

Recommended: Two credits in art, portfolio review, and recommendation of the AP teacher. Concurrent enrollment in Advanced Studio in Art or Portfolio Preparation.

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: 10-12
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).

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

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: 10-12
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

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

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 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

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, which may include *The Palace Thief*, *Macbeth*, *Behind The Beautiful Forevers*, and *How Dare the Sun Rise*. 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.

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 selection of core texts including, *The Great Gatsby*, *The Crucible*, and more. 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 conclusion of the course, students will take the New York State Comprehensive Regents Exam in English. This is an exam that measures the proficiency of high school students to gauge their success in college and career. This course provides ongoing reinforcement of these skills.

024 ENGLISH 10 (H) ❖

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

This 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. Students will engage in a greater depth and complexity of text with a strong pursuit of learning and independence. Students will read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, critical thinking, literary devices, and deep analysis. Students will have opportunities to analyze rhetorical appeals while they debate modern issues and discuss societal conflict and personal integrity. Texts studied in this course may include *Fahrenheit 451* by Ray Bradbury, *Lord of the Flies* by William Golding, and Shakespeare’s *Macbeth*. Required assessments in this course are designed to prepare students with the skills and rigor necessary for success in AP English classes in grade 11.

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 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 also will be emphasized.

673 FOOD SCIENCE

Grade Level: 10-12
Course Length: full year
Credits: 1.0 (elective credit OR science credit)

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.

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-9

442 SPANISH ❖

Grade Level: 10-12
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. A local exam is given at the conclusion of the course.

LEVEL II

404 FRENCH ❖

422 GERMAN ❖

444 SPANISH ❖

Grade Level: 10-12
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

464 AMERICAN SIGN LANGUAGE II ❖

Grade Level: 10-12
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

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

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

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

467 AMERICAN SIGN LANGUAGE IV (H) ❖

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

468 AMERICAN SIGN LANGUAGE V (H) ❖

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

Students will increase their fluency in American Sign Language with emphasis on conversation skills, linguistics, expansion of knowledge of deaf culture, and interaction with the local Rochester deaf community. Students will continue to gain the knowledge and understanding to appreciate deaf culture and its contributions to the world. Through works by contemporary artists and contact with native speakers, students will enhance their range of fluency and structure in sign production. Students will engage in extended discussions with limited English references when signing, learn entry-level interpreting skills, and compose their own ASL narratives.

Through consistent use of the target language, students will deepen their command of vocabulary, idioms, classifiers, and deepen their appreciation for deaf culture.

A final exam is given at the end 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 IV American Sign Language

LEVEL V**410 FRENCH (H) ❖****428 GERMAN (H) ❖****450 SPANISH (H) ❖**

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

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

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

Corequisite: Must be enrolled in an appropriate LOTE course

MATHEMATICS

201 ALGEBRA I (R) ❖

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

In Algebra I, students will deepen their understanding of linear functions, how to graph them, interpret them in context and explain their behaviors. Students will be introduced to more complex functions that will prepare them for future math courses. Passing this course is a NYS requirement for graduation and a prerequisite for future Regents math courses.

The course culminates in a NYS Regents exam that is required for a Regents diploma.

217 GEOMETRY (R) ❖

Grade Level: 10-11
Course Length: full year
Credits: 1.0

In this Geometry course, 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 involving congruence and similarity. Students will apply their understanding of coordinate geometry and algebra to prove and understand relationships about lines, figures, and transformations.

The course culminates in a NYS Regents exam.

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 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.

The course culminates in a NYS Regents exam.

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

208 MATH EXPLORATIONS ❖

Grade Level: 11-12
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. Students will engage in problem-solving strategies, writing equations and modeling situations mathematically. Topics will include the investigation of problem-solving strategies, numeration systems, number theory, statistics and probability, and a variety of algebra concepts designed to reinforce prior learning and prepare students for future algebra courses. Students will use the graphing calculator to assist their learning. Students will be expected to prepare solutions to problems and communicate their ideas using appropriate mathematical vocabulary.

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

This course is not intended for students who have successfully passed the Algebra II Regents exam.

508 MATH AND FINANCIAL APPLICATIONS

Grade Level: 11-12
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: gross income, net income, budgeting, loans, bank accounts, credit investments and insurance.

Prerequisite: Two credits in math and passing the Algebra I Regents exam

This course is not intended for students who have successfully passed the Algebra II 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, rational logarithmic and exponential functions, along with the graphs and application of trigonometry. The use of a graphing calculator is integrated throughout the course in addition to skills without the use of a calculator.

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: 11-12
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 foundational concepts of 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.

Prerequisite: One credit in Pre-Calculus

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

239 APPLIED STATISTICS

Grade Level: 11-12
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

228 COLLEGE PREP MATH

Grade Level: 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. This course focuses on improving intermediate/foundational math skills with higher applications. This is a blended learning course where students complete a required set of online modules as well as activities tailored to the individual student. They work with their teacher during class on activities that show them how the math they have learned can be used. 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

This course is not intended for students who have successfully passed the Algebra II 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.

809 MUSIC IN OUR DIGITAL LIVES

Grade Level: 10-12
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 beyond participating in an ensemble. Students will explore the creation of music using computer technologies with the Soundtrap and Ableton programs. Using the fundamentals of music, they will create and share songs/music of different styles and periods preparing them for use in other digital formats and applications.

This course satisfies the graduation requirement of one credit for music/art.

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.

831 AP MUSIC THEORY

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

Aspects of melody, harmony, texture, rhythm, form, musical analysis, composition and to some extent, history and style, are integrated to help students develop the ability to recognize, understand, and describe the basic materials and processes of music presented in a score. Musicianship skills such as dictation, listening skills, sight-singing, and keyboard harmony are an important part of this theory course. Students should possess the basic ability to read and write musical notation prior to taking this course. It is also strongly recommended that the student possess basic performance skills in voice or on an instrument.

Prerequisite: Music Theory I and/or three years of a performing ensemble with recommendation of the AP teacher.

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: Seating audition (held in spring of the previous school year; students new to the district may audition prior to the first day of school) 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: Seating audition (held in spring of the previous school year; students new to the district may audition prior to the first day of school) and/or consent of the conductor.

801 MIXED CHORUS

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

Senior High Mixed 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. Mixed Chorus is a performance-based course.

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

807 RH SINGERS

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

RH 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 RH Singers perform, compete, and travel on a regular basis, and are evaluated eight times yearly. Parental involvement in the Friends of the RH Singers activities is highly encouraged.

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

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.

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 RH 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: 10-12
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.

364 ENVIRONMENTAL SCIENCE ❖

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 as they engage in the study of environmental concepts. This is a commencement-level course as outlined by the New York State Math Science and Technology 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 (one bearing Regents credit) 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 Math Science and Technology 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 (one bearing Regents credit) 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 (one bearing Regents credit) 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 (one bearing Regents credit) 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 Math Science and Technology 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 (one bearing Regents credit) and one credit in Algebra I

673 FOOD SCIENCE

Grade Level: 10-12
Course Length: full year
Credits: 1.0 (science credit OR elective credit)

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 1,200 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 1,200 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: biochemistry, cells, cellular energetics, heredity, molecular genetics, evolutionary biology, homeostasis, cell communication, and ecology. The class includes lectures, AP-required laboratory exercises, and rigorous homework. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Two Regents credits in science with successful completion of Regents Biology and Regents Chemistry

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

Prerequisite: Successful completion of Regents Chemistry with successful completion or concurrent enrollment in Algebra II

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, AP-required laboratory exercises, and rigorous 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: Successful completion of Regents Earth Science, Regents Biology, and Algebra I

343 PHYSICS 1 (AP) ♦

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

This course is equivalent to an introductory college-level class of physics. 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 AP-required lab projects. The Physics 1 Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Successful completion of geometry and successful completion or concurrent enrollment in Algebra II

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 Math, Science, and Technology (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 bearing Regents credit); one credit in Algebra I and 0.5 credit in Forensics I

370 IMAGING SCIENCE

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

This Science, Technology, Engineering, and Math (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 bearing Regents credit); one credit 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 (one bearing Regents credit) in science and successful completion of Algebra I.

Project Lead the Way (PLTW)

This 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 secondary program course guide.

**Biomedical Sciences sequence
courses are listed on the next page.**

**Pre-engineering sequence
courses are listed on p. 57-58.**

Project Lead the Way (PLTW) Biomedical Science Sequence

365 PRINCIPLES OF BIOMEDICAL SCIENCES

Grade Level: 10-12
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 Regents-bearing science credit

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

COLLEGE CREDIT FOR THE PLTW BIOMEDICAL SCIENCE COURSES IN 3 EASY STEPS



1. Go to www.rhnet.org/biomedicalpltw to see potential college credit opportunities.
2. Work with your academic advisor at the college you plan to attend to choose a PLTW transfer credit option that will be accepted there. This step is imperative to ensure that the credit you obtain transfers to the college you plan to attend.
3. Contact your Rush-Henrietta School Counselor to verify test scores, grades, and to obtain signatures for your PLTW transfer credit application. You may be asked to share your End-of-Course Assessment scores with the college you plan to attend through the PLTW portal. This one-page guide (<http://www.rhnet.org/pltwguide>) explains how to do that.

Timeframe: Refer to the deadlines posted by the partner colleges at www.rhnet.org/biomedicalpltw. Typically this credit is applied for by the end of your first semester in college.

For additional questions and support contact Rush-Henrietta's Director of Science and Technology.

Final approval of your transfer credit will be at the discretion of the college you choose to attend.

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, students will take the Regents Examination in Global History and Geography. This examination covers content from the Global 10 course.

158 WORLD HISTORY 10 (AP) ❖

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

This college-level World History course is 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 13th 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.

The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May. Students are required to take the New York State Regents Exam in Global History and Geography.

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, students will take the Regents examination in U.S. History and Government.

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. Students are required to take the New York State Regents exam in U.S. History and Government.

136 ECONOMICS (R) ❖

Grade Level: 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

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.

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 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

146 ONLINE CIVICS AND CITIZENSHIP (R) ❖

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

This online course is for self-motivated students who are interested in experiencing online learning. Students will interact with their teacher and peers in an online learning environment. Using the Google Classroom platform, students receive instruction, participate in online discussions, and submit all assignments electronically. This is a full online course. There is no traditional class time scheduled.

The focus of this course 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

This online course provides flexibility in student schedules.

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.

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

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.

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.

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.

159 AP PSYCHOLOGY

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

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and animals. The course emphasizes the history of psychology as a science, the different explanations of human behavior, and the modern research methods utilized by psychologists. Students also will learn about the importance of ethics in both scientific research and the practice of psychology.

The following areas of psychology are studied in the course: History and Approaches to Psychology; Research Methods; Biological Bases of Behavior; Sensation and Perception; States of Consciousness; Learning; Cognition; Motivation and Emotion; Developmental Psychology; Personality; Testing and Individual Differences; Abnormal Behavior; Treatment of Abnormal Behavior; and Social Psychology.

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

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: 10-12
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: full year
Credits: 1.0

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 I

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 ADVANCED ROBOTICS SYSTEMS

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.

No prerequisite required.

Project Lead the Way (PLTW)

This 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 secondary program course guide.

**Biomedical Sciences sequence
courses are listed on p. 52.**

Pre-Engineering Sequence**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

Eastern Monroe Career Center (EMCC) Program



Through Monroe One BOCES

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 a.m.

Session II - 11:45 a.m. - 1:50 p.m.

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 an 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

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

AUTOMATED MANUFACTURING AND MACHINING: TWO-YEAR PROGRAM

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.

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 Exams; Precision Machining-National Occupational Competency Testing Institute Test or National Institute of Metal Working Skills (NIMS); National Institute of Metal Working Skills (NIMS) Certification

AUTO SERVICES: TWO-YEAR PROGRAM

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

Employment opportunities upon completion: Entry-level auto service 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

CISCO NETWORKING ACADEMY: ONE-YEAR PROGRAM

Students learn skills in the areas of basic network cabling, network security, wireless implementation and advanced routing and design. Students work independently as they acquire the skills necessary to become CISCO certified. Students need to develop and demonstrate strong personal time-management skills and problem-solving skills.

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

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

Industry-based 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 PROGRAM

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

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: Precision Exams; National Occupational Competency Testing Institute (NOCTI) exam - Collision Repair/Refinishing Technology; Preparation for I-CAR certification

CONSTRUCTION TRADES: TWO-YEAR PROGRAM

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

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: Precision Exams; Occupational Safety and Health Administration (OSHA) 10-hour certification

CRIMINAL JUSTICE: TWO-YEAR PROGRAM

Through a blending of rigorous academics and experiential activities, students explore the history of law enforcement and develop an understanding of civil and criminal law. Students review court cases and outcomes as they relate to law enforcement at the local, state and national level. Students use forensic science as a means to investigate simulated crime scenes. Guest speakers from the criminal justice field and visits to numerous agencies deepen the student's understanding of this career field.

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

Further educational opportunities: Post-secondary programs in criminal justice, corrections administration, psychology, criminology, and political science

Industry-based exam/certifications: Precision Exams; 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

COSMETOLOGY: TWO-YEAR PROGRAM

Students learn the latest techniques in hair cutting, styling, and chemical services, as well as nail and skin care. Students practice cuts and styles on mannequins and classmates, before offering services to customers in our school-sponsored salon. The curriculum includes skill development in the areas of communication, organization, and time management, which are essential to success in the industry.

Students attend the program for two years, including a summer session between the junior and senior year. 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

CULINARY ARTS: TWO-YEAR PROGRAM

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

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: Precision Exams; National Occupational Competency Testing Institute (NOCTI) exam - Culinary Arts Cook Level-2; Pro-Start exam; ServSafe exam; Pro-Start Certificate, ServSafe Certificate

PC REPAIR & NETWORK CABLING: ONE-YEAR PROGRAM

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

Employment opportunities upon completion: Entry-level 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: Precision Exams; National Occupational Competency Testing Institute (NOCTI) exam - Computer Repair Technology; Preparation for CompTIA A+ and CompTIA Network+ exams

PROFESSIONAL HEALTH CAREERS: TWO-YEAR PROGRAM

Students are provided with an exploratory experience of emerging health occupations. Students study the concept of "Life Cycle" and identify factors contributing to positive personal health. The basic course integrates the NYS High School health curriculum. In the advanced year, students develop the skills to obtain entry-level employment in the health care field. This program is also designed to help students enhance their leadership, communication and management skills. Professional behavior is imbedded throughout. After successful completion of the program, students will have met the clinical and classroom requirements for the NYS Nursing Assistant exam.

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: Precision Exams; NYS Nursing Assistant Certification (seniors only) and CPR

TRADE ELECTRICITY: TWO-YEAR PROGRAM

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

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

VISUAL COMMUNICATION AND PHOTOGRAPHY: TWO-YEAR PROGRAM

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

WELDING & FABRICATION: TWO-YEAR PROGRAM

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

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

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

Industry-based exam/certifications: Precision Exams

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: Students will choose one of these three options:		
	Minimum Units of Credit Needed:	LOTE Sequence Minimum Units of Credit Needed:	Music/Art Sequence Minimum Units of Credit Needed:	Career/Technical Education Sequence 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 Education (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 U.S. History and Government Regents (successful completion of an additional math or science regents exam may substitute one social studies regents exam)	Global History and Geography Regents U.S. History and Government Regents
Math	Algebra I Regents OR Geometry Regents OR Algebra II Regents	Algebra I Regents Geometry Regents 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 OR Local Level I R-H Final Exam	Local Level I R-H Final Exam Comprehensive Level III LOTE Exam

GRADUATION PATHWAY

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

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



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