

Rush-Henrietta

High School

2015-2016

Course

Descriptions

Rush-Henrietta High School

Course Description Book

Published annually for Rush-Henrietta students

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Mission Statement

The mission of the Rush-Henrietta Central School District is to foster the intellectual and personal development of Rush-Henrietta's students and to prepare them for responsible citizenship, productive employment, and life-long learning in a global community.

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 Organizational Development.

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.

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EDUCATIONAL PROGRAM OVERVIEW

A fundamental goal of the Rush-Henrietta secondary schools is to assist students in developing their talents, abilities, and interests to the greatest extent possible. The 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 directly into the workforce or the military. Among the most important decisions students make are those related to the program they will pursue. These decisions should be made after careful assessment of their abilities and interests and with the assistance of parents/guardians, counselors, and teachers.

The Rush-Henrietta Central School District has embedded the Common Core Learning Standards (CCLS) into our curriculum in order to provide a clear and consistent framework to prepare our students for college and the workforce. The CCLS define the knowledge and skills students should have within their K-12 instructional programs. It is vital for our students that they graduate with the skills to succeed in entry-level, credit-bearing academic college courses and/or in workforce training programs.

Our goal at Rush-Henrietta is to ensure all students graduate “college and career-ready.” What this means is that our students will be expected to achieve proficiency in reading, written communications, teamwork, critical thinking, and problem solving to be successful in any and all future endeavors. College and career readiness depends on more than English and mathematics content knowledge; to be successful after high school, all graduates must have acquired habits and skills that can only come from a rigorous, rich, and comprehensive high school curriculum.

Required texts and equipment will be provided to students. In some courses, parents/guardians may be required to purchase supplemental supplies and materials. If this poses a financial hardship, parents/guardians are encouraged to contact the counselor or assistant principal for assistance.

As students review this Course Description Book and make decisions for their high school coursework, they should ask themselves these questions:

- Am I taking a well-balanced academic program that will provide me with a good foundation for college or career training?
- Will my coursework prepare me for college-level math, writing, and science courses?
- Will I be challenged by the courses that I am selecting?
- Are my courses among the more rigorous ones available to me at my school?
- Overall, is my four-year high school program preparing me to be a lifelong learner in a global community?

Education is more valued and more necessary than ever before. It is very important that *all* high school graduates are prepared for some postsecondary education and/or training so they have options and opportunities for their futures.



Scheduling Information

Naviance Family Connection

Naviance Family Connection is a tool used to help students, grades 6 through 12, plan for a successful transition out of high school through course selection and career exploration.

Students use Family Connection to access information on careers and colleges, to complete self-directed surveys, to choose courses for the next school year, and to apply to colleges.

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

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

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

User Name: Last Name+First Initial+Graduation Year

Password: studentID#

Ex: Jane Doe, Class of 2013

User Name: DoeJ13

Password: 123456

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

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

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

Course Load

Students are encouraged to take advantage of the programs offered by carrying a course load consistent with their abilities and interests and that allows them to meet all minimum requirements of New York state 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 Policy

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

Semestering

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

NCAA Eligibility

Students interested in competing in athletics at the college level must consult each college regarding its athletic affiliation. Those schools who participate in the NCAA (National Collegiate Athletic Association) are separated into three major categories called Divisions. Eligibility to participate in intercollegiate athletics is determined by a student's Grade Point Average (GPA) as calculated by the NCAA based on quality points earned in NCAA pre-approved R-H courses, and SAT or ACT scores. Student athletes intending to participate in intercollegiate athletics at the Division I or II level should consult www.ncaa.org 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 Policy

The high school budget is prepared, staff is hired, and the master schedule is developed based on student course requests submitted by March 6, 2015. Therefore, after March 6, schedules may only be changed for the following reasons:

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

Credit Options

Regents (R)

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

Honors (H)

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

Advanced Placement (AP)

Rush-Henrietta offers Advanced Placement courses depending upon enrollment.

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

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

College Study

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

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

Independent Study

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

Dual Enrollment

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

Credit By Examination

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

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

Project Lead The Way (PLTW)

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

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 with Advanced Designation: Students will choose one of these three options:			Regents Diploma
	LOTE Sequence Minimum Units of Credit Needed:	Music/Art Sequence Minimum Units of Credit Needed:	Career/Technical Education Sequence Minimum Units of Credit Needed:	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	3	1	1	1
Art/Music	1	5	1	1
Health	.5	.5	.5	.5
Physical Education	2	2	2	2
Career/Technical Ed. (Business, Technology, Family & Consumer Science, EMCC)	0	0	5	0

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

* Beginning with the class of 2019, students will be required to enroll in a math course each year of high school.

NINTH GRADE ACADEMY

COURSE OFFERINGS

<u>Department</u>	<u>Course</u>	<u>Refer to Page</u>
Art	701 Foundations in Art	8
	705/706 Drawing and Painting	10
	702 Digital Imaging and Photography	10
Business	511 Computer Applications	14
	549 Principles of Marketing	14
English*	013 English 9R	17
	014 English 9H	17
Health	881 Health	21
LOTE	442 Spanish I	22
	404 French II	22
	422 German II	22
	444 Spanish II	22
	464 American Sign Language II	23
Mathematics*	201 Algebra I	25
	217 Geometry	25
	249 High School Prep Math	26
Music	802 Concert Band	29
	803 Symphonic Band	29
	804 Academy Chorus	29
	824 Concert Orchestra	29
	825 Symphonic Orchestra	30
	826 Jazz Ensemble	30
	810 Instrumental Chorus	30
Physical Education*	919/920 Physical Education 9	31
Science*	322 Biology*	34
	365 Principles of Biomedical Science (elective)	36
Social Studies*	113 Global History & Geography 9R	39
	114 World History Pre-AP 9H	39
Technology	600 Production Systems	43
	607 Basic Electronics	43
	623 Robotics Systems 1A	43
	611 Introduction to Engineering Design	44

* **Required ninth grade course**

NOTE: The offering of electives is subject to enrollment numbers.

Academic Programs

Art

Business

English Language Arts

Family & Consumer Science

Health

Languages Other Than English

Mathematics

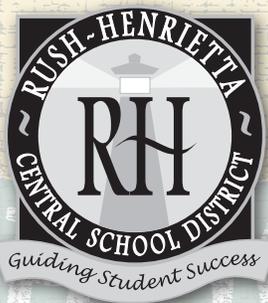
Music

Physical Education

Science

Social Studies

Technology



ART

All students must earn at least one unit of credit in art or music in order to graduate. The art course that satisfies this requirement is Foundations in Art. Students working towards a Regents Diploma with Advanced Designation using the Music/Art option may earn their 5-units of credit from a combination of music and/or visual arts courses.

Students who are considering a career in the visual arts should be taking a sequence of coursework in the visual arts. Starting in grade 8 or 9 students will begin with Level 1 coursework. Level 2 courses (see chart on next page) may be taken in one semester, two semesters, or multiple times as an Independent Study. Students wishing to prepare for a specialized field of study in the Visual Arts will want to complete both semesters of a particular course in order to advance to Level 3. Level 3 and Level 4 courses may be taken simultaneously. Students taking AP Studio in Drawing and Painting should also enroll in Portfolio Preparation.

NYS LEARNING STANDARDS FOR THE ARTS

Learning Standard 1 – Creating, Performing, and Participating in the Arts:

Students will actively engage in the processes that constitute creation and performance in the arts, and participate in various roles in the arts.

Learning Standard 2 – Knowing and Using Arts Materials and Resources:

Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

Learning Standard 3 – Responding to and Analyzing Works of Art:

Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.

Learning Standard 4 – Understanding the Cultural Dimensions and Contributions of the Arts:

Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.



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

- Foundations in Art

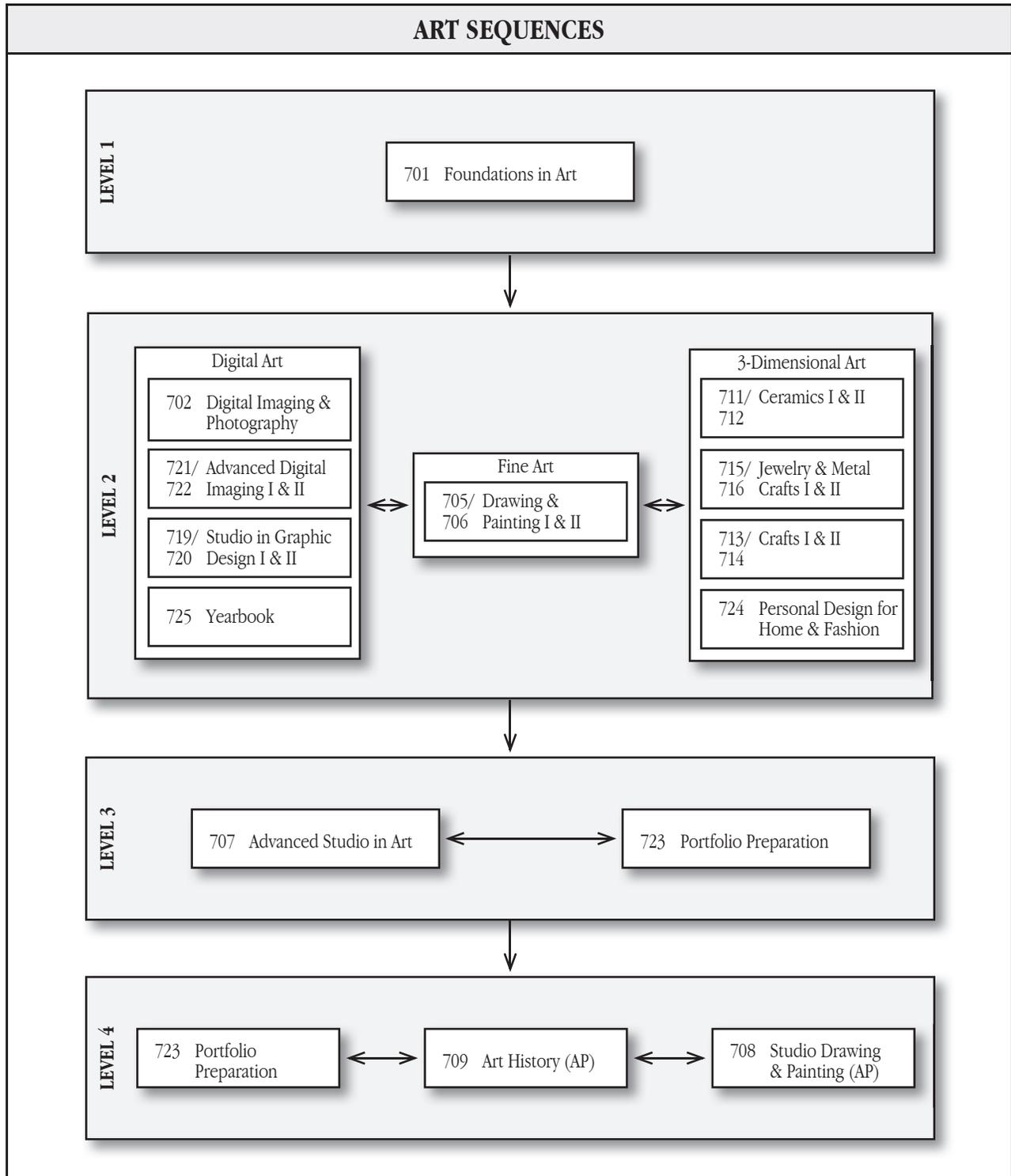
701 FOUNDATIONS IN ART - LEVEL 1

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, digital imaging and will become familiar with art history. Homework may include sketching, researching, and finding source material. A portfolio for storing art is required. A sketchbook is strongly recommended.

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

Open to grades 9-12; full year; 1 credit

ART SEQUENCES



Level 2 Courses

702 DIGITAL IMAGING & PHOTOGRAPHY

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

Prerequisite: Foundations in Art

Open to grades 9-12; full year; 1 credit

705 DRAWING & PAINTING I

706 DRAWING & PAINTING II

This course deals with basic tools and materials in drawing and painting. Students develop skills in pencil, pen and ink, charcoal, pastel, and paints. Some outside work is required. This is a skill-building course in which the student will develop drawing and painting abilities. The teacher's evaluation of the portfolio is a major part of the grade.

Prerequisite: Foundations in Art

Open to grade 9; full year; 1 credit (prerequisite is Studio in Art in 8th grade).

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

724 PERSONAL DESIGN FOR HOME & FASHION

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

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

Prerequisite: Foundations in Art

Open to grades 10-12; full year; 1 credit

713 CRAFTS I

714 CRAFTS II

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

Prerequisite: Foundations in Art

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

711 CERAMICS I

712 CERAMICS II

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

Prerequisite: Foundations in Art

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

715 JEWELRY & METAL CRAFTS I

716 JEWELRY & METAL CRAFTS II

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

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

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

Prerequisite: Foundations in Art

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

719 STUDIO IN GRAPHIC DESIGN I

720 STUDIO IN GRAPHIC DESIGN II

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

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

721 ADVANCED DIGITAL IMAGING I

722 ADVANCED DIGITAL IMAGING II

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

Prerequisite: One credit in Digital Imaging and Photography

Open to grades 10-12; one semester, 1/2 credit; Students may take this course in both semesters for 1 credit.

725 YEARBOOK

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

Prerequisite: Foundations in Art

Open to grades 10-12 with teacher approval; full year; 1 credit

707 ADVANCED STUDIO IN ART - LEVEL 3

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).

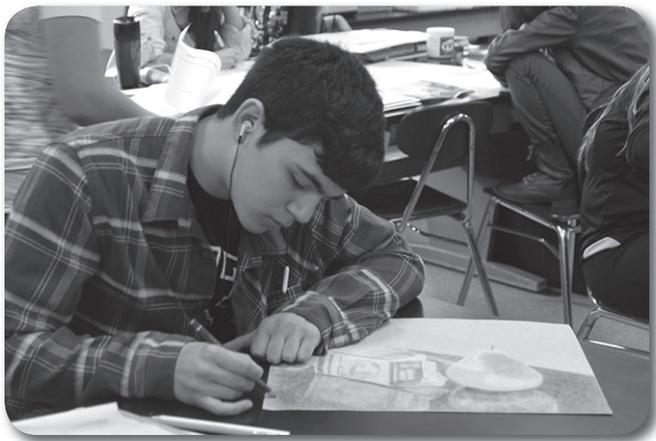
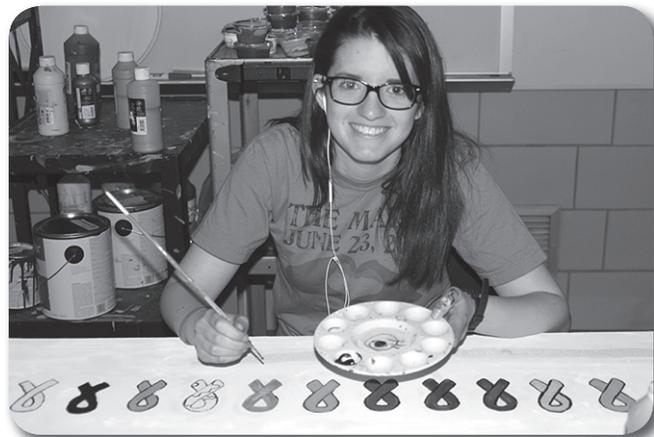
Prerequisite: Foundations in Art and Drawing and Painting
Open to grades 10-12; full year; 1 credit

723 PORTFOLIO PREPARATION - LEVEL 3 & 4

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

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

Open to grades 11-12; one semester, 1/2 credit



708 STUDIO DRAWING/PAINTING (AP) - LEVEL 4

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

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

Open to grade 12; full year; 1 credit

709 ART HISTORY (AP) - LEVEL 4

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

This course will be offered in the 2015-2016 school year.

Open to grades 11-12; full year; 1 credit

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

BUSINESS

Business education encourages students to embrace 21st century opportunities with confidence. Business education emphasizes the skills that will be of vital importance in college and careers: leadership, communication, collaboration, and information and communication technology. These skills serve as the foundation of teaching and learning experiences in our classrooms to prepare students for success in academic and workplace settings.

Students working towards a Regents Diploma with Advanced Designation using the Career & Technical Education option may earn their 5-units of credit from a combination of Business, Family and Consumer Science, and/or Technology Courses.



NYS LEARNING STANDARDS FOR CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES

Standard 1: Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2: Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a: Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Standard 3b: Career Majors

Students who choose a career major will acquire the career-specific technical knowledge and skills necessary to progress toward gainful employment, career advancement, and success in post secondary programs.

By achieving the following criteria, students with an interest in business are eligible for special recognition at Undergraduate and Senior Awards Nights.

Outstanding Achievement Level

Academics:

- Successful completion of 4 business classes (2 credits minimum) within the same concentration.

Mastery Level

Academics:

- Successful completion of 3 credits within the same concentration.

Leadership/Teamwork:

Students must complete one or more of the following:

- Actively participate in DECA for at least one year.
- Successfully complete 300 hours of supervised cooperative work experience.
- Successfully complete the Career Exploration Internship program.
- Acceptance into the New York State Business Honor Society (requires minimum 80% average).

Distinguished Level

Academics:

- Successful completion of 5 credits within the same concentration with an overall average of 85%.

Leadership/Teamwork:

Students must complete each of the following:

- Actively participate in DECA for at least one year.
- Successfully complete 300 hours of supervised cooperative work experience or the Career Exploration Internship program.
- Acceptance into the New York State Business Honor Society (requires minimum 80% average).

BUSINESS CONCENTRATIONS

Sports & Entertainment	Advertising
511 Computer Applications	511 Computer Applications
160 Leadership in Action	160 Leadership in Action
549 Principles of Marketing	549 Principles of Marketing
504 Entertainment Marketing	553 Desktop Publishing
505 Sports Management	507 Advertising & Media Relations
544 Accounting	544 Accounting
595 Business Law	595 Business Law
550 Business Ownership and Management	550 Business Ownership and Management
509 Career Exploration Internship Program	509 Career Exploration Internship Program
699 Cooperative Work Experience (COOP)	699 Cooperative Work Experience (COOP)

160 LEADERSHIP IN ACTION

In this one-semester elective, 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.

Open to grades 10-12; one semester; 1/2 credit

501 CAREER AND COLLEGE PLANNING SEMINAR

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.

Open to grades 10-12; one semester; 1/2 credit

504 ENTERTAINMENT MARKETING

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

Open to grades 10-12; one semester; 1/2 credit

505 SPORTS MANAGEMENT

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

Open to grades 10-12; one semester; 1/2 credit

507 ADVERTISING AND MEDIA RELATIONS

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.

Open to grades 10-12; one semester; 1/2 credit

509 CAREER EXPLORATION INTERNSHIP PROGRAM

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.

Open to grades 10-12

511 COMPUTER APPLICATIONS

This course provides in-depth, hands-on experience with the most 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).

Open to grades 9-12; one semester; 1/2 credit

544 ACCOUNTING

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. On-line 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 3 for details.

Open to grades 10-12; full year; 1 credit

549 PRINCIPLES OF MARKETING

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.

Open to grades 9-12; one semester; 1/2 credit

550 BUSINESS OWNERSHIP AND MANAGEMENT

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 3 for details.

Open to grades 10-12; full year; 1 credit



553 DESKTOP PUBLISHING

This course provides students with computer based experience in creating publications. Students explore design and layout, typography, publication design, digital image manipulation, and desktop publishing career options. Students will use Microsoft Word, Microsoft Publisher, Photoshop Elements, and the Internet to produce a professional looking student selected publication.

Open to grades 10-12; one semester; 1/2 credit

595 BUSINESS LAW

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.

Open to grades 11-12; full year; 1 credit

695 FINANCIAL LITERACY

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

Open to grades 10-12; one semester; 1/2 credit

699 COOPERATIVE WORK EXPERIENCE

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

Requirements:

1. Successful completion of Career Exploration Internship Program.
2. Approval by work-based learning teacher.
3. Working papers for students under 18 years of age.
4. Successful participation in the class component. Seminars include career guidance, obtaining a job, advancing in a career, job practices and human relations, job regulations and legislation.

Open to grades 11-12; full year (300 hours): 1 credit;
one semester (150 hours): 1/2 credit



ENGLISH LANGUAGE ARTS

The NYS Common Core State Standards for English Language Arts & Literacy are the culmination of an extended, broad-based effort to fulfill the charge issued by the states to create the next generation of K–12 standards in order to help ensure that all students are college and career ready in literacy no later than the end of high school.

These Common Core Standards are (1) research and evidence based, (2) aligned with college and work expectations, (3) rigorous, and (4) internationally benchmarked.

Our goal in the Rush-Henrietta Central School District is to expose students at all levels to regular and varied opportunities to read, write, listen, and speak across all grade levels and content areas.

Key components include:

Reading: Text complexity and the growth of comprehension

The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. Students must make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.



Writing: Text types, responding to reading, and research

The Writing standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types of writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and narratives. These standards stress the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts.

Speaking and Listening:

Flexible communication and collaboration

Including but not limited to skills necessary for formal presentations, the Speaking and Listening standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

Language: Conventions, effective use, and vocabulary

The Language standards include the essential “rules” of standard written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. The vocabulary standards focus on understanding words and phrases, their relationships, and acquiring new vocabulary, particularly general academic and domain specific words and phrases.



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

013 ENGLISH 9 (R) ❖

The theme that serves as the focus for this course is “How can we face challenges with a positive mindset?” Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, and literary devices. Units of study include “Coming of Age,” “Struggling Through Adversity,” and “Character Development,” with several core texts embedded, including *The Glass Castle*, *Romeo and Juliet*, and *The Odyssey*. Opportunity exists for writing in the form of essays of comparison, analysis, responses to literature, and synthesis. Students are responsible for home learning and outside reading assignments.

Full year; 1 credit

014 ENGLISH 9 (H) ❖

The honors-level course is for students who have a strong interest in a scholarly approach to English and who enjoy a challenging study of reading and writing. In this course, students will engage in some areas of study similar to English 9 Regents (013), but in greater depth and complexity. Students are expected to demonstrate a strong work ethic in their pursuit of learning. The theme that serves as the focus for this course is “How can we face challenges with a positive mindset?” Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, and literary devices. Units of study include “Overcoming Evil,” “Struggling Through Adversity,” and “Character Development,” with several core texts embedded, including “Young Goodman Brown,” *The Glass Castle*, *Romeo and Juliet*, and *The Odyssey*. Critical thinking, inference, and literary analysis are the foundations of this course.

Full year; 1 credit

023 ENGLISH 10 (R) ❖

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

Full year; 1 credit

024 ENGLISH 10 (H) ❖

The honors-level course is for students who have a strong interest in a scholarly approach to English and who enjoy a challenging study of reading and writing. In this course, the students will engage in some areas of study similar to English 10 Regents (023), but in greater depth and complexity with a strong pursuit of learning and independence. The theme that serves as the focus for this course is “Human Responsibility.” Students read novels, plays, poetry, nonfiction, and short stories with attention to comprehension, text-based responses, vocabulary, critical thinking, literary devices, and deep analysis. Units of study include “Foundational Skills Of English,” “Integrity and Professional Responsibility,” and “Human Rights,” with several core texts embedded, including *The Palace Thief*, *Macbeth*, and *Behind The Beautiful Forevers*. A focus on writing a well-organized literary analysis composition and an informational research piece will be included.

Full year; 1 credit

032 ENGLISH 11 (R) ❖

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

Full year; 1 credit



043 ENGLISH 12 (R)

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.

Choose one reading component:

- ❖ *Contemporary Literature [01]*: 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*.
- ❖ *Rediscovering the Classics [03]*: 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*.

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 writing and research component:

- ❖ *Style and Expression [02]*: 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.
- ❖ *Rhetorical Analysis [04]*: 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) ❖

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 the student practice and helpful criticism necessary to make him/her a flexible writer, able to compose in a variety of modes and for a variety of purposes. Writing assignments contribute to the aim of making the student a mature writer, 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.

Open to grades 11-12; full year; 1 credit

046 LITERATURE AND COMPOSITION (AP) ❖

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.

Open to grades 11-12; full year; 1 credit

060 JOURNALISM

There are two components to the journalism course. The first involves the study of the theories involved in all aspects of media. This portion of the course will examine such topics as media ethics, media literacy, print media, broadcast media, and online media. Guest speakers from the various types of media will facilitate or lead discussions in their field of expertise. The second component of the course is the production of the student newspaper, the R-H Factor. While writing for an authentic audience, students will apply the knowledge they have obtained in the theory portion of the course. This elective course may be taken for a second time with teacher permission.

Open to grades 10-12; full year; 1 credit

062 PUBLIC SPEAKING ❖

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.

Open to grades 10-12; one semester; 1/2 credit

067 CREATIVE WRITING ❖

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.

Open to grades 10-12; one semester; 1/2 credit

070 THEATRE

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.

Open to grades 10-12; one semester; 1/2 credit

071 CLASSICAL CIVILIZATIONS: MYTHS AND LEGENDS ❖

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.

Open to grades 10-12; one semester; 1/2 credit

073 CINEMATIC LITERACY

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.

Open to grades 10-12; one semester; 1/2 credit



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 the skills and attitudes that enable them to act responsibly toward themselves, their families, their peers, and society as a whole. Family and Consumer Science curriculum is relevant and practical, promoting healthy lifestyles in the context of family values and priorities.

Students working towards a Regents Diploma with Advanced Designation using the Career & Technical Education option may earn their 5-units of credit from a combination of Business, Family and Consumer Science, and/or Technology Courses.



NYS LEARNING STANDARDS FOR CAREER DEVELOPMENT AND OCCUPATIONAL STUDIES

Standard 1: Career Development

Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

Standard 2: Integrated Learning

Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

Standard 3a: Universal Foundation Skills

Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

Standard 3b: Career Majors

Students who choose a career major will acquire the career-specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in post secondary programs.

668 CHILD AND ADULT DEVELOPMENT

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.

Open to grades 10-12; full year; 1 credit

660 INTRODUCTION TO FOODS AND NUTRITION

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 the longevity, as well as the quality of their lives. Food preparation techniques, aspects of the food industry, and career possibilities will also be emphasized.

Open to grades 10-12; full year; 1 credit

673 FOOD SCIENCE

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.

Open to grades 11-12; full year; 1 credit

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 six high-risk behaviors:

- Use of tobacco, alcohol, and other drugs
- Dietary patterns
- Sedentary lifestyles
- Behaviors that result in sexually transmitted diseases and unintended pregnancy
- Behaviors that result in unintentional injuries
- Violence and other anti-social behaviors

Our skills approach to health education provides sequential K-12 instructional units designed to develop essential knowledge in these skill areas:

- Advocacy
- Communication
- Relationship management
- Decision-making
- Planning and goal setting
- Self-management
- Stress management

NYS LEARNING STANDARDS

Standard 1: Personal Health and Fitness

Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

Standard 2: A Safe and Healthy Environment

Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.

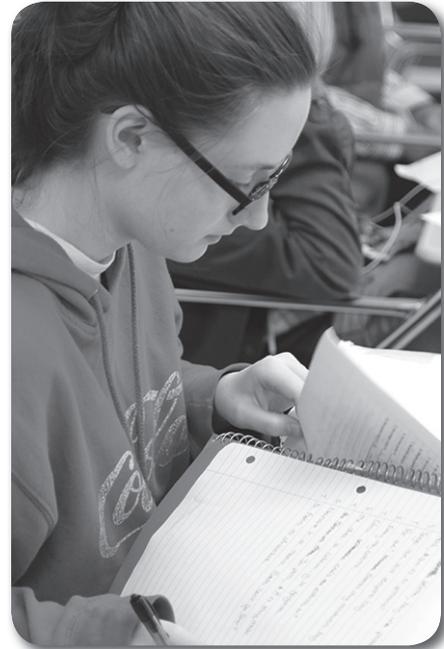
Standard 3: Resource Management

Students will understand and be able to manage their personal and community resources.

881 HEALTH

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.

Open to grades 9-12; one semester; 1/2 credit



883 DEATH AND DYING

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

Open to grades 10-12; one semester; 1/2 credit

884 WOMEN'S HEALTH & WELLNESS

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

Open to grades 10-12; one semester; 1/2 credit

LANGUAGES OTHER THAN ENGLISH

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 customs. Students will also improve their oral and written communication skills which will help build the foundation they need for college or career training beyond high school.

Students planning to attend a four-year college should review college publications for admission policies regarding Languages Other Than English (LOTE). Students should also research the foreign language requirements for graduation from the specific college degree programs they wish to pursue.

NYS LEARNING STANDARDS

Standard 1: Communication Skills

Students will be able to use a language other than English for communication.

Standard 2: Cultural Understanding

Students will develop cross-cultural skills and understandings.

New York State requires students to complete at least two years of language study by the end of ninth grade and earn one credit. In Rush-Henrietta, this can be accomplished in two ways:

- If the language study is completed at the end of eighth grade, students must have completed two years of a language (7th and 8th grade) and earn a minimum score of 65% on the Proficiency Exam (Checkpoint A).
- If the language study is completed at the end of ninth grade, students must earn a passing grade of 65% or better in the ninth grade Level I HS course (aligned to Checkpoint A).

These two years of study may be in two different languages.

Students working towards a Diploma with Advanced Designation are required to pass three credits of LOTE studies and earn a minimum score of 65% on the Comprehensive LOTE Level III Final Examination (Checkpoint B). *

* There are two exceptions to this requirement:

1. A student with a handicapping condition exempted from LOTE by the Committee on Special Education.
2. A student enrolled in a five-unit sequence in the Arts (Music or Art) or Career and Technical Education (Business, Technology, Family and Consumer Science, or a vocational program at EMCC).

Rush-Henrietta currently offers full-year courses worth one credit each in the following languages: French, German, Spanish, and American Sign Language.

See page 4 for further information regarding LOTE.

LEVEL I

442 SPANISH ❖

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

Open to grades 9-12; Full year; 1 credit

LEVEL II

404 FRENCH ❖

422 GERMAN ❖

444 SPANISH ❖

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

Open to grades 9-12; Full year; 1 credit

LEVEL III

406 FRENCH ❖

424 GERMAN ❖

446 SPANISH ❖

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

Open to grades 10-12; Full year; 1 credit

LEVEL IV

408 FRENCH (H) ❖

426 GERMAN (H) ❖

448 SPANISH (H) ❖

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 3 for details.

Prerequisite: One credit in Level III

Open to grades 10-12; Full year; 1 credit

LEVEL V

410 FRENCH (H) ❖

428 GERMAN (H) ❖

450 SPANISH (H) ❖

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

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 3 for details.

Prerequisite: One credit in Level IV

Open to grades 10-12; Full year; 1 credit

464 AMERICAN SIGN LANGUAGE II ❖

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

Open to grades 9-12; Full year; 1 credit

466 AMERICAN SIGN LANGUAGE III ❖

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

Open to grades 10-12; Full year; 1 credit

470 FOREIGN STUDY SEMINAR

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.

Prerequisites: Recommendation by appropriate language teacher and administrator

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

Open to grades 9-12; 1/2 credit



MATHEMATICS

A fundamental knowledge of mathematics is essential to function effectively in our complex society. As modern technology has dramatically increased the need for a mathematically literate work force, an effective mathematics program has to support students learning basic skills and must also develop students' abilities to communicate, explore, make conjectures, and reason logically. Problem-solving and learning-to-learn skills are essential for college and career readiness.

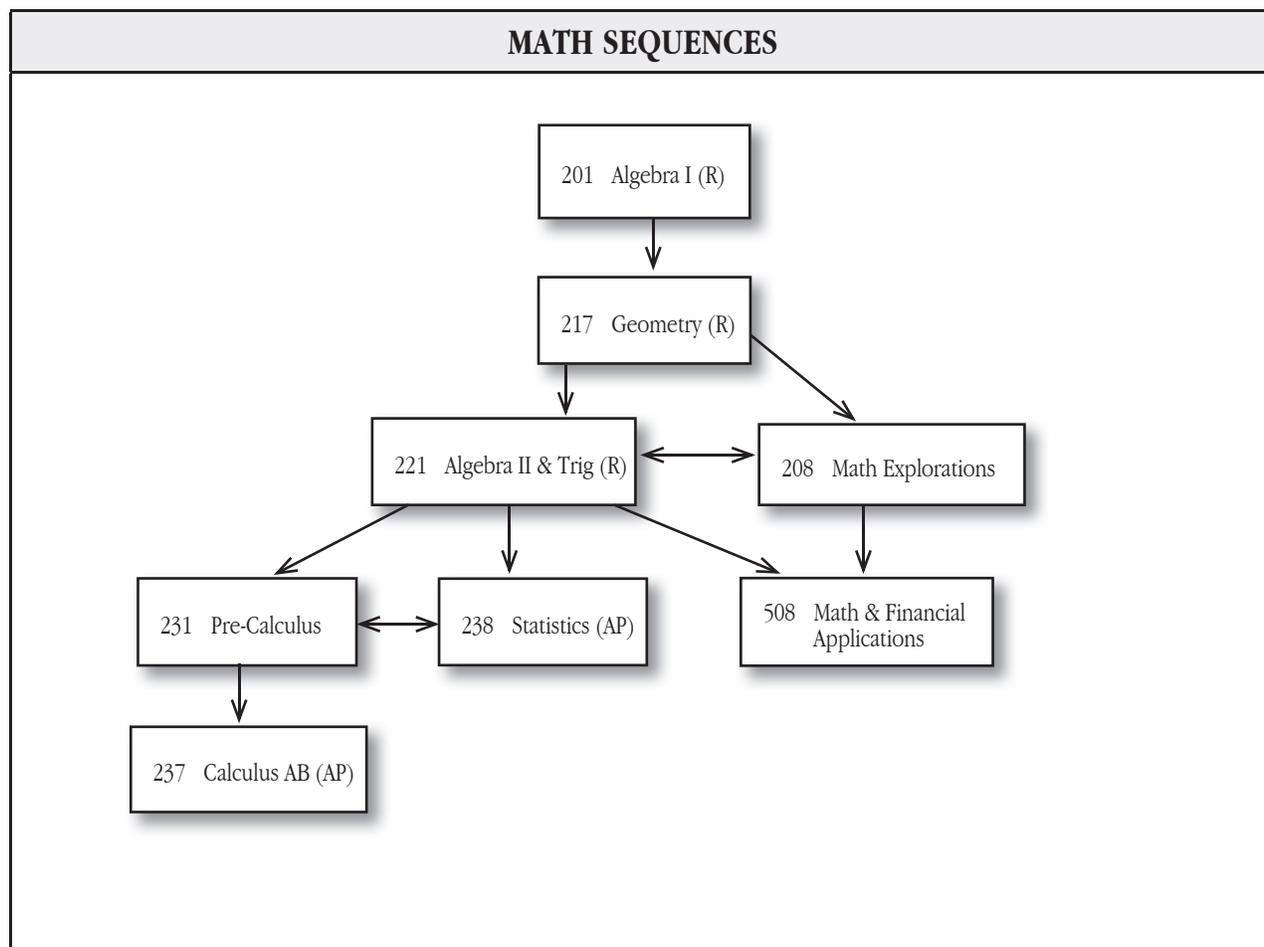
Learning mathematics is a continuous process, one that builds on earlier learning and develops mathematical practices. Our mathematics curriculum is designed to provide students with the appropriate understanding, knowledge, and skill to prepare them for the next math courses they will take, as well as to keep the doors open to areas of further study and career opportunities.

It is important that students see the value of mathematics, acquire positive attitudes about mathematics, and develop confidence in their ability to understand and do mathematics. What students achieve often depends as much on their dispositions toward mathematics as it does on calculating with accuracy and efficiency, and on their understanding of underlying concepts. Mathematics is not a series of isolated procedures and skills, but a tool that can be applied to understand and use in practical and meaningful experiences.

NYS Common Core Learning Standards in Mathematics (CCLSM)

New York State has adopted the national Common Core State Standards for Mathematics. NYS Common Core Learning Standards for Mathematics clearly state the way mathematics should be taught, learned, and assessed. *Standards for Mathematical Practice* have been established and describe the expertise that students will develop through their study of mathematics: evaluating assertions and proving or disproving them, reasoning within contextual constraints, strategic competence, conceptual understanding, procedural fluency, and problem-solving skill.

The instruction in Rush-Henrietta math courses incorporates and emphasizes those standards.



201 ALGEBRA I (R) ❖

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

Open to grades 8-12; full year; 1 credit

217 GEOMETRY (R) ❖

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

Prerequisite: One credit in Algebra I

Open to grades 9-11; full year; 1 credit

221 ALGEBRA II AND TRIGONOMETRY (R) ❖

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

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

Open to grades 10-12; full year; 1 credit

208 MATH EXPLORATIONS ❖

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

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

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

Open to grades 11-12; full year; 1 credit

508 MATH AND FINANCIAL APPLICATIONS

High school seniors will find the content of this course both timely and relevant. During the course, students will learn about the mathematics involved in both personal and business finance. Topics related to personal and business finances include interest, creating formulas, budgeting/depreciation, loans/banking, annuities, credit, investments, and financial statements.

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

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

Open to grade 12; full year; 1 credit

231 PRE-CALCULUS ❖

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

This curriculum prepares students for the Advanced Placement Calculus course.

Prerequisite: One credit in Algebra II and Trigonometry

Open to grades 11-12; full year; 1 credit

237 CALCULUS AB (AP) ❖

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

Dual enrollment with Monroe Community College may be offered for this course if all requirements are met. Please see page 3 for details.

Prerequisite: One credit in Pre-Calculus

Open to grade 12; full year; 1 credit

238 STATISTICS (AP) ❖

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 and Trigonometry

Open to grades 11-12; full year; 1 credit

249 HIGH SCHOOL PREP MATH

This course is designed for a select group of students who need help in the core math concepts that have been identified as required competencies for successful completion of a first year algebra course. Students who enroll in this class must meet selection criteria that includes identifiable gaps in their achievement history and reasonable effort and attendance during those grades. This need for additional instruction and practice will be met by a curriculum that includes differentiated instruction, online learning, and the development of a growth mindset about learning math. In addition to improving knowledge and understanding of core math concepts, students will learn the math they need to build on in order to complete the math courses needed for a Regents Diploma with Advanced Designation.

Prerequisite: Completion of 8th grade math

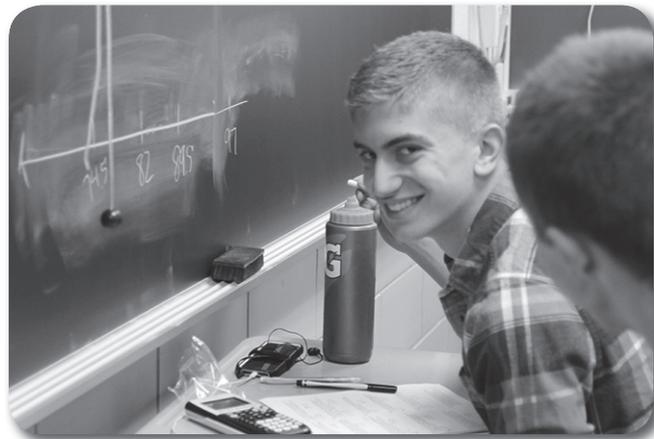
Open to grade 9; full year; 1 credit

228 COLLEGE PREP MATH

This course is designed for a select group of students who need help in the core math concepts that have been identified as required for enrollment and successful completion of credit-bearing college math courses or career program math requirements. Students who take this course must take the math Accuplacer[®] diagnostic exam and demonstrate the need for additional instruction and practice. 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, field trips, and presentations about the math people need and use in their work.

Prerequisite: One credit in Algebra I

Open to grade 12; full year; 1 credit



MUSIC

All students must earn at least one unit of credit in art or music in order to graduate. Music courses that satisfy this requirement are listed in the box below. Students working towards a Regents Diploma with Advanced Designation using the Music/Art option may earn their 5-units of credit from a combination of music and/or visual arts courses.

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

- Concert Band
- Concert Orchestra
- Academy Chorus
- Concert Chorus
- R-H Singers
- Music Theory I
- Piano In Our Lives
- Symphonic Band
- Symphonic Orchestra
- World Music in Our Lives



A comprehensive, quality education includes the study of music and all that it offers. Music education allows students, regardless of their background, talents, or abilities, to value themselves and the world in unique ways. Music encourages the understanding of different civilizations and cultures and allows for the creation and performance of artistic works.

Music education provides students with a variety of life skills, such as self-discipline, long-term goal setting, and perseverance. It teaches students to critically evaluate the works of themselves and others. It helps students develop higher order cognitive skills, including creative problem-solving and divergent thinking, that transfer readily to other curricular areas. It enhances all students' development.

Music is deeply embedded in our culture. It is an expression of our deepest feelings and highest aspirations. The study of music carries us toward the fullness of our humanity. It is a form of communication that touches us all.

NYS LEARNING STANDARDS FOR THE ARTS

Learning Standard 1 – Creating, Performing, and Participating in the Arts:

Students will actively engage in the processes that constitute creation and performance in the arts, and participate in various roles in the arts.

Learning Standard 2 – Knowing and Using Arts Materials and Resources:

Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

Learning Standard 3 – Responding to and Analyzing Works of Art:

Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.

Learning Standard 4 – Understanding the Cultural Dimensions and Contributions of the Arts:

Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.

MUSIC SEQUENCES																	
SKILL DEVELOPMENT	MUSIC KNOWLEDGE																
<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"><i>Instrumental</i></td> <td style="width: 50%; vertical-align: top;"><i>Vocal</i></td> </tr> <tr> <td>802 Concert Band</td> <td>804 Academy Chorus</td> </tr> <tr> <td>803 Symphonic Band</td> <td>806 Concert Chorus</td> </tr> <tr> <td>824 Concert Orchestra</td> <td>807 R-H Singers</td> </tr> <tr> <td>825 Symphonic Orchestra</td> <td>810 Instrumental Chorus</td> </tr> <tr> <td>826 Jazz Ensemble</td> <td>828 Spectrum Singers</td> </tr> <tr> <td>827 Chamber Orchestra</td> <td></td> </tr> <tr> <td>830 Private Music Study</td> <td></td> </tr> </table>	<i>Instrumental</i>	<i>Vocal</i>	802 Concert Band	804 Academy Chorus	803 Symphonic Band	806 Concert Chorus	824 Concert Orchestra	807 R-H Singers	825 Symphonic Orchestra	810 Instrumental Chorus	826 Jazz Ensemble	828 Spectrum Singers	827 Chamber Orchestra		830 Private Music Study		819 Music Theory I 821 Music Theory II 823 Music Theory III 710 World Music in Our Lives 808 Piano In Our Lives
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827 Chamber Orchestra																	
830 Private Music Study																	
Music - 5 Unit Sequence	Fine Arts - 5 Unit Sequence																
-- 3 units of skill development, including 2 units in major performing groups -- 2 units of music knowledge	-- 1 unit of Studio in Art -- 1 or 2 units of Level II Art -- 1 or 2 units of music knowledge -- 1 or 2 units of performing arts, humanities, music, or visual arts																

Note: Students may apply for independent study if they receive permission of the instructor and meet course prerequisites. See page 3.

710 WORLD MUSIC IN OUR LIVES

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.

Open to grades 10-12; full year; 1 credit

808 PIANO IN OUR LIVES

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.

Open to grades 10-12; full year; 1 credit

819 MUSIC THEORY I

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.

Open to grades 10-12; full year; 1 credit

821 MUSIC THEORY II

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

Prerequisite: One credit in Music Theory I

Open to grades 10-12; full year; 1 credit

823 MUSIC THEORY III

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

Prerequisite: One credit each in Music Theory I and II

Open to grades 10-12; full year; 1 credit

802 CONCERT BAND

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. Emphasis will be on developing rehearsal skills, music reading, and performance skills. All students are expected to leave regularly scheduled portions of the school day to attend weekly group lessons and to practice independently. Student progress will be evaluated quarterly. Students are required to attend all performances, which include several events held outside of the regular school day. This will include concerts and festivals.

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

Prerequisite: Previous band experience

Open to grades 9-12; full year; 1 credit

803 SYMPHONIC BAND

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

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

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

Open to grades 9-12; full year; 1 credit

804 ACADEMY CHORUS

Academy Chorus members will rehearse in a structured setting that emphasizes independent vocal development, sight-singing, and ensemble performance. Particular emphasis is placed on team building, rehearsal discipline, and performance etiquette. Although prior experience is not necessary, it would be most beneficial due to the four part voicing of the choral music. Yearly festival adjudication and solo singing opportunities are available to interested students. This is a performance-based course, therefore, all concerts are mandatory.

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

Open to grade 9; full year; 1 credit

806 CONCERT CHORUS

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

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

Open to Grades 10-12; full year; 1 credit

807 R-H SINGERS

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

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

Open to grades 10-12; full year; 1 credit

824 CONCERT ORCHESTRA

The student will learn and perform a variety of music from current and traditional orchestral 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 for students to master their instruments. Technical aspects of playing (vibrato, advanced bowing, and accurate shifting), as well as general knowledge of music (basic theory and history) as it pertains to the selections being performed, will be included. The orchestra director will evaluate student progress at least four times a year. Public performances outside of the school day will be required. Enrollment is open to all string players.

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

Open to grades 9-12; full year; 1 credit

825 SYMPHONIC ORCHESTRA

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

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

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

Open to grades 9-12; full year; 1 credit

826 JAZZ ENSEMBLE

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)

Open to grades 9-12; Concert Band/Symphonic Band members (as well as Bass and Guitar students); full year; 2 days per week; 1/2 credit

828 SPECTRUM SINGERS

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)

Open to R-H Singers only; full year; 2 days per week; 1/2 credit; or one semester; 2 days per week; 1/4 credit

827 CHAMBER ORCHESTRA

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)

Open to Symphonic Orchestra members only; full year; 2 days per week; 1/2 credit

830 PRIVATE MUSIC STUDY

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 which 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.

Open to grades 9-12; full year; 1/2 credit

810 INSTRUMENTAL CHORUS

This course is offered to students in the Ninth Grade Academy who are also enrolled in band or orchestra. Students will develop vocal and choral technique and performance etiquette. The students will perform with the Freshman Chorus at all concerts and mandatory performances. Students must be strong music readers and have the desire to continue to grow vocally.

Prerequisite: Concurrent enrollment in Band or Orchestra

Open to students in grade 9; full year; 1/2 credit



PHYSICAL EDUCATION

Rush-Henrietta physical education is a sequential educational 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, skills, and values that will develop and strengthen their sense of well being and enhance the quality of their lives.

Physical education helps students develop personal attributes, health and fitness knowledge and skills, feelings of self-worth, and a personal value system, all of which act as necessary catalysts in the development of individual lifestyles. Such development is essential for each student to become an informed, healthy, productive, and responsible citizen.

All high school students are required to **attend, participate, and pass** physical education in each of the eight semesters in grades 9-12. 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 prepares students for a physically active and physically fit lifestyle. In grade 9, the emphasis is on individual skill development/refinement, healthy risk taking, socialization, cooperation, responsibility, and respect for others.

Students in grades 10-12 will be able to choose a Physical Education elective based on their interests. **Please note that all students will participate in Physical Fitness Testing throughout the year. Students in grades 10-12 may also be required to participate in swimming.**

Special adaptive programs are available for students with medical problems or medical excuses. Please consult with your physical education teacher and the school nurse teacher about these programs.

Two alternative physical education plans are available to students in grades 10-12: alternative and athletic contracts. An alternative contract allows any student who has consistently passed physical education and is involved in regular structured physical activity outside of school to earn credit for that activity. Log sheets and activity packets are required. **Alternative contracts are only approved during the first two weeks of each semester (September and February).**

An athletic contract is available to a student who participates on a Rush-Henrietta athletic team and is permitted only for the duration of that current athletic season. *Students on an athletic contract are also required to complete an activity packet.* Athletic contracts are only approved during the first two weeks of each sport. Please consult with your physical education teacher about these programs.

NYS LEARNING STANDARDS

Standard 1: Personal Health and Fitness

Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

Standard 2: A Safe and Healthy Environment

Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.

Standard 3: Resource Management

Students will understand and be able to manage their personal and community resources.

PHYSICAL EDUCATION 9-12

919 1st Semester

920 2nd Semester

Activity may include:

- *Weights:* 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.
- *Team Sports:* Designed for students who want to participate in a variety of team sports and to continue to develop the skills and strategies associated with football, soccer, volleyball, basketball, and water activities (10-12).
- *Life Long Activities:* Designed to give students the opportunity to learn skills and strategies associated with activities in which they can participate throughout their lives. Activities may include, but are not limited to: hiking, bowling, tennis, and water fitness (10-12).
- *Recreational Games:* Provides students the opportunity to develop skills and strategies associated with participation in archery, badminton, matball, bocce, and water sports (10-12).
- *International Games:* Designed to expose students to activities that are popular in different parts of the world. Activities will include Ultimate Frisbee, team handball, cricket, and water polo (10-12).
- *Club R-H:* For those students who would like to experience a variety of different workouts popular in health clubs today. Activities may include: yoga, pilates, kickboxing, aqua jogging (10-12), iron yoga, boot camp, power core, or a speedball workout.

SCIENCE

In support of the NYS Math, Science, and Technology Standards, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

NYS LEARNING STANDARDS - Math, Science and Technology

Standard 4: Science

The Physical Setting:

Key Idea 1: The Earth and celestial phenomena can be described by principles of relative motion and perspective.

Key Idea 2: Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.

Key Idea 3: Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity.

Key Idea 4: Energy exists in many forms, and when these forms change, energy is conserved.

Key Idea 5: Energy and matter interact through forces that result in changes in motion.



The Living Environment:

Key Idea 1: Living things are both similar to and different from each other and nonliving things.

Key Idea 2: Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring.

Key Idea 3: Individual organisms and species change over time.

Key Idea 4: The continuity of life is sustained through reproduction and development.

Key Idea 5: Organisms maintain a dynamic equilibrium that sustains life.

Key Idea 6: Plants and animals depend on each other and their physical environment.

Key Idea 7: Human decisions and activities have had a profound impact on the physical and living environment.

SCIENCE SEQUENCES		
FOUNDATIONAL SCIENCES	REGENTS & AP SCIENCES	STEM (Science, Technology, Engineering, and Math)
364 Environmental Science	302 Earth Science (R)	367 Forensic Science II
366 Forensic Science I	322 Biology (R)	370 Imaging Science
329 Physical Science-Chemistry	332 Chemistry (R)	365 Principles of Biomedical Science (PLTW)
339 Physical Science-Physics	342 Physics (R)	369 Human Body Systems (PLTW)
362 Science & Society		
673 Food Science *	325 Biology (AP)	Engineering Studies (PLTW) See P. 44 for Technology credit ONLY
	335 Chemistry (AP)	611 Introduction to Engineering Design (PLTW)
	343 Physics 1 (AP)	↓
	355 Environmental Science (AP)	610 Principles of Engineering (PLTW) 609 Digital Electronics (PLTW)
		642 Computer Integrated Manufacturing (PLTW)
		↓
		618 Engineering Design and Development (PLTW)

* for Science credit or Family & Consumer Science credit



302 EARTH SCIENCE (R) ❖

The major understandings and skills of the Physical Setting: Earth Science course are divided into 3 sections - Geology, Meteorology, and Astronomy. Geology includes the study of the history and structure of planet Earth, its internal forces and consequences of tectonic movements, as well as rocks and minerals. This will also include the study of a local park. Meteorology is the study of weather and climate, the external forces affecting them, and forms of violent storms. In Astronomy, students study the universe, stars, our solar system, and earth formation. Problem solving and teamwork are emphasized in this course. Per NYSED regulations, students are required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Physical Setting: Earth Science Regents exam given in June of the course year.

Open to grades 8, 10-12; full year; 1 credit

322 BIOLOGY (R) ❖

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 NYSED regulations, students will be required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Living Environment Regents exam given in June of the course year.

Open to grades 9-12; full year; 1 credit

364 ENVIRONMENTAL SCIENCE ❖

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

Prerequisite: Two credits of science and one credit in Algebra I
Open to grades 10-12; one semester; 1/2 credit

366 FORENSIC SCIENCE I

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

Prerequisite: Two credits of science and one credit in Algebra I
Open to grades 10-12; one semester; 1/2 credit

329 PHYSICAL SCIENCE-CHEMISTRY ❖

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

Prerequisite: Two credits in science and one credit in Algebra I
Open to grades 10-12; one semester; 1/2 credit

339 PHYSICAL SCIENCE-PHYSICS ❖

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

Prerequisite: Two credits in science and one credit in Algebra I
Open to grades 10-12; one semester; 1/2 credit

362 SCIENCE & SOCIETY

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

Prerequisite: Two credits of science and one credit in Algebra I
Open to grades 10-12; one semester; 1/2 credit

673 FOOD SCIENCE

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.

Open to grades 11-12; full year; 1 credit

332 CHEMISTRY (R) ❖

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 NYSED regulations, students are required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Physical Setting: Chemistry Regents exam given in June of the course year.

Prerequisite: Two Regents credits in science; one credit in Algebra I and concurrent enrollment in Geometry
Open to grades 10-12; full year; 1 credit

342 PHYSICS (R) ❖

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 NYSED regulations, students will be required to successfully complete 1200 minutes of lab experience with acceptable lab reports in order to take the Physical Setting: Physics Regents exam given in June of the course year.

Prerequisite: Two Regents credits in science; one credit each in Algebra I and Geometry
Open to grades 10-12; full year; 1 credit

325 BIOLOGY (AP) ❖

This course is equivalent to an introductory college-level class in Biology. The following topics are studied: Chemistry of Life, Cells, Cellular Energetics, Heredity, Molecular Genetics, Evolutionary Biology, Homeostasis, Cell Communication, and Ecology. The class includes lectures, required laboratory exercises, and considerable homework. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Three credits in science with successful completion of Regents Chemistry. One credit each in Algebra I and Geometry.
Open to grades 11-12; full year; 1 credit

335 CHEMISTRY (AP) ❖

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

Prerequisite: Three credits in science with successful completion of Regents Chemistry. One credit each in Algebra I and Geometry
Open to grades 11-12; full year; 1 credit

355 ENVIRONMENTAL SCIENCE (AP) ❖

This course is equivalent to an introductory college-level class in Environmental Science. The following topics are studied: Earth Systems and Resources, The Living World, Population, Land and Water Use, Energy Resources and Consumption, Pollution, and Global Change. The class includes lectures, required laboratory exercises, and considerable homework, in addition to many outdoor field experiences. The Advanced Placement exam as administered by the College Entrance Examination Board must be taken in May.

Prerequisite: Two credits in science and successful completion of the Regents exam in Geometry; completion of, or concurrent enrollment in Regents Chemistry
Open to grades 10-12; full year; 1 credit

343 PHYSICS 1 (AP) ❖

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

Additional study in Advanced Placement Physics is available as an option for interested students. Topics include fluid mechanics, thermodynamics, electricity and magnetism, optics and atomic and nuclear physics. This additional study would prepare interested students for the Physics 2 Advanced Placement exam in May. Interested students should speak to their science teacher for more information.

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

Open to grades 11-12; full year; 1 credit

367 FORENSIC SCIENCE II

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

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

Open to grades 10-12; one semester; 1/2 credit

370 IMAGING SCIENCE

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.

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

Open to Grades 10-12; full year; 1/2 science credit, 1/2 technology credit



365 PRINCIPLES OF BIOMEDICAL SCIENCES

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

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

Prerequisite: One credit each in science and Algebra.

Open to grades 9-12; full year; 1 credit

369 HUMAN BODY SYSTEMS

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.

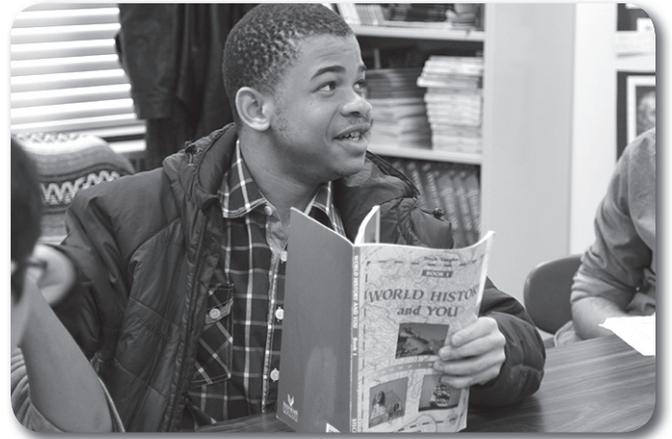
Prerequisite: Principles of Biomedical Sciences

Open to grades 10-12; full year; 1 credit

SOCIAL STUDIES

Social Studies classes are designed to help students learn about themselves, who they are and where they fit into the human story. Students should 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 reflective thinking which will prepare them for effective, thoughtful, and informed citizenship. In order to achieve these goals, social studies courses engage students in the study of the social, geographic, political, historical, and economic aspects of the human story.

All students follow a Regents program that culminates in two New York State Regents exams. The first is taken at the conclusion of the two-year Global History and Geography 9 and 10 programs. The second examination is taken after completion of the U.S. History and Government course.



NYS LEARNING STANDARDS

Standard 1: History of the United States and New York

Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Standard 2: World History

Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Standard 3: Geography

Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live— local, national, and global— including the distribution of people, places, and environments over the Earth's surface.

Standard 4: Economics

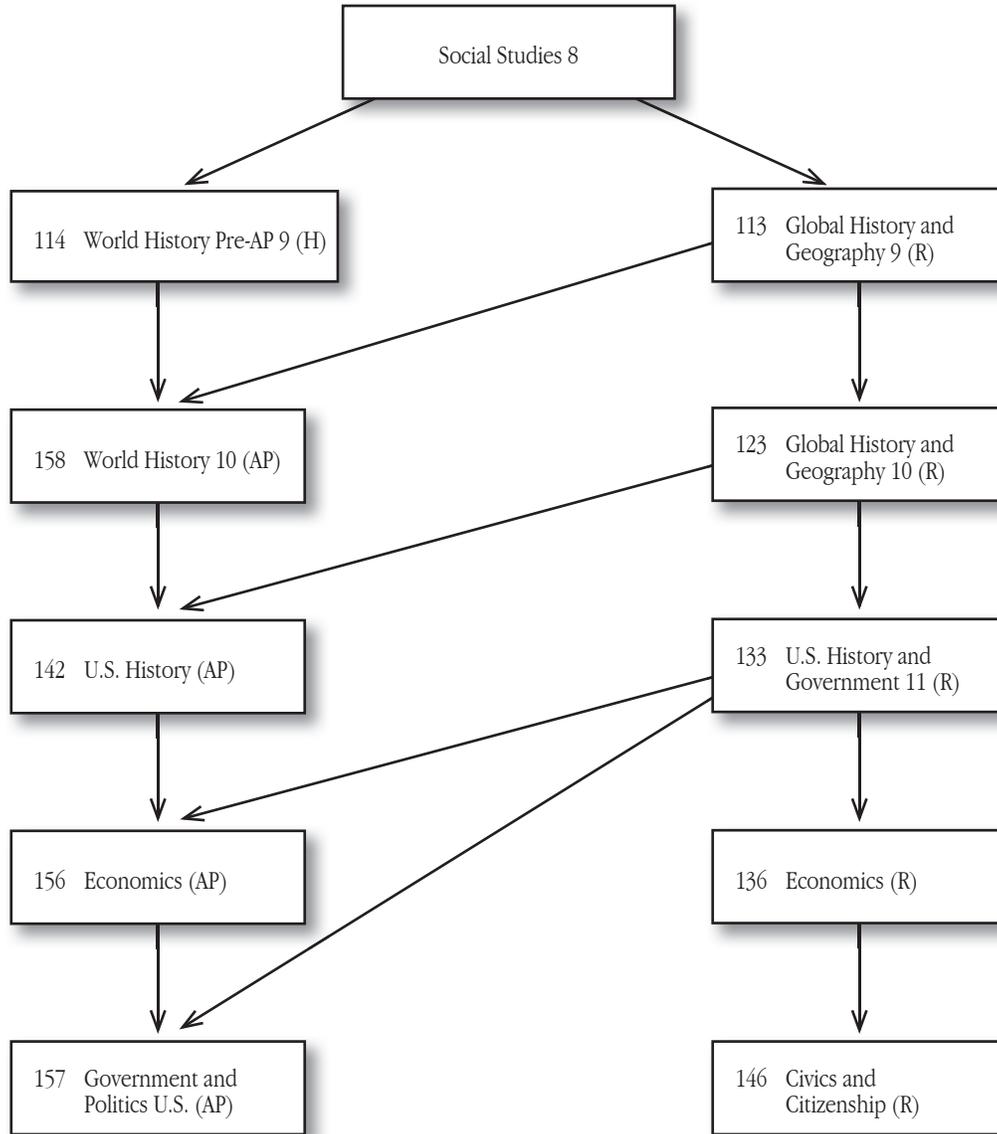
Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources; how major decision-making units function in the United States and other national economies; and how an economy solves the scarcity problem through market and non-market mechanisms.

Standard 5: Civics, Citizenship, and Government

Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.



SOCIAL STUDIES SEQUENCES



Electives offered for grades 11-12



113 GLOBAL HISTORY AND GEOGRAPHY 9 (R) ❖

In this course, students participate in a chronological history of the world beginning with an introductory unit on social science methods, and then trace history from the ancient world to the 18th century's Age of Revolution. Through the year, students examine major themes and concepts including belief systems, change, imperialism, nationalism, political systems, justice, and human rights. Geography and economics receive major emphasis. A final examination for this course is required.

Full year; 1 credit

114 WORLD HISTORY PRE-AP 9 (H) ❖

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

Full year; 1 credit

123 GLOBAL HISTORY AND GEOGRAPHY 10 (R) ❖

This course continues the 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. Geography and economics receive major emphasis.

At the end of this year, all students take the Regents Examination in Global History and Geography, an examination that covers content from both grades 9 and 10. Students must pass this examination and the course to meet graduation requirements. A mid-year examination is required.

Full year; 1 credit

158 WORLD HISTORY 10 (AP) ❖

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

preparation. A summer assignment is required.

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

Recommended: World History Pre-AP

Full year; 1 credit

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

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

Full year; 1 credit

142 U.S. HISTORY (AP) ❖

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

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

Open to grades 11-12; full year; 1 credit

136 ECONOMICS (R) ❖

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 3 for details.

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

One semester; 1/2 credit

156 ECONOMICS (AP) ❖

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

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

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

Open to grade 12; full year; 1 credit

146 CIVICS AND CITIZENSHIP (R) ❖

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

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

One semester; 1/2 credit

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

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

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

Open to grade 12; full year; 1 credit

151 CRIMINAL LAW ❖

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.

Open to grades 11-12; one semester; 1/2 credit

152 INTRODUCTION TO PSYCHOLOGY ❖

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.

Open to grades 11-12; one semester; 1/2 credit

154 INTRODUCTION TO SOCIOLOGY ❖

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.

Open to grades 11-12; one semester; 1/2 credit

155 AMERICAN WOMEN: PAST AND PRESENT ❖

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.

Open to grades 11-12; one semester; 1/2 credit



TECHNOLOGY

Technology education allows students to apply thinking skills and knowledge that connect math, science, and technology. By engaging in projects and problem-based learning, students will build habits of mind that are essential for college and career readiness. These habits of mind include systems thinking, creativity, collaboration, and effective communication. All technology courses support the New York State Learning Standards for Math, Science, and Technology.

Students working towards a Regents Diploma with Advanced Designation using the Career and Technical Education option may earn their 5-units of credit from a combination of Business, Family and Consumer Science, and/or Technology Courses.

Careers in technological fields are growing at an accelerated pace. These careers may be in the applied technologies field or in advanced areas of Science, Technology, Engineering, and Math (STEM) and require some post-secondary education. People that work in technological fields:

- Ask questions and develop models that help to understand real-life problems and make informed decisions.
- Make use of existing materials and technologies to meet current and future human needs.
- Plan and carry out investigations to improve existing technologies.
- Evaluate different kinds of systems to find opportunities for improved performance.
- Design products to satisfy consumer wants and needs.

Technology coursework incorporates these practices, preparing students with the critical thinking skills needed for success in the 21st century.

NYS LEARNING STANDARDS-Mathematics, Science, and Technology

Standard 1: Analysis, Inquiry, and Design

Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

Standard 2: Information Systems

Students will access, generate, process, and transfer information using appropriate technologies.

Standard 3: Mathematics

Students will understand mathematics and become mathematically confident by communicating and reasoning mathematically, by applying mathematics in real-world settings, and by solving problems through the integrated study of number systems, geometry, algebra, data analysis, probability, and trigonometry.

Standard 4: Science

Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Standard 5: Technology

Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

Standard 6: Interconnectedness: Common Themes

Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Standard 7: Interdisciplinary Problem-Solving

Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.



TECHNOLOGY SEQUENCES

APPLIED TECHNOLOGY COURSES (choose from any of the following)	STEM (Science, Technology, Engineering, and Math)
<p style="text-align: center;">600 Production Systems</p> <p style="text-align: center;">607 Basic Electronics</p> <p style="text-align: center;">606 Engine Operation and Maintenance</p> <p style="text-align: center;">635 Wood Tech I</p> <p style="text-align: center;">636 Wood Tech II</p> <p style="text-align: center;">643 Construction Systems</p> <p style="text-align: center;">242 Computer Programming</p> <p style="text-align: center;">641 Metal Technology</p>	<p style="text-align: center;">365 Principles of Biomedical Science (PLTW) 369 Human Body Systems (PLTW)</p> <p style="text-align: center;">611 Introduction to Engineering Design (PLTW)</p> <p style="text-align: center;">↓</p> <p style="text-align: center;">(choose from any of the following) 610 Principles of Engineering (PLTW) 609 Digital Electronics (PLTW) 642 Computer Integrated Manufacturing (PLTW)</p> <p style="text-align: center;">↓</p> <p style="text-align: center;">618 Engineering Design and Development (PLTW)</p> <p style="text-align: center;">370 Imaging Science</p> <p style="text-align: center;">623/624 Robotics Systems 1A/1B</p>

Note: Certificate Programs in Applied Technologies are available through Eastern Monroe Career Center (EMCC). For more information, please see p.46

Integrated technology opportunities are available in Art, Business, and Science courses. Please refer to the coursework offered in these departments for more information.

242 COMPUTER PROGRAMMING

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.

Open to grades 10-12; full year; 1 credit

600 PRODUCTION SYSTEMS: INTRODUCTION TO TOOLS AND MACHINES

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.

Open to grades 9-12; one semester; 1/2 credit

606 ENGINE OPERATION AND MAINTENANCE

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.

Open to grades 10-12; one semester; 1/2 credit

607 BASIC ELECTRONICS

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.

Open to grades 9-12; one semester; 1/2 credit

623 ROBOTICS SYSTEMS 1A

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.

Open to grade 9; one semester; 1/2 credit

635 WOOD TECHNOLOGY I

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.

Open to grades 10-12; one semester; 1/2 credit

636 WOOD TECHNOLOGY II

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

Open to grades 10-12; one semester; 1/2 credit

643 CONSTRUCTION SYSTEMS

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

Open to grades 10-12; full year; 1 credit

641 METAL TECHNOLOGY

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.

Open to grades 10-12; one semester; 1/2 credit

370 IMAGING SCIENCE

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.

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

Open to Grades 10-12; full year; 1/2 science credit, 1/2 technology credit

Project Lead the Way (PLTW)

Pre-Engineering Sequence

611 INTRODUCTION TO ENGINEERING DESIGN

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.

Open to grades 9-12; full year; 1 credit

610 PRINCIPLES OF ENGINEERING

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 six 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

Open to grades 10-12; full year; 1 credit

609 DIGITAL ELECTRONICS

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 3 for details.

Prerequisite: One credit in Algebra I

Open to grades 10-12; full year; 1 credit

642 COMPUTER INTEGRATED MANUFACTURING (CIM)

CIM is one of the six 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

Open to grades 10-12; full year; 1 credit

618 ENGINEERING DESIGN AND DEVELOPMENT

This course is offered every other year and will be offered in the 2016-2017 school year.

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 1 additional Project Lead the Way course

Open to grades 11-12; full year; 1 credit

624 ROBOTICS SYSTEMS 1B

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.

Open to grades 10-12; full year; 1 credit

Biomedical Science Sequence

365 PRINCIPLES OF BIOMEDICAL SCIENCE

For a description of this Project Lead the Way course, please see p. 36.

369 HUMAN BODY SYSTEMS

For a description of this Project Lead the Way course, please see p. 36.

Other Academic Programs

Program offered at Rush-Henrietta:

Alternative High School Regents Program

Program offered through Monroe BOCES #1:

EMCC - Eastern Monroe Career Center



In the Rush-Henrietta Central School District

ALTERNATIVE HIGH SCHOOL REGENTS PROGRAM

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

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

Students must apply for the program through their school counselor and participate in an intake process before a final decision is made. Not every student who applies for admission is accepted. Parental support for the program is required.

The Alternative High School Regents Program is located at the Vollmer Learning Center, 150 Telephone Road, in West Henrietta.

Additional information and applications may be obtained from the school counselor.



Through Monroe BOCES #1

EMCC - EASTERN MONROE CAREER CENTER

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

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

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

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

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

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

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

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

Work Experience Options

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

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

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

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

College Credit Options

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

Articulation Agreement

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

* Based on the successful completion of the EMCC program

Dual Enrollment

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

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

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

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

Students are offered this opportunity at a reduced tuition rate.

** College credits provided in this course book are subject to change.

EMCC Course	Credit	Academic Credit Available
Auto Services	1.00 1.00	Advanced - English 12 Basic - Technical Science
Biomedical Laboratory Technology	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 or Advanced - Technical Science
Construction Trades	1.00	Advanced - English 12 or Advanced - Technical Math
Cosmetology	1.00 1.00	Advanced - English 12 Basic - Technical Science
Criminal Justice	1.00 or 0.50 or 0.50 1.00	Advanced - English 12 or Advanced - Civics and Citizenship or Advanced - PE Basic - Technical Science
Culinary Arts	1.00	Advanced - English 12 or Advanced - Technical Math
Emergency Services	1.00 0.50	Advanced - English 12 or Advanced - Technical Science Basic - Health
Engineering & Fabrication Technology	1.00	Advanced - English 12 * or Advanced - Technical Science *
PC Repair & Network Cabling	1.00	English 12 for Seniors
Professional Health Careers	1.00 0.50	Advanced - English 12 or Advanced - Technical Science Basic - Health
Trade Electricity	1.00	Advanced - English 12 or Advanced - Technical Math
Visual Communication & Photography	1.00	Advanced - English 12

* Pending Program Approval

AUTO SERVICES: TWO-YEAR COURSE

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

Employment opportunities upon completion: Entry-level auto service positions

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

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

BIOMEDICAL LABORATORY TECHNOLOGY: TWO-YEAR COURSE

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

Employment opportunities upon completion: Forensic scientist, cytotechnologist, chemical technician, medical technologist, research associate

Further educational opportunities: Biochemistry, biotechnology, environmental science, vet technician

Industry-based exam/certifications: Certified Medical Laboratory Assistant

CISCO NETWORKING ACADEMY: ONE-YEAR COURSE

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

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

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

Industry-based exam/certifications: National Occupational Competency Testing Institute (NOCTI) exam - Computer Networking Fundamentals

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

COLLISION REPAIR TECHNOLOGY: TWO-YEAR COURSE

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

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

Further educational opportunities: Post-secondary programs in automotive and collision technology, engineering, and business management

Industry-based exam/certifications: National Occupational Competency Testing Institute (NOCTI) exam - Collision Repair/Refinishing Technology; Preparation for I-CAR and ASE certification; eligibility for Lean Six-Sigma-Yellow Belt training and certification

CONSTRUCTION TRADES: TWO-YEAR COURSE

Students learn the fundamentals of commercial and residential construction. First-year students learn the fundamental principles and theoretical concepts of wall, floor, and roof framing, and exterior finishes including windows, doors, siding and roofing. Second-year students focus on dry wall, kitchens and baths, trim and painting, and form-building for concrete structures. Training in home energy audits and truss and soffit construction is included with practical applications on site. Students work on other related projects including, sheds and decks.

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

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

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

COSMETOLOGY: TWO-YEAR COURSE

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

Students attend the program for two years, including a summer session between the junior and senior year. Upon accumulating 1,000 hours of theory and practice, students are eligible to take the NYS Cosmetology Licensing Exam.

Employment opportunities upon completion: Entry-level positions in cosmetology fields (upon successful completion of NYS board exam): hairstylist, nail technician, platform artist, make-up artist, and esthetician (skin and spa services)

Further educational opportunities: Esthetician, massage, and business programs

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

CRIMINAL JUSTICE: TWO-YEAR COURSE

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

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

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

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

CULINARY ARTS: TWO-YEAR COURSE

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

Employment opportunities upon completion: Entry-level positions in the food service industry

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

Industry-based exam/certifications: National Occupational

Competency Testing Institute (NOCTI) exam - Culinary Arts Cook Level-2, Pro-Start exam; Pro-Start, ServSafe

ENGINEERING AND FABRICATION TECHNOLOGY: TWO-YEAR COURSE

Students develop knowledge and skills in elements of design, blueprint reading, machining and metal fabrication to prepare for employment and/or post-secondary education. In the first year, students rotate every 10 weeks between Precision Machining and Welding. Students visit businesses and complete projects to help understand the interconnections and skills required for working in these fields. In the second year students select Precision Machining or Welding as an area of focus and sit for the associated industry-based technical assessment. Second year students also participate in an internship or cooperative work experience.

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

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

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

EMERGENCY SERVICES: TWO-YEAR COURSE

This program provides students the opportunity to develop knowledge and skills in fire protection technology, fire safety, emergency medical care, and radio dispatch. Students explore these professions through a variety of guest lecturers and site visitations. In the first year, students earn CPR certification and take the NYS exam for Certified First Responder. Second-year students participate in an eight-week field internship and take the NYS EMT-Basic certification exam. Students learn to follow medical direction to provide direct patient care. NYS Health Department requires attendance for all program modules (missed sessions must be made up.)

Students must turn 18 years of age by August 31st following their senior year to meet NYS eligibility for the EMT Basic Exam.

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

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

Industry-based exam/certifications: NYS Department of Health (DOH) Certified First Responder; NYS DOH Emergency Medical Technician-Basic Exam; American Heart Association CPR/AED, Certified First Responder, NYS EMT-Basic Certification

PC REPAIR & NETWORK CABLING: ONE-YEAR COURSE

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

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

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

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

PROFESSIONAL HEALTH CAREERS: TWO-YEAR COURSE

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

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

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

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

TRADE ELECTRICITY: TWO-YEAR COURSE

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

Employment opportunities: Entry-level positions such as residential/industrial electrician, electrical inspector, electrician’s helper

Further educational opportunities: Post-secondary programs in various related fields (electrical technician, electrical engineering, instrumentation technician etc.); training through ABC (Associated Builders and Contractors); apprenticeships through the local Electricians Union (IBEW)

Industry-based exam/certifications: National Center for Construction Education and Research (NCCER) Core Certification, Occupational Safety and Health Administration (OSHA) 10-hour certification, Building Performance Institute’s (BPI) HEAT Exam

VISUAL COMMUNICATION AND PHOTOGRAPHY: TWO-YEAR COURSE

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

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

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

Industry-based exam/certifications: Adobe Certified Associate–Photoshop CS4, Advertising & Design–National Occupational Competency Testing Institute

GRADUATION PLAN

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 _____				
Science _____				
LOTE _____				
Career/Technical Education _____				
Art or Music _____				
	Phys. Ed 9 _____	Phys. Ed 10 _____	Phys. Ed 11 _____	Phys. Ed 12 _____
	Health _____ (9th, 10th, 11th or 12th)			
Electives _____ _____ _____	Electives _____ _____ _____	Electives _____ _____ _____	Electives _____ _____ _____	Electives _____ _____ _____
Credits this yr. _____ Total Credits _____				
Notes:	Notes:	Notes:	Notes:	Notes

* minimum of 6.5 credits each year.



**RUSH-HENRIETTA
Central School District**

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