NEWBURGH FREE ACADEMY

CHARTING YOUR COURSE

NEWBURGH ENLARGED CITY SCHOOL DISTRICT

YOUR PATH TO GRADUATION: 2018-2019 EDITION

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Counselors by Building

NFA MAIN CAMPUS 845-563-5500	NFA NORTH CAMPUS 845-563-8410	NFA WEST CAMPUS 845-563-8410
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The NFA Counseling Web Site may be found at http://www.newburghschools.org/schools/nfa/guidance.php for all general information, course offerings contact information. click on *Charting Your Course* within the Counseling and Guidance home page for complete NFA course listings.

Graduation Requirements

Units of Study: Students are strongly advised to remain enrolled in four years of core content coursework or a CDOS or CTE aligned pathways.

Subject	Regents	Advanced Regents
English	4	4
Social Studies	4	4
Distributed as follows:		
US History (1)		
Participation in Government (.5)		
Economics (.5)		
Other (2)		
Students entering grade 9 in 2016 must earn 2 credits in Global History and Geography		
Mathematics	3	3
Distributed as follows:**		
Algebra Course (1) {Algebra I CC or Algebra I-A CC}		
Two additional mathematics courses* (2) {as found on the chart on page 13}		
Science	3	3
Distributed as Follows:		
Life Science (1)		
Physical Science (1)		
Life Science or Physical Science (1)		
Health	.5	.5
Art/Music	1	1
World Languages	1	3*
Physical Education	2	2
Electives	3.5	3.5*
Total	22	22

*** 3 Units of credit in World Language or 5 units of elective credits in Art, Music, Career and Technical Education (CTE), Business, and Technology**

**** The two additional High School course credits required can vary based on regents track identified**

There are multiple pathways to graduation, provided by the NYS Department of Education, students and their families should speak with their School Counselors to individualize each student pathway. To learn more about the various pathways, please visit http://www.p12.nysed.gov/ciai/gradreq/Documents/CurrentDiplomaRequirements.pdf.

College and Career Pathways 4+1

The New York State Board of Regents approved regulations establishing multiple, equally rigorous assessment pathways to graduation. Multiple pathways recognize the importance of engaging students in rigorous and relevant academic programs. Most students earn their Regents diploma through a traditional pathway however opportunities exist for students to take a fifth exam aligned to a selected college and career pathway.

Required Core Regents	Pathway	Corresponding Regents
Mathematics	STEM	An additional mathematics or science exam
English	Humanities	An additional social studies exam
	CTE	A NYSED approved CTE examination after the student completes a CTE program.
	CDOS	The completion of all of the components of the CDOS commencement credential.

CDOS CREDENTIAL OPTIONS

CDOS as a Pathway to Local or Regents Diploma	CDOS as a Stand-Alone Credit
Pass Regents Exams in:	Students who attempt, but do not successfully complete all of the Regents or local diploma requirements and complete all of the CDOS credential requirements.
English	
Mathematics	
Science	
Social Studies	
All the CDOS Credential Requirements	

COURSE LEVEL DEFINITIONS

1. College/Advanced Placement – For students of high ability who are capable of college level study and meet established prerequisites.
2. Honors – For students of high ability and achievement who can meet the rigors of an enriched program in that subject. Students must meet established prerequisites and maintain mandated grade point average in each subject.
3. Regents – For students demonstrating above and average ability regardless of post high school plans
4. RP – For students in need of additional instruction in a subject. Students may receive an extra period of instruction or other appropriate assistance.

COLLEGE CREDIT COURSES

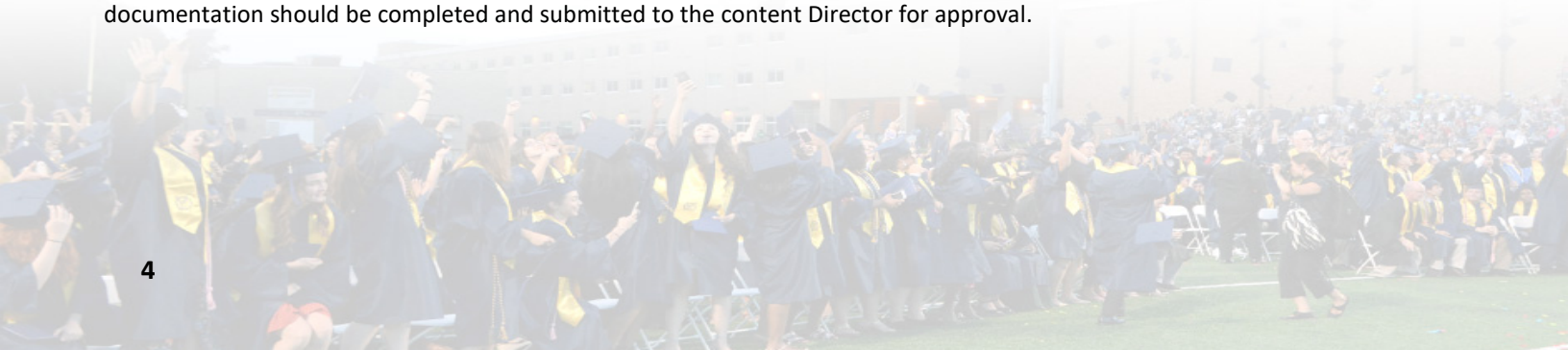
College credit can be earned through the Mercy College Articulation Program as well as SUNY Albany and Orange County Community College. Additionally, students are offered the opportunity to take Advanced Placement Examinations in May. Specific Advanced Placement courses are identified in this booklet. See your counselor for details.

ADVANCED PLACEMENT COURSES

An AP course is a college-level program developed to prepare students to take an AP exam at the conclusion of the course. Students who perform well on AP exams may find their college course requirements reduced, or may qualify for advanced coursework in their freshman year of college. Nationally, the AP program is administered by the College Board, which develops the course curriculum for each course, trains teachers and designs and administers AP examinations. Currently NFA offers 18 AP courses. The availability of these courses offerings may vary from year to year as a result of the faculty certification and student interest.

PROCESS FOR ADMISSION INTO AN ADVANCED LEVEL COURSE

Any student interested in an AP course should discuss it with their current teacher, school counselor and parents. The necessary documentation should be completed and submitted to the content Director for approval.



New York State Seal of Biliteracy

The State Seal of Biliteracy was established to recognize high school graduates who have attained a "high level of proficiency in listening, speaking, reading, and writing in one or more languages, in addition to English." Students who successfully meet the requirements will receive a New York State Seal of Biliteracy on their diplomas.

The intent of the legislation is to:

- encourage the study of languages.
- identify high school graduates with language and biliteracy skills for employers.
- provide universities with information about applicants seeking admission.
- provide students with twenty-first century skills.
- recognize the value of foreign and native language instruction in schools.
- affirm the value of diversity in a multilingual society.

Who is Eligible to Receive the Seal of Biliteracy?
Answer: Students who graduate from high school having mastered English and a second language.
Mastery: Defined as being able to speak, understand, read and write the language at grade level or almost grade level.

Students can acquire proficiency in a second language through different means. Some examples include:

- A student arrives to the district having mastered a language other than English.
- A student's family speaks a language other than English at home and learns how to read, write, speak, and understand it.
- A student learns a second language through the district's Dual Language and World Language Programs.
- A student learns a second language in a private or independent Languages Institute or by spending time in a country where the second language is spoken.

Earning the New York State Seal of Biliteracy

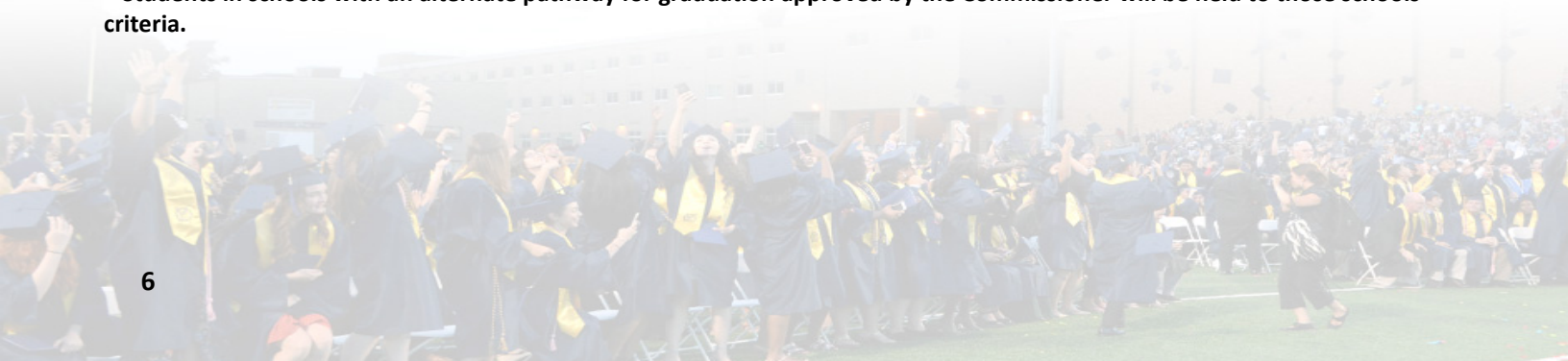
A. Students wishing to receive the New York State (NYS) Seal of Biliteracy must complete all requirements for graduating with a NYS Regents diploma*; and

B. In addition to the above minimum requirement, students wishing to receive a NYS Seal of Biliteracy must earn three (3) points in each of the two (2) areas listed below:

Criteria for Demonstrating Proficiency in English	Point Value	Criteria for Demonstrating Proficiency in a World Language	Point Value
Score 75 or higher on the NYS Comprehensive English Regents Examination or score 80, or higher on the NYS Regents Examination in English Language Arts (Common Core)* or English Language Learners (ELLs) score 75 or above on two Regents exams other than English, without translation.	1	Complete a Checkpoint C level World Language course, with a grade of 85 or higher, or a comparable score using another scoring system set by the district and approved by the Commissioner, for both the coursework and final examination consistent with Checkpoint C standards.	1
ELLs score at the Commanding level on two modalities on the New York State English as a Second Language Achievement Test (NYSESLAT).	1	Provide transcripts from a school in a foreign country showing at least three years of instruction in the student's home/native language in Grade 8 or beyond, with an equivalent grade average of B or higher.	1
Complete all 11th and 12th grade ELA courses with an average of 85 or higher or a comparable score using another scoring system set by the district and approved by the Commissioner.	1	For students enrolled in a bilingual education program, complete all required Home Language Arts (HLA) coursework and the district HLA exam with an 85 or higher, or a comparable score using another scoring system set by the district and approved by the Commissioner.	1
Achieve the following scores on the examinations listed below: -3 or higher on an Advanced Placement (AP) English Language or English Literature examination, or -80 or higher on the Test of English as a Foreign Language (TOEFL).	1	Score at a proficient level on an accredited Checkpoint C World Language assessment (See "Checkpoint C World Language Assessments and Minimum Scores" on the following page.)	1
Present a culminating project, scholarly essay or portfolio that meets the criteria for speaking, listening, reading, and writing established by the district's Seal of Biliteracy Committee to a panel of reviewers with proficiency in English.	2	Present a culminating project, scholarly essay, or portfolio that meets the criteria for speaking, listening, reading, and writing established by the district's Seal of Biliteracy Committee and that is aligned to the NYS Checkpoint C Learning Standards to a panel of reviewers with proficiency in the target language.	2

Testing accommodations recommended in an individualized education program or section 504 Accommodations Plan must be provided for all State and districtwide assessments administered to students with disabilities, as consistent with State policy. Students with disabilities should also receive these testing accommodations on Checkpoint C World Language Assessments, as permitted.

*** Students in schools with an alternate pathway for graduation approved by the Commissioner will be held to those schools' criteria.**



Requirements for Grade Level Progression

The Newburgh Enlarged City School District Board of Education established the following grade level requirements.

GRADE LEVEL CLASSIFICATION AND REQUIRED CREDITS FOR PROGRESSION

9th Grade	10th Grade	11th Grade
Physical Education (.5)	Physical Education (.5)	
(1) Credit from: English 9 or Global Studies or U.S. History AND (1) Credit from any of the following English 9 Mathematics Science U.S. History	(6) Credits from: English 9 Global Studies I and II Mathematics Science AND (4) Elective Credits	(2) Credits each from: Mathematics Science
(2.5) Credits Total	(10) Credits Total	15.5 Credit Total

NCAA & Athlete Eligibility

NCAA APPROVED COURSES

If you are planning to enroll in college as a freshman and you wish to participate in intercollegiate athletics, you may need to be certified by the NCAA Eligibility Center. Students must take prescribed core courses and obtain the necessary SAT or ACT scores and grade point average (GPA) to be eligible to play intercollegiate sports. The time to discuss this with your counselor is when you are planning your high school courses. See your counselor for more details regarding participation in intercollegiate athletics and eligibility. Students are responsible for tracking their eligibility status.

COLLEGE BOUND STUDENT ATHLETE ELIGIBILITY CHECKLIST

- ❑ Review eligibility requirements in your freshmen/sophomore years - www.eligibilitycenter.org.
- ❑ Register at the beginning of your junior year at www.eligibilitycenter.org.
- ❑ Review your transcript with your School Counselor. Be sure you have all the required core classes for graduation and NCAA (22 credits required for graduation).
- ❑ Take the SAT/ACT – Division I uses a sliding scale to match test scores and core grade-point averages (GPA) http://fs.ncaa.org/Docs/eligibility_center/Quick_Reference_Sheet.pdf.
- ❑ Ask your School Counselor to submit your transcript when you create a profile.
- ❑ Request a final transcript with proof of graduation through Naviance.

NCAA APPROVED COURSES

ENGLISH	SOCIAL STUDIES	MATHEMATICS	SCIENCE	LANGUAGE
AFRICAN AMERICAN LITERATURE	AFRICAN-AMERICAN STUDIES	ALGEBRA 1	AP ENVIRONMENTAL SCIENCE	AP ITALIAN LANGUAGE
AP ENGLISH LITERATURE	AP GOVERNMENT US	ALGEBRA II COMMON CORE HONORS	AP PHYSICS 1	AP SPANISH LANGUAGE
CREATIVE WRITING	AP MACROECONOMICS	ALGEBRA II COMMON CORE REGENTS	ASTRONOMY	AP SPANISH LITERATURE
ENGLISH 10 HONORS	AP MACROECONOMICS AND GOVT	AP COMPUTER SCIENCE A	ASTRONOMY AND METEOROLOGY	INTENSIVE ITALIAN
ENGLISH 10R	AP US GOVT AND POLITICS WITH ECO	AP CALC AB	AP BIOLOGY	INTENSIVE SPANISH
ENGLISH 11 HONORS	AP US HISTORY	AP CALC BC	AP CHEMISTRY	ITALIAN 1
ENGLISH 11R	AP WORLD HISTORY	GEOMETRY COMMON CORE	CHEMISTRY HONORS	ITALIAN 2
ENGLISH 12 HONORS	ECONOMICS HONORS	GEOMETRY COMMON CORE HONORS	CHEMISTRY R	ITALIAN 3
ENGLISH 12 R	ECONOMICS R	PRE-CALC	EARTH SCIENCE HONORS	ITALIAN 5
ENGLISH 9 HONORS	GLBL ST 1 HONORS	PRE-CALC HONORS	EARTH SCIENCE R	SP NAT SPK
ENGLISH 9R	GLBL ST 1R	PROB & STAT	ENVIRONMENTAL SCIENCE	SPAN LANG CULT
JOURNALISM	GLBL ST 2 HONORS	ALGEBRA 1A (.5 CREDIT)	FIELD BIOLOGY	SPANISH 1
SENIOR ENGLISH	GLBL ST 2R	ALGEBRA 1B (.5 CREDIT)	GEN CHEM	SPANISH 2
ENGLISH 9 RP	GOVT R	AP PRINCIPLES COMPUTER SCIENCE	HUMAN ANAT & PHYS	SPANISH 3
ENGLISH 10 RP	GOVT HONORS		FORENSIC SCIENCE	SPANISH 4T
ENGLISH 11 RP	AP PSYCHOLOGY		LIVING ENVIRONMENT R	SPANISH/ CONVERSATIONAL
MULTICULTURAL LITERATURE	PSYCHOLOGY		LIVING ENVIRONMENT HONORS	
FRESHMAN ENGLISH I	SOCIOLOGY		PHYSICS C/AP	
FRESHMAN ENGLISH II	US HIST R		PHYSICS REGENTS	
	US HISTORY HONORS		URBAN ECOLOGY	

English Language Arts

Potential Sequence of Study for English Graduation Requirements:

LEVEL	GRADE 9	GRADE 10	GRADE 11	GRADE 12
HONORS	English 9 Honors	English 10 Honors	English 11 Honors	A.P. English Literature English 12 Honors Freshman English I* Freshman English II*
REGENTS	English 9 Regents	English 10 Regents	English 11 Regents	English 12 Regents
REGENTS PREP	English 9 Regents Prep	English 10 Regents Prep English 11 Regents	English 11 Regents Prep English 11 Regents	Senior English English 12 Regents
*As of 2017-2018, PTech/Excelsior offering only.				

ENGLISH ELECTIVE PROGRAMS (for seniors, and juniors when applicable)
African-American Literature Multicultural Literature Independent Study A Creative Writing Journalism

1. A written examination and/or a student portfolio will be used to provide a "final exam" mark in all English courses with the exception of when students take the ELA Common Core Exam.

2. The ELA (Common Core) Regents Examination will typically be given in Grade 11 or Grade 10 Honors as a stand-alone test. Students completing Grade 11 who pass the course and the Regents exam will be scheduled for one of four English 12 courses. Students who pass the course but not the Regents exam will be scheduled into Senior English, when offered, and will take the ELA Common Core Regents Exam in January of their senioryear.

3. In addition to four full year courses in English (9, 10, 11, 12) that are required for graduation, students can opt to take additional English electives that are offered as half-year courses.
4. NOTE: Scheduling of the electives is enrollment driven. That is, if a sufficient number of students enroll for a course, at least one section will be scheduled. The current district policy is that fifteen (15) students will be considered the minimum number for offering a course.

5. The general course requirements along with the writing and learning outcomes for all courses are outlined in more detail on the grade level scope and sequence.

English Language Arts Courses

English 9 Honors - CRS 091 **[Credit 1.0]**

This course is intended for students who have demonstrated a high-level of proficiency in reading and writing, have earned an 85% or higher in previous English courses, and who may have scored a high 3 or a 4 on New York State English Language Arts assessments. This course has a faster pace than its Regents counterpart. Students skills in reading, writing, listening and speaking should enable them to read with excellent comprehension, think critically about and analyze more difficult text and literature. Through frequent composition and literary essays evaluated through rubrics, the importance of correct grammar and writing techniques are reinforced. Vocabulary, literary analysis and communication, and collaboration skills are essential components. The extensive work in writing includes the preparation of an inquiry-based learning project.

English 9 Regents - CRS 092 **[Credit 1.0]**

This course builds the foundations of reading, writing vocabulary acquisition and communications skills needed for successful completion of a sequence in English. Students will study major authors through a variety of genres and participate in written and oral discussions regarding the works. The extensive work in writing may include the preparation of an inquiry-based learning project.

English 9 Regents Prep - CRS 101 **[Credit 1.0]**

This course is designed for students who require additional practice in basic English Language Arts skills. Students enrolled in this course may have scored a 1 or a 2 on New York State English Language Arts assessments and/or received a low score on other ELA assessments. Curriculum includes reading, writing, and studying literature, speaking and listening, with the major emphasis on reading comprehension and writing skills. Course work is similar to English 9 Regents, with the advantage that classes are co-taught (two certified English teachers) in order to provide for smaller learning groups, differentiation of instruction, and more individualized attention. This is to ensure skills are mastered by all students.

English 10 Honors - CRS 001 **[Credit 1.0]**

This course continues to build upon the foundations of English 9 and English 9 Honors. Through composition and literary essays, the importance of correct grammar and writing techniques are reinforced. Vocabulary, literary analysis and communication are emphasized. The extensive work in writing includes the preparation of an inquiry-based learning project.

Prerequisite: Successful completion of English 9H with at least an 85% average and a recommendation from English 9 teacher.

Note: Students will take the ELA (Common Core) Regents exam as a stand-alone examination at the end of this year of study.

English 10 Regents - CRS 002 **[Credit 1.0]**

The course continues to build upon the foundations of English 9 Regents. There is extensive work in expository writing and literary analysis, and argument-based writing. Fundamentals of grammar, spelling, vocabulary and speech are emphasized.

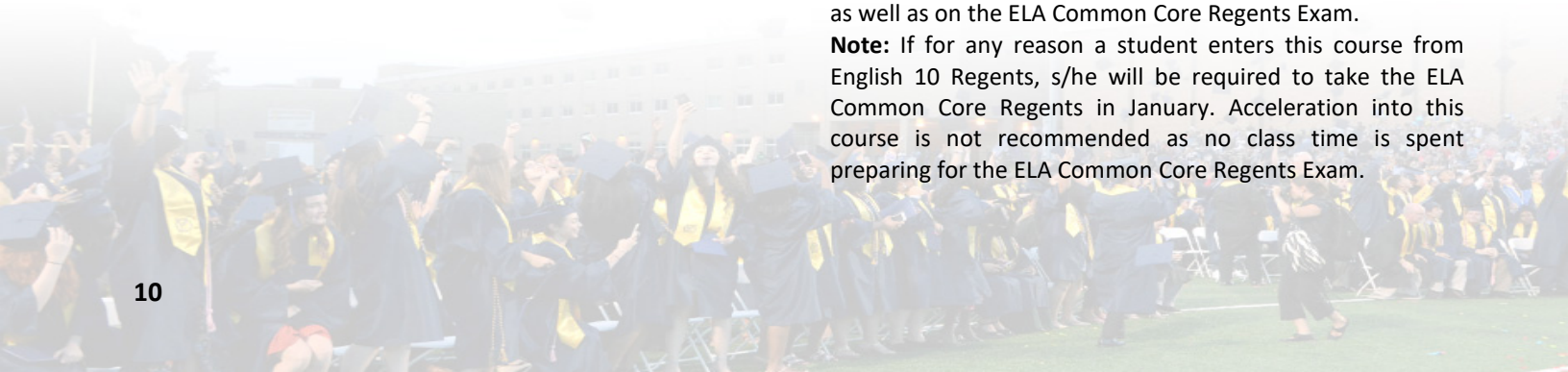
English 10 Regents Prep - CRS 004 **[Credit 1.0]**

This course is designed for students who require additional practice in reading and writing to improve their performance in basic language arts. Curriculum includes reading, writing, and studying literature, speaking and listening, with the major emphasis on reading comprehension, argument-based writing, and literary analysis. Course work is similar to English 10 Regents, with the advantage that classes are co-taught (two certified English teachers) in order to provide for smaller learning groups, differentiation of instruction, and more individualized attention. This is to ensure skills are mastered by all students.

English 11 Honors - CRS 011 **[Credit 1.0]**

This course builds upon the foundations of English 10 Honors. Through composition and literary essays, the importance of correct grammar and writing techniques are reinforced. Vocabulary, literary analysis and communication are emphasized. The extensive work in writing includes response to literature, both fiction and nonfiction. Both the depth and breadth of study are greater than for Regents English classes. Prerequisites: Recommendation letter from previous high school English teacher, and completion of English 10 Honors with a final average of at least 85% in both English 10 Honors as well as on the ELA Common Core Regents Exam.

Note: If for any reason a student enters this course from English 10 Regents, s/he will be required to take the ELA Common Core Regents in January. Acceleration into this course is not recommended as no class time is spent preparing for the ELA Common Core Regents Exam.



English 11 Regents-CRS 012 **[Credit 1.0]**

The course continues to build upon the foundations of English 10 Regents. There is extensive work with expository writing and literary analysis of a variety of genres. Fundamentals of grammar, spelling, vocabulary and speech are emphasized.

Requirements: Students are required to take the ELA Common Core Regents Exam in January.

English 11 Regents Prep - CRS 014 **[Credit 1.0]**

This course is designed for students who need additional practice in basic language arts skills. The curriculum includes reading, writing, speaking, and listening, through literature, with the major emphasis on reading and writing. Course work is similar to English 11 Regents, with the advantage that classes are co-taught (two certified English teachers) in order to provide for smaller learning groups, differentiation of instruction and more individualized attention. This is to ensure skills are mastered by all students.

Advanced Placement English Literature & Composition CRS 050 **[Credit 1.0]**

This course can be taken for 3.0 college credits.

A combination of sophisticated literature and writing experiences, this course is designed for students who wish to encounter college level materials, instruction and responsibilities. Understanding and analysis of writing styles will be emphasized. Aspects of literary criticism, interpretation, and form generate discussions on social and ethical issues as well as create a sophisticated format for written thought. In-depth study of selected authors and time periods develops the critical thinking skills necessary for commentary on modern issues. Although the Advanced Placement Examination is not a requirement of the course, special time will be allocated for in-depth preparation, and students are strongly urged to enroll for the examination.

Prerequisites: Past indicators of success in this course are superior academic performance in English 11 Honors with a written recommendation to the English Director from the eleventh-grade teacher, an English average of 85% unweighted, and a positive work ethic with a motivation for self-improvement. In order to move forward with enrollment, students may be required to complete a summer assignment prior to the first day of class.

Requirements: One essay on each literature unit, several essays on unique literary forms, two term papers, and participation in extensive class discussions are required. All rules and regulations will be followed per the Articulation Agreement with the University. The course prepares students for an Advanced Placement examination in. In order to move forward with enrollment, students may be required to complete a summer assignment prior to the first day of class.

English 12 Honors - CRS 034 **[Credit 1.0]**

This is a full year course for students interested in developing 21st century, college level skills.

Prerequisites: Passing grade of 85% in English 11 Honors and teacher recommendation.

Requirements: For each unit, the student will be prepared to participate in discussions of the literary works assigned. Writing assignments will simulate freshman literature or AP English assignments in development and expectation and will include reaction papers, research projects, and in-depth study of major works of literature.

English 12 Regents - CRS 019 **[Credit 1.0]**

This course will include: high quality literature, reader response essays, personal essay (including college admissions essay), compare contrast, persuasive essays, creative writing, poetry as literature, poetry writing, grammar, usage and an inquiry-based learning project or research paper.

Senior English - CRS 020 **[Credit 1.0]**

In addition to studying high quality literature, students will prepare for successful completion of the ELA Common Core Exam.

Note: Students in this course have not passed the ELA Common Core Regents Exam.

Freshman English I (ENG 101) 081T **[Credit 1.0]**

This course can be taken for 3.0 college credits.

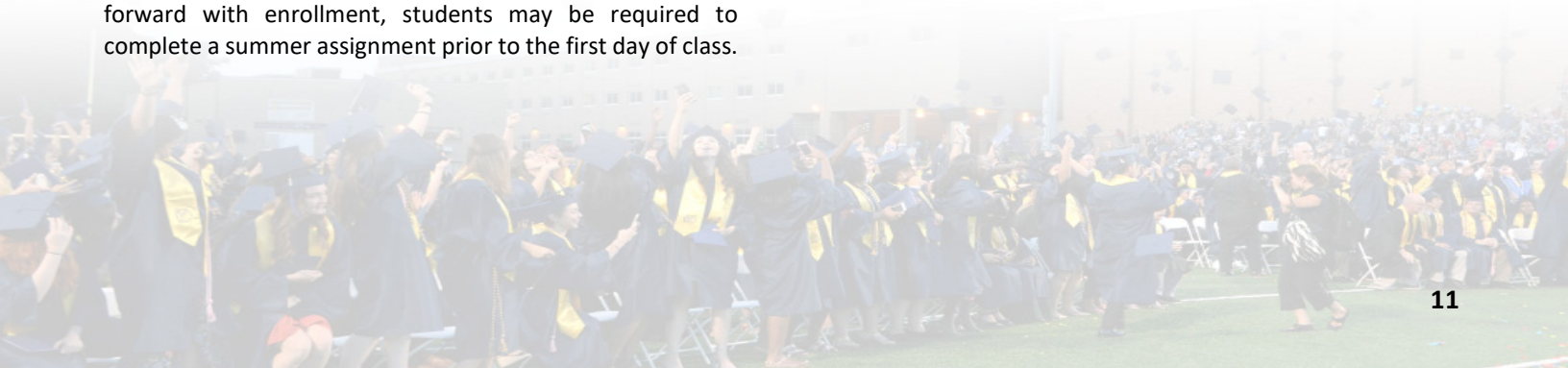
This first course in the Freshman English sequence introduces college-level writing and revision, construction of expository essays, and research skills. Reading and class discussion center on the formal and informal essay. Research essay is required. (GE 10 when combined with COM 101)

Note: Students who have placed into any developmental reading or writing courses must complete them before taking ENG 101.

Freshman English II (ENG 102) 082T **[Credit 1.0]**

This course can be taken for 3.0 college credits.

In this second course in the sequence, students learn to read critically, to organize supporting details, and to develop coherent oral and written arguments. Fiction, drama and poetry are used as common texts. An analytical research paper is required. (GE 7) Prerequisite: ENG 101



English Language Arts Electives

These courses are interest and enrollment-driven and will only be offered if at least 15 students are enrolled. Seniors and juniors (when applicable) are eligible to enroll.

African-American Literature - CRS 026 [Credit 0.5]

This course scans the major contributions of African-American writers. The course will focus primarily on the autobiographies, novels, dramas, short stories, and poetry dealing with the internal and external struggles of the black American in the period from the early 1900's to the present.

Journalism - CRS 051 [Credit 0.5]

This course is designed to develop and refine the skills and techniques for writing in journalistic style for newspapers and magazines. Techniques in gathering, analyzing, and writing news articles and features articles, editorials, and other journalistic styles will be studied and applied in order to create a profile portfolio. The student will learn the fundamentals of editing, identifying sources, organizing materials, planning, and outlining the story. Specific historical eras may be examined. A team project on ethics and an individual paper on censorship may be required. Students must demonstrate a good understanding of rules related to spelling and grammar. Students will be expected to meet deadlines.

Creative Writing - CRS 030 [Credit 0.5]

This course is designed to open the realm of creative writing to the student. Opportunities for creative writing include, but are not limited to: autobiographical entries, play writing, sketches, poems, short stories, journal entries, and art and music interpretations. The student will be evaluated as much on the effort put forth as on the completed products. Additional topics discussed are future prospects in creative writing and its technology, digests, publishing markets, the scope of writings, and sharing of work with peers.

Independent Study in Language Arts A - CRS 048 [Credit 0.5]

This course may be arranged on a topic of interest appropriate to language arts with the mutual consent of a teacher having expertise on the selected topic. The teacher will act as advisor and mentor for the course of study.

Prerequisites: Successful completion of English 11 and the ELA Common Core exam.

Requirements: Completion of a project to include written documentation as mutually determined by the student, advisor (teacher) and approved by the Director of English.

Multicultural Literature - CRS 018 [Credit 0.5]

This course is based on the belief that is important to honor the heritage of all scholars and to provide an awareness of all cultural groups within the school population. Every effort has been made to include literature from thirty cultures that reflect the composition of the population of the Newburgh Enlarged City School District. Classical authors will be paired with new voices in an overview of many genres of literature for studies intended for students of all levels of ability. Participation in class discussion, journal entries, development of a portfolio of student work, essays, quizzes, and tests are requirements.

Mathematics

Sequence of Study for Mathematics Requirements

Year	Regents Track (1)	Regents Track (2)	Regents Track (3)
9th Grade	Algebra I CC	Geometry CC Honors	Algebra I-A
10th Grade	Geometry CC	Algebra II CC Algebra II CC Honors	Algebra I-B
11th Grade	Algebra II CC	Pre-Calculus Honors Pre-Calculus Pre-College Algebra	Geometry NR Geometry CC Pre-College Algebra
12th Grade	Pre- Calculus Pre-Calculus Honors* Pre College Algebra Advanced College Algebra Probability and Stat	AP Calculus AB or BC Advanced College Algebra Applied Calculus	Advanced College Algebra Algebra II CC Pre Calculus

*Teacher Recommendation Only

Students that wish to obtain an advanced Regents Diploma must successfully complete Algebra I Common Core, Geometry Common Core and Algebra II Common core. All "appropriate electives" can be used to fulfill the number of credits mandated by NYS Ed above and beyond the minimum graduation requirement of 3 credits. It is the expectation of the mathematics department that **all students expecting to enroll in a 2 or 4-year post-secondary institution** to attain at least 4 credits of mathematics.

Appropriate Electives that can be taken during the indicated grade:

Financial Literacy (11,12)
Advanced College Algebra (11,12)
Applied Calculus (12)
AP Principles of Computer Science(Beginner) (11)
AP Computer Science (11,12)
AP BC Calculus (12)
AP AB Calculus (12)
Pre-College Algebra (11,12)
Exploring Computer Science (9, 10, 11,12)
Probability and Statistics (11,12)
Digital Citizenship (9, 10, 11, 12)

Mathematic Courses

Algebra 1-Common Core (9,10,11,12) - CRS 315 [Credits 1.0]

Students enrolled in this course will follow the NYS Common Core Curriculum Standards. They will develop skills and processes using a variety of techniques to successfully solve problems in a variety of settings. Problem situations will include linear equations in one variable, quadratic functions with integral coefficients and roots as well as absolute value and exponential functions. Coordinate geometry will be used to make connections between analytical and geometric representations. Measurement in problem solving will include calculating rates using appropriate units and converting within measurement systems. Data analysis will include measures of central tendency, correlation, causation, and using lines of best fit to make predictions. Elementary probability and statistics theory will be used to determine probability of independent, dependent, and mutually exclusive events.

Prerequisites: Successful Completion of Eighth Grade Mathematics and a minimum of a Level 2 in the NYS Math 8 Assessment.

Course Requirements: All tests, quizzes, assignments and NYS Algebra I Regents must be completed.

Algebra 1-A Common Core (9) - CRS 313 [Credit 1.0]

Students will follow the NYS Algebra 1 Common Core Curriculum. This course is the first year of a two-year course of study to complete Algebra 1 Common Core. This first year covers foundational skills while embedding them within the Algebra 1 Common Core Curriculum. Students that score level 1 on the state assessments in math or have failed eighth grade mathematics will be enrolled into this course.

Prerequisites: Level 1 on NYS Math 8 Assessment or have failed 8th grade mathematics

Course Requirements: All tests, quizzes, assignments and local final exam must be completed

Algebra 1-B Common Core (10,11) CRS- 316 [Credit 1.0]

Students will follow the NYS Algebra 1 Common Core Curriculum. This course is the second year of a two-year course of study to complete Algebra 1 Common Core. Students enrolled in this course will take the Algebra 1 Common Core Exam in June. This second year covers foundational skills embedded within the Algebra 1 Common Core Curriculum while completing the curricular requirements to take the Regents Examination in June.

Prerequisites: Successful completion of Algebra 1-A

Course Requirements: All tests, quizzes, assignments and Algebra 1 Regents Exam must be completed

Pre-College Algebra (11,12) - CRS 306 [Credit 1.0]

This is a non-calculator based course designed for students to acquire and maintain enough skills to successfully pass the college placement exam to ensure that when they enter their first year of College they will be able to test into credit bearing math courses. In addition, students will take practice placement exams to indicate their readiness and areas of weakness.

Prerequisites: 2 years of high school math credit

Course Requirements: All tests, quizzes, assignments and local final exam must be completed

Advanced College Algebra (11,12) CRS 307 [Credit 1.0]

This is a non-calculator based course designed as a 3rd or 4th credit for students planning to attend a two or four year college, but will not major in mathematics, sciences or engineering. It will cover algebraic topics intended to preview the course work that students will be exposed to in Actual College Algebra.

Prerequisites: 2 years of high school math credit

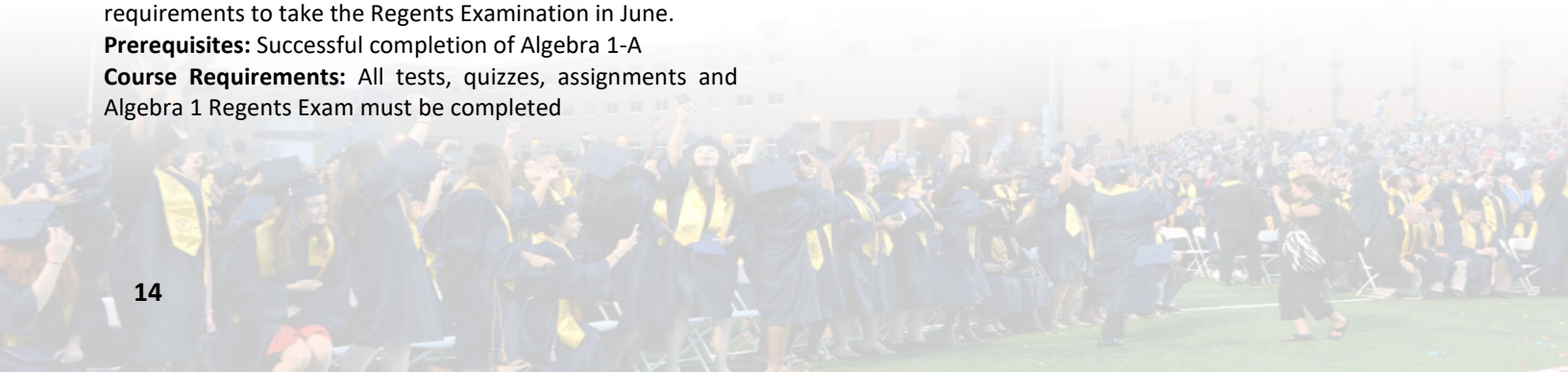
Course Requirements: All tests, quizzes, assignments and local final exam must be completed

Geometry – NR (10,11.12) CRS 333 [Credit 1.0]

This course is offered to students who have successfully completed the Algebra 1 and the Algebra 1 Common Core Regents Exam and who wish to obtain an additional math credit exclusive of the rigors of formal, analytic proofs. The course examines set theory and rules with applications to segment and angle congruence. It will include a brief exposure to methods of proving triangle congruence. Students will work with rules involving triangles, parallel lines, quadrilaterals, regular polygons, circles, basic right triangle trigonometry, similarity, and area.

Prerequisites: Successful completion of NYS Algebra I Common Core Course and Regents Exam.

Course Requirements: All tests, quizzes, assignments and local final exam must be completed.



Geometry Common Core (9,10,11,12) - CRS374 [Credit 1.0]

This course follows the NYS Geometry Common Core Curriculum Standards. Students will apply an integrated approach to the study of geometric relationships and properties of geometric figures. Topics will include congruence and similarity of triangles, transformations including rotations, reflections, translations, glide reflections, and coordinate geometry. The course is meant to lead students to verify conclusions from hypotheses using formal and informal methods of proof.

Prerequisites: Successful completion of Algebra I Common Core Course and Regents Exam.

Course Requirements: All tests, quizzes, assignments and Regents Examination must be completed.

Geometry Common Core Honors (9,10) - CRS 37 [Credit 1.0]

This course parallels the Geometry Common Core Curriculum, however, students will cover the material in greater depth, and are exposed to advanced and enrichment topics.

Prerequisites: Successful completion of Algebra 1 Common Core Course and Regents with a minimum of 75%

Course Requirements: All tests, quizzes, assignments and Regents Examination must be completed.

Algebra 2 Common Core (10,11,12) - CRS 3170 [Credit 1.0]

This course will follow the NYS Algebra II Common Core Curriculum Standards. This course will deeply expand upon the algebraic concepts experienced in Algebra I Common Core. Course will build on work with linear, quadratic, and exponential functions, students will extend knowledge and understanding to polynomial, rational and radical functions. Students will expand their abilities to model situations and solve equations over the set of complex numbers. Students will apply their knowledge to solving exponential equations using the property of logarithms.

Prerequisites: Successful Completion of Geometry Common Core Course and Regents Exam

Requirements: All tests, quizzes, assignments, and Regents Exam must be completed.

Algebra 2 Common Core Honors (10,11,12) - CRS 3171 [Credit 1.0]

This course will follow the NYS Algebra II Common Core Curriculum Standards, but the topics studied all are of greater depth than the regular common core course. This course will deeply expand upon the algebraic concepts experienced in Algebra I Common Core. Course will build on work with linear, quadratic, and exponential functions, students will extend knowledge and understanding to polynomial, rational and radical functions. Students will expand their abilities to model situations and solve equations over the set of complex numbers. Students will apply their knowledge to solving exponential equations using the property of logarithms.

Prerequisites: Successful Completion of Geometry Common Core Course and Regents Exam

Requirements: All tests, quizzes, assignments, and Regents Exam must be completed.

Pre-Calculus (11,12) - CRS 342 [Credit 1.0]

A study in Pre-Calculus mathematics is intended to provide the background necessary for calculus. Topics include Algebra, Trigonometry, Exponents, Natural Logarithms, Conic Sections, Limits, Matrices and Theory of Equations. Emphasis is on graphing polynomial, rational, exponential, logarithmic, and trigonometric functions. Graphing calculators and scientific calculators are frequently used by the students.

Prerequisites: Pass Integrated Algebra 1, Geometry, and Algebra 2 courses and Regents exams.

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

Pre-Calculus Honors (11,12) – CRS 331 [Credit 1.0]

This course can be taken for 3 Mercy College Credits upon meeting all college requirements. Topics include Relations and Functions, Algebra of Functions, Composite Functions, Polynomial Functions, Exponential and Logarithmic Functions, Trigonometric Functions, Parametric Equations, Polar Equations, Conic Sections, Theory of Equations, Vectors, Matrices, and Determinants, Series and Sequences, Limits. This course uses a graphing calculator and has practical applications of science and math.

Prerequisites: Pass Algebra 2 Common Core Honors with an 85 unweighted average and the Algebra 2 Common Core Regents Exam.

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

Applied Calculus (12) - CRS 339 [Credit 1.0]

In this course, students are provided with a foundation in single-variable differential and integral calculus concepts and techniques that are applicable to topics in business, economics, social and life sciences. Calculus theory is developed with a hands-on, intuitive, data collecting and extending approach. Emphasis is on applying calculus skills to these and other branches of knowledge. Applications involving exponential and natural logarithmic functions are included.

Prerequisites: Pass Pre-Calculus or Pre-Calculus Honors Course Requirements: All tests, quizzes, assignments and local final exam must be completed.

Probability and Statistics (11,12) CRS-327 [Credit 1.0]

This course can be taken for 3 Mercy College credits upon meeting all college requirements. This course is designed to provide the student with an understanding of the persuasiveness of probability and statistics in today's society and the means to use the concepts and formulas to problem solve. Topics included are expected values, conditional probability, binomial distribution, data analysis (random sampling and sampling distribution), and measures of association. Method of instruction will range from demonstrations, cooperative learning activities, and individual work to lecture, research, and projects. It is beneficial to anyone planning to go on to higher learning as well as the student who simply wants to problem solve.

Prerequisites: Pass Algebra 1 Common Core course and Regents exam, Geometry Common Core and Algebra 2 Common Core courses.

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

AP Calculus AB (11,12) - CRS 340 [Credit 1.0]

This course can be taken for 4 Mercy College credits upon meeting all college requirements. Topics studied include elementary functions, differential calculus, applications of the derivative, integral calculus, techniques of integration, the definite integral, and applications of the integral. This course meets for an extra period every other day.

Prerequisites: Pass Pre-Calculus or Pre-Calculus Honors with an 85 unweighted grade.

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

AP Calculus BC (12) CRS 330 Credit 1.0

This course can be taken for 8 Mercy College credits upon meeting all college requirements. This is an intensive course in the calculus of functions of a single variable. In addition to the topics covered in Calculus AB, the Calculus BC course includes other topics such as infinite series and polar coordinates, parametric equations, and vectors. This course meets for an extra period every other day.

Prerequisites: Pass Pre-Calculus Honors with a 90 or above unweighted grade

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

AP Computer Science Principles (10,11,12) - CRS-355 [Credit 1.0]

This course follows the new AP content as an introduction to computers, computing, the internet, logical reasoning, logic strings, and drawing conclusions from trends

Prerequisites: Successful completion of Geometry Common Core Course and Regents Exam.

Course Requirements: All tests, quizzes, assignments, and local final exam must be completed.

AP Computer Science (11,12) CRS-357 [Credit 1.0]

Computer science embraces problem solving, hardware, algorithms, and perspectives that help people utilize computers to address real-world problems in contemporary life. AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science a course curriculum is compatible with many CS1 courses in colleges and universities. Course may be taken for

AP Credit Prerequisites: Successful Completion of Algebra II Common Core Regents Course.

Course Requirements: All tests, quizzes, assignments, and local final exam must be completed.

Financial Literacy (10,11,12) - CRS 390 [Credit 1.0]

This course offering is to provide students with a basic understanding of mathematics as it is applied to the post high school world. Topics include, budgeting, Interest Rates as applied to banking, credit cards, mortgages, car loans, monthly payments, managing personal finances, employment and other topics. This course is not intended for students that are pursuing the Common Core three-year sequence track in mathematics.

Prerequisites: Passed the Integrated Algebra course and Regents Exam

Course Requirements: All tests, quizzes, assignments and local final examination must be completed.

Medical Mathematics (10,11,12) (North Campus Only) CRS-391 [Credit 1.0]

North Campus- This course prepares students in the LPN program to strengthen the fundamental mathematics skills that are essential to the nursing field. Completion of this course will help students prepare for the TAPE and TEAS exams as well as for the foundational mathematics they will encounter in the nursing field. Topics include: reading measurements, basic operations, ratio/proportion, solving equations, percentages, military time units, rounding and place value, exponents, unit conversions, exponential growth, formula manipulations, budgeting, estimations, data analysis, interpreting graphs, etc.

Prerequisites: Successful completion of two math credits one being Geometry Common Core

Course Requirements: All tests, quizzes, assignments, and local final exam must be completed.

Digital Citizenship (9, 10, 11,12) - CRS-392 [Credit 0.5]

This course offering is to provide students with a basic understanding of how the internet works, the proper way to use it and ways to cultivate and manage their digital information. Topics would include cyber-bullying, phishing, identity theft hacks, digital footprints, virtual private networks, digital citizenship, etc.

Prerequisites: None

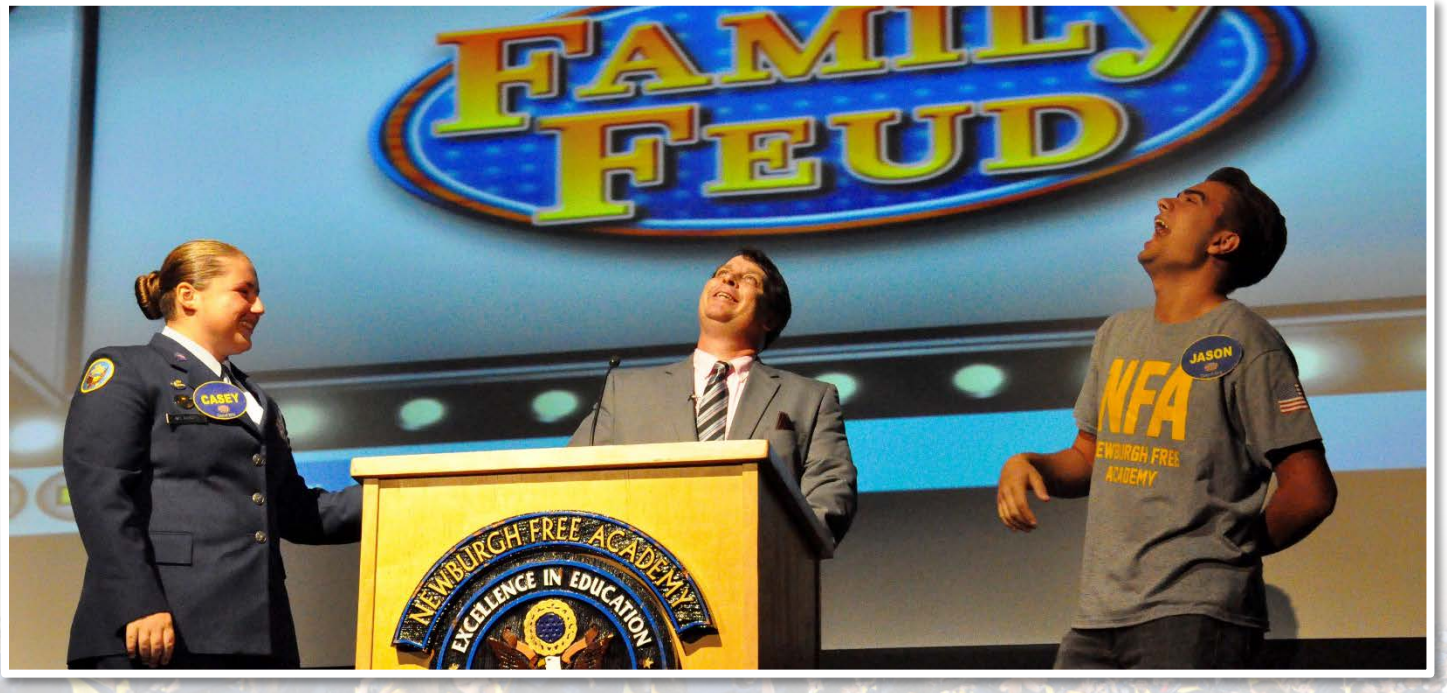
Course Requirements: All tests, quizzes, assignments, and projects must be completed.

Exploring Computer Science (9,10,11,12) (North Campus Only) - CRS 3500 [Credit 1.0]

This course is designed Exploring Computer Science is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Topics focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems. Topics include: programming languages (Scratch and Arduinos), computer hardware/software, networks, data analytics, engineering process, etc.

Prerequisites: None

Course Requirements: All tests, quizzes, assignments, and projects must be completed.



Science

Level	Grade 9	Grade 10	Grade 11	Grade 12
AP/College Electives			• AP Biology • AP Chemistry • AP Environmental Sci • AP Physics 1 • AP Physics C: Mechanics • AP Physics C: Electricity & Magnetism • Forensic Science • Science Research in the High School	• AP Biology AP Chemistry • AP Environmental Sci AP Physics 1 • AP Physics C: Mechanics • AP Physics C: Electricity & Magnetism • Forensic Science • Science Research in the High School
Honors	• Biology • Earth Science • Living Environment	• Biology • Chemistry • Earth Science	• Chemistry • Earth Science • Human Anatomy & Physiology	• Chemistry • Earth Science • Human Anatomy & Physiology
Regents	• Living Environment • Earth Science	• Living Environment • Earth Science • Chemistry Physics	• Living Environment • Earth Science • Chemistry • Physics	• Living Environment • Earth Science • Chemistry • Physics
Electives	• Astronomy & Meteorology • Creative Solutions • Through Science	• Astronomy & Meteorology • Creative Solutions • Through Science • Environmental Sci • Field Biology • General Chemistry • Human Body • Independent Study • Intro to Forensic Sci • Network Science Research • Science Research in the High School • Urban Ecology	• Advanced Field Biology • Astronomy & Meteorology • Creative Solutions • Through Science • Environmental Sci • Field Biology • General Chemistry • Human Body • Independent Study • Intro to Forensic Sci • Methods in Med Tech • Network Science Research • Network Science • Science Research in the • High School • Urban Ecology	• Advanced Field Biology • Astronomy & Meteorology • Creative Solutions • Through Science • Environmental Sci • Field Biology • General Chemistry • Human Body • Independent Study • Intro to Forensic Sci • Methods in Med Tech • Network Science Research • Network Science • Science Research in the • High School • Urban Ecology

Science Courses

Advanced Placement Biology (11, 12) - CRS 500 [Credit 1.0] [College Credit 8.0]

Advanced Placement Biology is a college course articulated with Mercy College or SUNY Orange. Course credit is given with a C average or better. The AP Biology curriculum is structured around four Big Ideas: Evolution, Energy Processes, Information and Interactions. These ideas encompass the core principles and theories of all living systems. The curriculum provides a basis for students to develop a strong conceptual understanding in biology and the opportunity to integrate that knowledge through inquiry-based activities and laboratory investigations. Students meet double period/single period/double period cycles every other day.

Prerequisites: Successful completion of Honors Biology and Regents Chemistry, and written permission of the instructor. Students should also have completed Physics or plan to take Physics concurrently. Excellent work habits and self-motivating behavior is a must.

Course Requirements: Completion of all prescribed laboratory work. The Advanced Placement examination is scheduled for mid-May, after which is the School/College level final exam for all students enrolled in the course.

Biology Honors (9,10) - CRS 502 [Credit 1.0]

Students will understand and apply scientific concepts, principles and theories relating to the physical setting and living environment and will recognize the historical development of ideas in science. A major goal of this course is for students to understand that we are interconnected with other life forms on this planet. Other major objectives are to understand why and how we are both alike and different from other living things; to understand the inner workings of various animals and humans; and to understand how plants and animals interact with their environment. Focus will also be on the student's ability to explain, analyze and interpret biological processes and phenomena. In addition, students will be introduced to the scientific writing process and be able to produce reports for laboratory investigations.

Topics include: Unity and Diversity Among Living Things, Adaptations and Survival of Living Things, Human Physiology, Reproduction and Development, Genetics, Ecology and Evolution.

Course Meets: Class meets every day with labs on alternating days.

Prerequisites: 1. Students must have successfully completed Regents Algebra I and should be enrolled in Geometry. (Some exceptions may apply) 2. Students must have successfully completed Regents Earth Science, or Physical Science (Grade 8) with a teacher/guidance counselor recommendation into the Honors program.

Course Requirements: 1. Students must successfully complete the NYS Regents laboratory requirement and demonstrate proficiency in all mandated skills. 2. Regents examination. 3. Maintain an 85 or above in the course.

Living Environment Regents (9, 10, 11, 12) - CRS 502 [Credit 1.0]

Students will understand and apply scientific concepts, principles and theories relating to the physical setting and living environment and will recognize the historical development of ideas in science. A major goal of this course is for students to understand that we are interconnected with other life forms on this planet. Other major objectives are to understand why and how we are both alike and different from other living things; to understand the inner workings of various animals and humans; and to understand how plants and animals interact with their environment. Focus will also be on the student's ability to explain, analyze and interpret biological processes and phenomena.

Topics include: Unity and Diversity Among Living Things, Adaptations and Survival of Living Things, Human Physiology, Reproduction and Development, Genetics, Ecology and Evolution.

Course Meets: Class meets every day with double-period labs on alternating days.

Prerequisites: Students must have completed Regents Algebra I, or plan to take it concurrently.

Course Requirements: Students must successfully complete the NYS Regents laboratory requirement and demonstrate proficiency in all mandated skills. Regents examination.

Methods in Medical Technology (11, 12) - CRS 507 [Credit 1.0]

North Campus - This course may be used as the 3rd unit of science to meet diploma requirements for a Regents Diploma. The course may not be used for Regents credit.

This course is the study of the principles and practice of clinical laboratory medicine, including approaching the patient, professional ethics, laboratory procedures, and the ECG technique. Use of technology to develop standard curves and determine clinical parameters like glucose and/or hemoglobin is studied. Students will prepare Levi-Jennings control charts, including determination of the mean, median, mode, standard deviation, and coefficient of variation configurations. Students will learn laboratory techniques in basic hematology using simulated human specimens, microbiology using non-pathogenic organisms, and immunology using simulated human specimens. Research in health care professions, interaction with guest speakers of healthcare professions and site visits to hospital departments are included. Correlated with lectures are readings and laboratory exercises to develop independent study. This is aligned with the Health Care Pathway at NFA North Campus. Students may be eligible for a certificate as a Medical Assistant.

Prerequisites: Successful completion of Regents Living Environment, Regents Chemistry, Regents Algebra I, all corresponding Regents exams, permission of the instructor.

Course Requirements: Completion of all prescribed laboratory work and rotation assignments in healthcare settings.

Advanced Placement Chemistry (11, 12) - CRS 510 [Credit 1.0] [College Credit 1.0]

Advanced placement college chemistry is the traditional first year college course in general and inorganic chemistry. This course revisits the topics covered in Regents Chemistry in greater depth, and with a more intensive mathematical treatment. The course prepares the student for higher level college chemistry and biochemistry courses. Upon successful completion of the course curriculum, students will have the option of taking the Advanced Placement Exam in Chemistry in May, the American Chemical Society International Chemistry Olympiad Exam in April, and/or apply for college credit through Mercy College.

Prerequisites: Students much have successfully completed Regents Living Environment, Regents or Honors Chemistry, Regents Algebra I, and Geometry with grades on the Regents Exams of at least 80%, or permission of the instructor. It is highly recommended, but not required, that students be concurrently enrolled in Pre-Calculus. This is a math intensive course and will require strong math skills for successful completion of the course.

Course requirements: Students must successfully complete the course laboratory component, and take a final exam in June in order to earn high school credit. Students must pass the AP Exam or meet Mercy College requirements to earn college credits.

Chemistry Advanced-Honors (10, 11, 12) - CRS511 [Credit 1.0]

Advanced Chemistry is designed to prepare the serious science student for AP and college science courses. This is a math-based science course that covers all the Regents Physical Setting - Chemistry topics, plus the advanced chemistry topics recommended by the College Board and the American Chemical Society. Students who successfully complete this course will be prepared to take the Regents exam, as well as the SAT II exam in chemistry.

Prerequisites: Students must have completed Regents Algebra I, Regents Living Environment, Regents Earth Science, and have taken or concurrently taking Regents Geometry. Recommended Regents exam scores are 80% or higher, or course grade over 90%. This is a math intensive course and will require strong math skills for successful completion of the course.

Course requirements: Students must successfully complete the NYS Regents laboratory requirement and turn in acceptable reports on their work; must complete quarterly projects, and it is strongly recommended that students sit for the June Regents Chemistry exam. Students are strongly encouraged to sit for the June SAT II exam in chemistry.

Chemistry Regents (10, 11, 12) - CRS 512 [Credit 1.0]

Topics include phases of matter, energy, atomic structure, the periodic table, bonding, mathematical concepts of chemistry, kinetics and equilibrium, acid-base theories, electrochemistry, thermochemistry, oxidation/reduction reactions, organic chemistry, and nuclear chemistry, in addition to laboratory activities. Students meet daily on an alternating single/double period schedule.

Prerequisites: Students must have completed Regents Algebra I, and concurrently enrolled in Regents Geometry. It is strongly recommended that students have scored a minimum of 75% on all Regents Science and Math Regents exams.

Course requirements: Students must successfully complete the NYS Regents laboratory requirement and turn in acceptable reports on their work.

General Chemistry (NR) (10,11, 12) – CRS 514 [Credit 1.0]

The objective of this course is to provide the student with a broad overview of chemistry that will be meaningful and useful in daily life, and in the decision making of an informed consumer and citizen. Although there is no designated lab period and lab hour requirement as in Regents Chemistry, students will participate in regular laboratory exercises and are expected to become proficient in basic lab skills. Topics are focused on areas of chemistry as they are applied to everyday life. Students meet five periods per week, which include both lecture and lab. Students may not use this course for Regents credit in science. This course is not open to students who have passed Regents Chemistry.

Prerequisites: Concurrent enrollment or successful completion of Regents Algebra I, Advanced Algebra or Pre-College Algebra. Students must have successfully completed Regents Living Environment. Students must also have successfully completed Regents Earth Science or Meteorology and Astronomy or be concurrently enrolled in either.

Course Requirements: School final examination.

APC Mechanics (11, 12) - CRS 520 **[Credit 0.5]**

Main Campus - The Advanced Placement Physics C course articulated with Mercy College forms the first part of the college sequence for students majoring in the physical sciences, computer sciences, engineering and pre-med. It includes an in-depth study of mechanics. The sequence is usually paralleled by mathematics courses that include calculus. Methods of calculus are taught and used whenever appropriate in formulating physical principles and in applying them to solve physics problems. The sequence is more intensive and analytic than the Advanced Placement Physics 1 course. Students meet double period/single period/double period on alternating days.

Prerequisites: Successful completion of Regents Geometry and Regents Algebra 2. Students are encouraged to complete Regents Living Environment, Regents Chemistry, and AP Physics 1 before electing the Advanced Placement C course in Physics. Concurrent registration in Calculus is strongly recommended. Written permission of the instructor is required.

Course Requirements: Successful completion of the lab requirement and demonstration of proficiency in all mandated skills as prescribed by the College Board. School final is the AP Physics C Examination. This is a math intensive course and will require strong math skills for successful completion of the course. This is a semester course that must be taken in sequence with APC Physics: Electricity and Magnetism, during the same school year.

Advanced Placement Physics 1 (11, 12) - CRS521
Credit 1.0

AP Physics 1 is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. The course encompasses core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about the physical world. This course requires that 25 percent of the instructional time will be spent in hands-on laboratory work, with an emphasis on inquiry-based investigations that provide students with opportunities to apply the science practices.

Prerequisites: Successful completion of Regents Geometry and Regents Algebra 2. Written permission of the instructor is required. Students are encouraged to complete Regents Living Environment and Regents Chemistry, before electing an Advanced Placement course. Meets double period/single period/double period on alternating days.

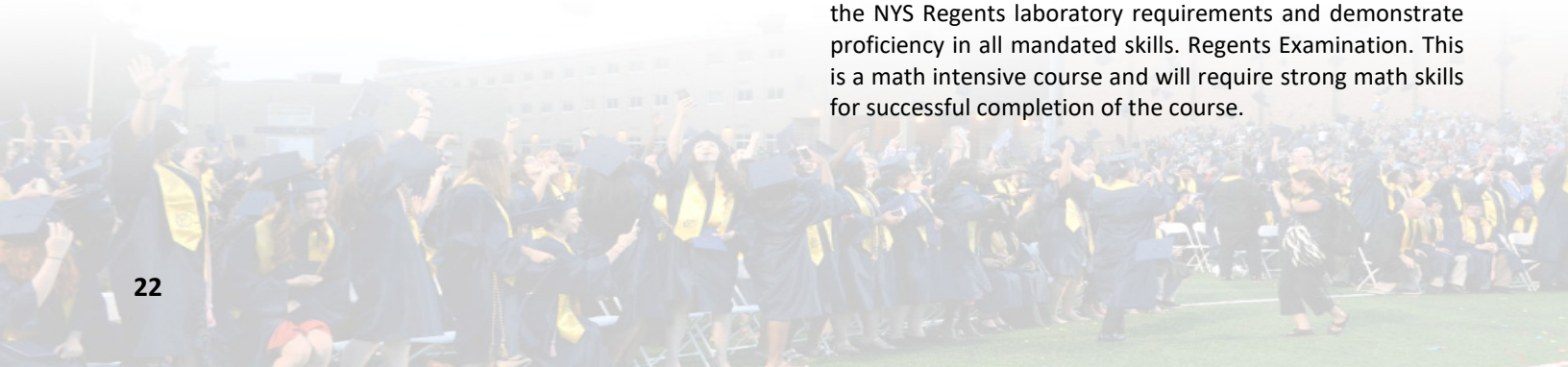
Course Requirements: Successful completion of the lab requirement, AP Physics 1 final examination, and demonstration of proficiency in all mandated skills as prescribed by the College Board. This is a math intensive course and will require strong math skills for successful completion of the course.

Physics Regents (10, 11, 12) - CRS 522 **[Credit 1.0]**

This course is a comprehensive survey of mechanics, heat, waves, optics, electricity, the atom, and the nucleus. Algebra is used extensively throughout the course and geometry and trigonometry are used less extensively. The objectives of the Regents physics course extend beyond the minimal comprehension of the basic facts and principles outlined by the New York State Regents Physics Syllabus. The appreciation of scientific method, the ability and willingness to change beliefs and opinions after careful weighing of new evidence, and the development of the habit of critical thinking are the intangible but most important outcomes of the study of this science. These objectives are met by: lecture/demonstration, directed and undirected inquiry laboratory investigations, computer simulation/tutorials and real time computer interfacing. Students meet double period/single period/double period on alternating days.

Prerequisites: Open to students who have successfully completed Regents Algebra I and Regents Geometry, or by permission of the instructor.

Course Requirements: Students must successfully complete the NYS Regents laboratory requirements and demonstrate proficiency in all mandated skills. Regents Examination. This is a math intensive course and will require strong math skills for successful completion of the course.



APC Electricity & Magnetism (11, 12) - CRS 529 [Credit 0.5]

Main Campus - The Advanced Placement Physics C course articulated with Mercy College forms the first part of the college sequence for students majoring in the physical sciences, computer sciences, engineering and pre-med. It includes an in-depth study of electricity and magnetism. The sequence is usually paralleled by mathematics courses that include calculus. Methods of calculus are taught and used whenever appropriate in formulating physical principles and in applying them to solve physics problems. The sequence is more intensive and analytic than the Advanced Placement Physics 1 course. Students meet double period/single period/double period on alternating days.

Prerequisites: Successful completion of Regents Geometry and Regents Algebra 2. Students are encouraged to complete Regents Living Environment, Regents Chemistry, and AP Physics 1 before electing the Advanced Placement C course in Physics. Concurrent registration in Calculus is strongly recommended. Written permission of the instructor is required.

Course Requirements: Successful completion of the lab requirement and demonstration of proficiency in all mandated skills as prescribed by the College Board. School final is the AP Physics C Examination. This is a math intensive course and will require strong math skills for successful completion of the course. This is a semester course that must be taken in sequence with APC Physics: Mechanics, during the same school year.

Earth Science Regents (9, 10, 11, 12) - CRS 532 [Credit 1.0]

This course is a laboratory-centered program involving small group interpretation of data using the scientific method. The areas of study include Geology, Meteorology, Climate Change and Astronomy. Students meet alternately single and double periods for the full school year.

Prerequisites: Passing of Junior High School science or Regents Living Environment. Successful completion of Regents Algebra I or Grade 8 Math.

Course Requirements: Students in this course must successfully complete the NYS Regents laboratory requirement of 1200 minutes of satisfactory lab reports in order to take the Regents exam. Failure to meet the NYS Lab requirement will result in being unable to sit for the Regents Earth Science exam (barred) and students will receive no credit for the course. The course ends in a Regents Examination and credit in this course can be counted toward the Regents diploma.

Earth Science Honors (9, 10, 11, 12) CRS 533 [Credit 1.0]

This course is a laboratory-centered program involving small group interpretation of data using the scientific method. The areas of study include Geology, Meteorology, Climate Change, Astronomy and Oceanography. Students meet alternately single and double periods for the full school year.

Prerequisites: 85% final average in Junior High School science course (Grade 8) OR Living Environment Honors course and corresponding NYS Regents exam. 85% final average in Grade 8 Math course OR Regents Algebra I course and corresponding NYS Regents exam.

Course Requirements: Students in this course must successfully complete the NYS Regents laboratory requirement of 1200 minutes of satisfactory lab reports in order to take the Regents exam. Failure to meet the NYS Lab requirement will result in being unable to sit for the Regents Earth Science exam (barred) and students will receive no credit for the course. The course ends in a Regents Examination and credit in this course can be counted toward the Regents diploma.

Astronomy & Meteorology (9, 10, 11, 12) - CRS527 [Credit 1.0]

Astronomy & Meteorology is a two-semester elective course in the Physical Setting for science that allows the successful student to earn one non-Regents science credit towards graduation. Astronomy & Meteorology students will study topics in Astronomy such as the Solar System, Planet Earth, Comets, Asteroids, Star Formation and Galaxies during the first semester. During the second semester, topics in Meteorology will cover Weather Systems, Climate and Energy Systems. The course is designed using a project-based curriculum that integrates computer technology and weather stations.

Prerequisites: Successful completion of Grade 8 Science.

Course Requirements: Students must successfully complete laboratory work, projects, homework assignments, tests, quizzes and an in class final exam in June.

Human Anatomy & Physiology (11, 12) - CRS 542 [Credit 1.0]

Human Anatomy and Physiology is an honors level course designed for both 11th and 12th grade students interested in learning more about the human body and/or may be interested in pursuing careers in the health sciences. The course is designed to introduce and expand the students' knowledge of the structure and function of the human body. This course will study basic biochemistry, cytology, histology, the maintenance of homeostasis, all body systems, and common diseases/disorders. An emphasis will be placed on the diagnosis, treatment, and the effects of various diseases on the human body using real life scenarios. An intense laboratory investigation program is built into the course allowing students to apply and exhibit their conceptual knowledge through hands-on applications. Double lab period on alternate days.

Prerequisites: Successful completion of Regents Living Environment and Regents Chemistry courses. Juniors and Seniors meeting these requirements are eligible for enrollment.

Course Requirements: Students must successfully complete all laboratory activities, chapter tests, case studies, and essays. Participation in class presentations and collaboration with peers is also required. A comprehensive final exam will be administered at the completion of the course.

Independent Study in Science Internship (10,11,12) CRS 554 [Credit 0.5]

Students may elect this course to become familiar with the basic skills of scientific inquiry. They will have an opportunity to complete either an empirical research study or a theoretical research study. The empirical research study is a study in which a student defines a problem; develops a research design to pursue the problem; creates, obtains and/or develops instrumentation; generates and analyzes data, and reaches conclusions. The theoretical research study is a study in which a student identifies a problem; undertakes an extensive search of the literature on the topic; does appropriate reading and study, and through creative thought and reasoning, develops his/her ideas and conclusions. Students will be encouraged and assisted in the writing and submission of entries for science competitions, such as the New York State Energy, Research and Development Program, the Siemens-Westinghouse Science Scholarship Program, the Junior Science and Humanities Symposium, etc. Students may also elect this course to do an internship at a business or industry science-related site. Students must complete a minimum of 60 hours at the site per semester. Students must maintain a daily written journal and someone at the site must agree to mentor the student while he/she is there. Students do not have to undertake both a research project and an internship. Successful completion of either the research or the internship will earn one-half unit of credit. Prerequisites: Students must have completed and passed at least two Regents science courses and the corresponding Regents exams. Written permission of the instructor and the Science Department Chair is required.

Course Requirements: Students are required to complete a written proposal of study at the beginning of the course, maintain a research notebook during the course, and submit an original, comprehensive research paper at the conclusion of the course.

Science Research in the High School (10, 11, 12) - CRS 5800 [Credit 1.0]

North Campus - This is a three-year course starting in the sophomore year in which students learn research methodology in the natural and social sciences. Students will access scientific databases, use on-line bibliographic search techniques, consult doctoral-level research scholars, develop hypotheses and perform experiments under the guidance of a scientist mentor, and write research papers. Seniors will also submit their research to national and regional science competitions. At the end of each year, all students will present their research at the NFA annual science symposium. Students may apply for college credit during a student's junior and senior years through SUNY Albany.

Prerequisites: Permission of the instructor after submission of application essay and subsequent summer assignment; successful completion of one-year approved science course. Advancement to the next year is contingent upon symposium presentation and successful completion of each year's goals.

Intro to Forensic Science (10, 11,12) - CRS 577 [Credit 1.0]

North Campus - Intro to Forensic Science is a full year high school level New York State standards-based course that allows the student to earn one non-regents science credit toward graduation. The course meets for five periods per week. Students participate in regular laboratory exercises and are expected to become proficient in basic lab skills applied to Forensic Science. Intro to Forensic Science challenges students with biochemical studies in forensic science. General chemistry topics are included and focus on areas of chemistry required for understanding Forensic Science techniques. Knowledge, understanding and skills acquired in this course prepare students for the Forensic Science College course.

Prerequisite: Successful completion of Regents Living Environment. Concurrent enrollment or successful completion of Common Core Algebra I.

Course Requirements: School final examination.

Forensic Science College (11, 12) - CRS 559 [Credit 1.0] [College Credit 3.0]

This course follows a College Level Syllabus and may be used as the 3rd unit of science to meet diploma requirements for a Regents Diploma. This course may not be used for Regents credit. It is a college-level course articulated with a local college/university. The course meets for five periods per week. Hands-on laboratory requirements are built into the time framework. Forensic Science is a study of the scientific techniques of crime scene analysis. Students will be exposed to actual cases involving the laboratory study of trace, pattern, conditional and transitional evidence. Students will be exposed to laws governing the admissibility of evidence by the court, searching for evidence by investigators, the accreditation and behaviors expected of expert witnesses. Topics will include, but are not limited to: Toxicology, Firearms and Ballistic, Arson, Serology, Physiology of Death, Hair, Fingerprinting and DNA Fingerprinting. Students will be expected to attend a field experience at a local Crime Lab and are expected to complete two assessment projects. Grade is based on the successful completion of the lab requirement and the school final examination.

Prerequisite: Successful completion of Regents Living Environment and either General Chemistry, Regents Chemistry, or AP/Honors Chemistry. Successful completion of Regents Algebra I and Geometry are also required. Written permission of the instructor; Senior Preference.

Field Biology (9,10,11, 12) - CRS 5520 [Credit 1.0]

Field Biology students examine Mid-Hudson Valley wildlife and their roles in the ecosystem. Through visits to different field locations and classroom examinations of living and preserved specimens, students identify plant and animal species that are both typical as well as unique to Newburgh. Students gain further familiarity with wildlife by data analysis, article readings and current events. Since a number of class periods are spent outdoors, students are required to participate in moderate hiking and climbing. Students are also required to maintain a field notebook. The course meets daily for five periods per week.

Prerequisites: Concurrent enrollment or successful completion of Regents Algebra I. Students must have successfully completed Regents Living Environment, Regents Earth Science or Astronomy and Meteorology or be concurrently enrolled in Regents Earth Science or Astronomy and Meteorology.

Course Requirements: Comprehensive final exam

Environmental Science (10,11, 12) - CRS 5510 [Credit 1.0]

Environmental Science is an ecology-based course where students study the natural environment, societal issues, and the effects of society's behavior on the environment. The goals of this course will be met through lecture, individual and group research, and hands-on activities in the form of mini-labs. Meets five periods per week and satisfies the requirement for the third science credit.

Prerequisites: Successful completion of Regents Living Environment with passing grade for the Living Environment Regents Exam. Regents Algebra I recommended.

Course Requirements: Comprehensive final exam.

AP Environmental Science (11, 12) - CRS 526 [Credit 1.0]

This course is articulated with Mercy College. College credit pending review by college. AP Environmental Science is a college course that surveys Earth Systems and resources, the Living World, Population, Land and Water Use, Energy Resource Consumption, Pollution and Global Change. Lectures from guest speakers, off site visits and research projects are part of this course design.

Prerequisites: Successful completion of Regents Living Environment, Regents Chemistry and Regents Algebra I Regents exams.

Course Requirements: Teacher recommendation and Two Saturday Black Rock forest field trips are required. Lab work and course assessments are to be completed.

Urban Ecology (10, 11, 12) - CRS 691 [Credit 1.0]

North Campus - Students will examine the city as an ecosystem. Principles of ecology will be reinforced as they compare city and rural ecosystems and study issues caused by a high population density of humans. Possible solutions will be explored as they take on the roles of environmentalists, city council members, scientists and engineers during research and project-based learning activities. Field trips within the city of Newburgh, to Black Rock, and to surrounding areas will help students study the use of resources and economic factors that are issues in the city environment. The lab component will include the use of GPS with GIS mapping, water testing, population sampling, energy usage, nutrient cycles, investigations into human/environmental interactions, uses of green technology, urban farming and sustainable city planning. The course culminates in the students planning their ideal city which incorporates the ideas learned throughout the year.

Prerequisite: Successful completion of Regents Earth Science or Regents Living Environment.

Course Requirements: Students must successfully complete laboratory and project work, homework assignments, tests, and a comprehensive Final Exam. Students need to be able to do moderate hiking and enjoy the outdoors.

Creative Solutions Through Science & Technology (9,10,11,12) - CRS 690 [Credit 1.0]

North Campus - Creative Solutions through Science & Technology provides an introduction to various components within the Science, Technology, Engineering, and Mathematics curriculum. Classes will focus on the integration of real world, project-based activities involving: hydroponics, composting and water filtration. Additional activities will include solar technologies, alternative energies, the building of: bridges, earthquake proof structures, solar vehicles, and robotic arms and hands. Students who successfully complete this course will earn 1.0 credit in Science, Math or Technology.

Network Science Research (10,11, 12) CRS 5801 [Credit 0.5]

Main Campus - This course is an interdisciplinary course, focused on the emerging science of complex network and their real-world applications. The material includes the mathematics of networks, their applications to biology, sociology, technology and other fields, and their use in the research of real complex systems in nature and in manmade systems. The students will learn about the ongoing research in the field, and apply their knowledge in the analysis of real network systems, as the main objective of their final research project.

Prerequisite: Successful completion of both Living Environment Course and Living Environment Regent Exam are required.

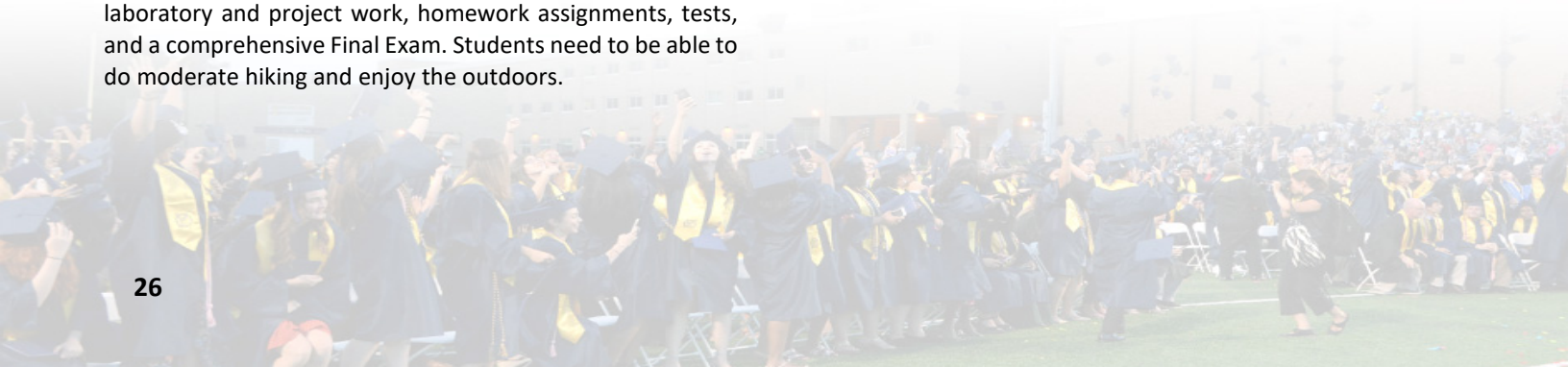
Course Requirements: Special permission is granted with instructor approval.

Network Science (11, 12) - CRS 5802 [Credit 0.5]

Main Campus - This course is an interdisciplinary course, focused on the emerging science of complex network and their real-world applications. The material includes the mathematics of networks, their applications to biology, sociology, technology and other fields, and their use in the research of real complex systems in nature and in manmade systems. The students will learn about the ongoing research in the field, and apply their knowledge in the analysis of real network systems, as the main objective of their final research project.

Prerequisite: Successful completion Network Science Research (5801)

Course Requirements: Special permission is granted with instructor approval.



Advanced Field Biology (11,12) - CRS 5521 [Credit 1.0]

Main Campus - This course is designed to familiarize students to topics and careers in field biology. Topics may include ecology, entomology, herpetology, botany, population biology, taxonomy, physiology, wildlife and fisheries biology, microbiology and others. Field biologist are employed by county, state, and federal agencies as wildlife biologists, fisheries biologists, entomologists, range managers, pollution control technicians, environmental health officers, environmental education specialists, toxicologists, soil scientists, naturalists, and many others. Many of these types of careers involve research and some may be involved in the regulation and enforcement of environmental laws.

Prerequisite: Successfully completed the Regents Living Environment course and Regent exam.

Course Requirements: Since a number of class periods are spent outdoors, students must be able to participate in moderate hiking and climbing. These activities will occur during mandatory full day field trips to Black Rock Forest Preserve to complete laboratory exercises in the field. 2 Overnight trips (all day Friday return Saturday noon)

Human Body (10, 11, 12) - CRS 504 [Credit 1.0]

Students will learn about the cells, tissues, and organs that make up the human body. They will learn to identify all of the parts of the human body and their functions. Knowledge about the human body will be applied to practical applications as seen in case studies, health articles, multimedia resources. Hands-on laboratory activities will provide an opportunity for students to visualize and understand the processes that occurring within their bodies allowing them to stay alive. Students will leave this course having gained an understanding of the structures and functions the human body, illness, and appropriate treatments which can be applied to their future health and medical well beings and experiences.

Prerequisite: Successful completion of both Living Environment Course and Living Environment Regent Exam are required.

Course Requirements: Students must successfully complete all laboratory activities, chapter tests, vocabulary quizzes, homework, and case studies. Participation in class presentations and collaboration with peers is also required. A comprehensive final exam will be administered at the completion of the course.

Social Studies

Level	Grade 9	Grade 10	Grade 11	Grade 12
Honors/College	• Global History & Geography I	• Global History & Geography II	• United States History & Government	• Economics/ Participation in Government
Regents	• Global History & Geography I • US History & Government	• Global History & Geography II	• United States History & Government	• Economics/ Participation in Government

Electives

Psychology
Introduction to Criminal Justice
Sociology
History of Sports
Beginning Debate
Advanced Debate I
Advanced Debate II
Advanced Debate III
Introduction to African American History
U.S. Government & Politics with Economics
Facing History Humanity
History of Newburgh
Facing History Civil Rights

Advanced Placement Courses

Macroeconomics with Government
Government & Politics: U.S.
Psychology
Macroeconomics
World History
U.S. History and Government

Social Studies Courses

Global History and Geography I Honors - CRS 191 [Credit 1.0]

The Global History and Geography core curriculum is a two-year program (Grades 9 and 10) based on the five practices of the New York State Social Studies Framework. It is designed around eight historical units and focuses on common themes that occur across place and time. The curriculum provides students with the opportunity to explore the developments of political systems around the world and to analyze the roles of significant individuals and groups during important periods of time and key turning points in global history. The Honors Course is a rigorous course that requires analysis and evaluation of historical documents. Honors classes generally incorporate more reading, writing and discussion and at a higher level; use more challenging instructional materials; and take more challenging assessments throughout the year.
Prerequisites: Successful completion of Grade 8 social studies and/or recommendation by the Grade 8 social studies teacher
Course Requirements: per course syllabus

Global History and Geography I Regents - CRS 192 [Credit 1.0]

The Global History and Geography core curriculum is a two-year program (Grades 9 and 10) based on the five practices of the New York State Social Studies Framework. It is designed around eight historical units and focuses on common themes that occur across place and time. This curriculum provides students with the opportunity to explore the development of political systems around the world and to analyze the roles of significant individuals and groups during important periods of time and key turning points in global history.
Prerequisites: None
Course Requirements: per course syllabus

AP World History - CRS 1383 [Credit 1.0]

A continuation of Global History and Geography I incorporating material from the various Social Studies disciplines in understanding themes and concepts. Significant emphasis is placed on investigating and explaining in-depth document-based questions in Global History. Designed for students demonstrating marked proficiency in Social Studies in regard to reading and writing skills, ability to think, analyze and discuss in the abstract and deal with complex concepts. Students should also possess a high level of Social Studies vocabulary and be able to work independently in the library. Students will study 6 in-depth themes with a chronological examination of the major movements, ideas, and events in World History. Students will complete simulations, give oral presentations, explore critical analysis of primary documents and conduct significant historical research. Thesis writing is emphasized. Students will take the Global History and Geography Regents, a final course evaluation and/or the AP Examination in May.
Prerequisites: Successful completion of Global History I with at least an 85 average and a recommendation from the Global History I teacher. Global History and Geography I Honors (9th Grade), Global History and Geography II Honors (10th Grade) AP U.S. History, or U.S. History Honors (11th Grade), Pre-AP Summer Assignment, and Departmental Approval
Course Requirements: per course syllabus

Global History and Geography II Honors - CRS101 [Credit 1.0]

A continuation of Global History and Geography I incorporating material from the various Social Studies disciplines in understanding themes and concepts. The course is based on the five practices of the New York State Social Studies Framework. Significant emphasis is placed on investigating and explaining in-depth document-based questions in Global History. Designed for students demonstrating marked proficiency in Social Studies in regard to reading and writing skills, ability to think, analyze and discuss in the abstract and deal with complex concepts. Students should also possess a high level of Social Studies vocabulary and be able to work independently in the library. The final evaluation is the Regents exam.
Prerequisites: Successful completion of Global History and Geography I with at least an 85 average and a recommendation from the Global History I teacher.
Course Requirements: per course syllabus

Global History and Geography II Regents - CRS 102 [Credit 1.0]

A continuation of Global History I incorporating learning from the various Social Studies disciplines in understanding various cultures and value systems. The course is based on the five practices of the New York State Social Studies Framework. Emphasis is placed on investigating cultural development and social change in Global History. Similar to Honors in requirements, with greater emphasis on the use of study aids. The Regents examination is the final evaluation.
Prerequisites: Successful completion of Global History and Geography I.
Course Requirements: per course syllabus

AP U.S. History - CRS 120 [Credit 1.0]

This is a full year college level course. The course will be divided into two semesters. The fall semester will cover Colonial History through the Civil War with a school evaluation in January. The spring semester will cover Reconstruction through the present with a research assignment in May, serving as the second semester evaluation. All students will take the June United States History & Government Regents as the final course evaluation. The course traces the development of American social, political, cultural and economic patterns, as well as the history and formulation of foreign policy. The course is designed for students demonstrating marked proficiency in Social Studies in regard to reading and writing skills and in the ability to think and discuss in the abstract when studying complex issues and concepts. Students take the Advanced Placement American History Exam in May.
Prerequisites: Successful completion of Global History Honors and/or recommendation made by 10th Grade History teacher.
Course Requirements: per course syllabus

United States History & Government Honors – CRS 121 [Credit 1.0]

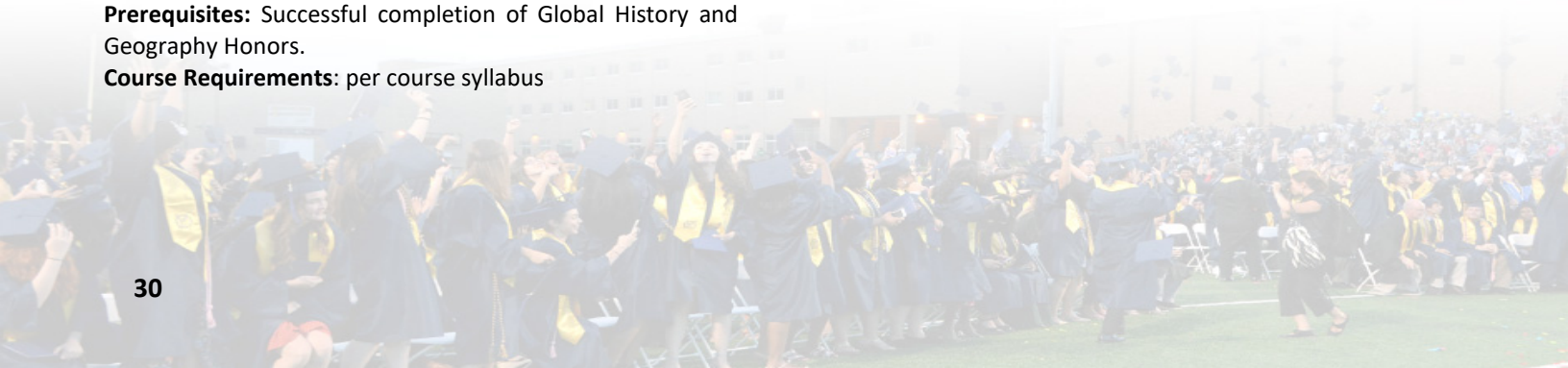
This is a full year Honors level course which traces the development of American social, political, cultural and economic patterns, as well as, the history and formulation of foreign policy. Just like the New York State Core Curriculum, this course is designed to help the student focus on the key facts, themes, and concepts tested on the Regents Examination. This course will meet both the New York State learning standards, as well as, the national Standards for Social Studies. The course is based on the five practices of the New York State Social Studies Framework.
Prerequisites: Successful completion of Global History and Geography Honors.
Course Requirements: per course syllabus

United States History & Government Regents - CRS 112 [Credit 1.0]

This is a course in the history of the United States. The course is based on the five practices of the New York State Social Studies Framework. The course will include a chronological survey of United States history in general, but the emphasis will be on the United States as a developing and as a fully developed industrial nation. Constitutional and legal issues will be explored in depth, as well as the problems of a dynamic and industrial society in an increasingly complex and technologically-oriented world. The Regents Examination is the final evaluation.
Prerequisites: Successful completion of Global History.
Course Requirements: per course syllabus

AP Macroeconomics - CRS 137 [Credit 0.5]

This is a semester, college level course consistent with a school final exam. This course examines the basic concepts and principles of economics, the major elements of economic systems and the roles of various components of those systems, including consumer, business, labor, agriculture and government. The major focus is on the economy of the United States, but attention will be given to the world economy as a whole and to other economic systems. There will be an emphasis on economic decision-making at all levels throughout the course. Designed for students demonstrating marked proficiency in Social Studies in regard to reading and writing skills, ability to think and discuss in the abstract when studying complex issues and concepts. Students take the Advanced Placement exam in May.
Prerequisites: Successful completion of U. S. History & Government - College and/or Participation in Government - College.
Course Requirements: per course syllabus



AP Macroeconomics with Government - CRS 1380 [Credit 1.0]

The AP Macroeconomics course provides students with a thorough understanding of the principles of economics and how economists use those principles to examine aggregate economic behavior. Students learn how the measures of economic performance, such as gross domestic product (GDP), inflation, and unemployment are constructed and how to apply them to evaluate the macroeconomic conditions of an economy. The course recognizes the global nature of economics and provides ample opportunities to examine the impact of international trade and finance on national economies. Various economic schools of thought are introduced as students consider solutions to economic problems. Students will study fiscal and monetary policies and international trade/finance. As part of the government section of this course, students will learn about the principles of American government political beliefs and behaviors, political parties and interest groups, institutions and policy processes of national government civil rights and civil liberties. At the conclusion of this course, students may be granted college credit or placement for this course based upon their performance in the nationally administered exam, which is required of all students. Students take the Advanced Placement exam in May.

Prerequisites: Successful completion of U. S. History & Government with an 85% or better on the Regents.

Course Requirements: per course syllabus

Economics - CRS 138 [Credit 0.5]

This course deals with the basic concepts and principles of economics, the major elements of economic systems and the roles of various components of those systems, including the consumer, business, labor, agriculture and government. The major focus is on the economy of the United States, but attention will be given to the world economy as a whole and to other economic systems. There will be an emphasis on economic decision-making at all levels throughout the course. The course is based on the five practices of the New York State Social Studies Framework.

Prerequisites: Completion of the required Social Studies courses.

Course Requirements: per course syllabus

AP Government and Politics: U.S. - RS 140 [Credit 0.5]

This is a single semester, college level course. The course will emphasize the interaction between citizens and government at all levels, and is designed to give students a critical perspective on politics and government in the United States. The course involves both the study of general concepts used to interpret American politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that make up the American political reality. Topics include: constitutional underpinnings of American government; political beliefs and behaviors; political parties and interest groups; institutions and policy processes of national government; and civil rights and liberties. Designed for students demonstrating marked proficiency in Social Studies in regard to reading and writing skills and an ability to think and discuss in the abstract when studying complex issues and concepts. Students take the Advanced Placement exam in May.

Prerequisites: Successful completion of United States History & Government - College and/or Economics
–College.

Course Requirements: per course syllabus

AP U.S. Government & Politics with Economics - CRS 1382 [Credit 1.0]

This full year course combines the one-semester course in Economics with a one semester course in Advanced Placement American Government & Politics. This college-level course is designed to give students a critical perspective on government and politics in the United States. It involves both the study of general concepts used to interpret American politics and the analysis of specific case studies and current events. Students will study constitutional underpinnings of American Government, political beliefs and behaviors, political parties and interest groups, institutions and policy processes of national government, civil rights and civil liberties. As part of the economics component, students will study basic economic problems facing consumers in America. This includes consumer issues and economic literacy, economic decision making for individuals and businesses, long term investment and the history of economic policy and impacts (individual, local, state, nation, world). Students will study themes and concepts critical analysis. Significant research and thesis writing emphasized. Students may be granted college credit or placement for this course based upon their performance in the nationally administered exam, which is required of all students. Students take the Advanced Placement exam in May.

Prerequisites: American History 85% or better on the U.S. History & Government Regents & Departmental Approval.

Course Requirements: per course syllabus

Participation in Government Honors: Current Topics – CRS 122 [Credit 0.5]

This course of study will focus on current social, political and economic issues that are both foreign and domestic concerns and interests of American citizens today. This honors level program meets the New York State Department of Education's commencement level standards for Grade 12 Participation in Government. The course is based on the five practices of the New York State Social Studies Framework. Students are required to research the historic background, identify essential questions leading to controversy or concern, then lead fellow classmates through thought provoking dialogue regarding their well formulated and informed position on the issues. Students will present their findings and position in several genres including position papers, speeches, debates, editorials, powerpoint or video presentations. A final cumulative examination will consist of several essay responses to essential questions developed from the current issues discussed in the semester. Students taking this course will also complete ten hours of community service.

Prerequisites: Students must be in the 12th grade. Students should have successfully passed Global History and Geography, United States History & Government and passed the ELA Regents.

Course Requirements: per course syllabus

Participation in Government Regents - CRS 141 [Credit 0.5]

A required core subject that will emphasize the interaction between citizens and government at all levels: local, state and federal. The course will encourage students to understand and participate in the democratic process. Students taking this course will also complete ten hours of community service. The course is based on the five practices of the New York State Social Studies Framework.

Prerequisites: Completion of the required Social Studies courses.

Course Requirements: per course syllabus

AP Psychology - CRS 148 [Credit 0.5]

This is a college level course which traces the emergence of scientific psychology in the nineteenth century from its roots in philosophy and physiology and covers the development of the major "schools" of psychology. The historical introduction helps students gain an understanding of the principal twentieth century approaches to psychology: behavioral, biological, cognitive, humanistic, and psychodynamic. Students will learn how these approaches differentially guide research and practice in psychology. Additionally, the scientific nature of psychology is made clear through coverage of the methods psychologists use to answer behavioral to psychodynamic questions. Students take the Advanced Placement exam in May.

Prerequisites: Seniors only carrying an 85 or better average in both Global Studies and U.S. History. Course Requirements: per course syllabus

Psychology - CRS 130 [Credit 0.5]

This course will acquaint students with the fundamental areas of psychology such as the biological and sociological bases of behavior, personality and social development, motivation, learning perception, memory and thinking and cognitive development. The primary goal of the course is to provide students with an understanding of the scientific basis of psychology in order to increase their awareness of how this knowledge can be applied to understanding their own everyday environment.

Prerequisites: Completion of the required Social Studies courses.

Course Requirements: per course syllabus

Sociology - CRS 131 [Credit 0.5]

This course is designed to teach principles and concepts of sociology. While the substantive emphasis of the course is on American Society, attention is also given to the study of human societies in general, comparative analysis with other countries and issues related to the development of worldwide social systems. In addition, the major topics are: culture, interaction and social structure, deviance and control, stratification and power, ethnic relations, and social institutions.

Prerequisites: Completion of the required Social Studies courses. Although not required, it is recommended this course be taken concurrently or after the student has taken Psychology.

Course Requirements: per course syllabus

Beginning Debate - CRS 125 **[Credit 1.0]**

Main Campus - Debate is formal argumentation. Students enrolled in Beginning Debate will develop the skills necessary to compete nationally in interscholastic debate. While it is not necessary to join the Debate Team in order to take a debate class, it is strongly encouraged. All students can benefit from the skills of debate: public speaking, critical thinking, researching, organizing, writing, reading and listening. Students will debate a range of topics, including, but not limited to, the issues being debated nationally in both Policy and Lincoln-Douglas debate

Prerequisites: None

Advanced Debate I - CRS 126 **[Credit 1.0]**

Main Campus - This course is a continuation of Beginning Debate. Students will extend their development of the skills of debate: public speaking, critical thinking, researching, organizing, writing, reading and listening. Students will work collaboratively to develop arguments and improve their own abilities.

Prerequisites: Beginning Debate.

Advanced Debate II - CRS 143 **[Credit 1.0]**

Main Campus - This course is a continuation of Advanced Debate I. Students will extend their development of the skills of debate: public speaking, critical thinking, researching, organizing, writing, reading and listening. Since the debate classes are often taught with various levels in the same classroom at the same time, students in Advanced Debate II are expected to assume leadership responsibility and to model necessary skills for less experienced students, in addition to advancing their own understanding of the topics discussed, and of debate theory.

Prerequisites: Beginning Debate, Advanced Debate I.

Advanced Debate III - CRS 145 **[Credit 1.0]**

Main Campus - This course is a continuation of Advanced Debate II. Students will extend their development of the skills of debate: public speaking, critical thinking, researching, organizing, writing, reading and listening. Since the debate classes are often taught with various levels in the same classroom at the same time, students in Advanced Debate III are expected to assume leadership responsibility and to model necessary skills for less experienced students, in addition to advancing their own understanding of the topics discussed, and of debate theory.

Prerequisites: Beginning Debate, Advanced Debate I, Advanced Debate II

Facing History and Ourselves: Crimes of Humanity **[Credit 0.5]**

The Crimes of Humanity course is an examination of racism, prejudice and anti-Semitism in order to promote the development of a more humans and informed citizenry. By studying examples of genocide students make the essential connection between history and the moral choices they confront in their own lives.

History of Newburgh **[Credits 0.5]**

This course will explore the history of the City of Newburgh and the Town of Newburgh. The city and surrounding towns have long been considered as a reflection of America. The amendment considerations during police investigations, arrest in pre-trial procedures and while moving through the justice system.

Prerequisite: Successful completion of 1 Social Studies Course.

Introduction to African American History - CRS 110 **[Credit 0.5]**

Students will read a variety of informational text and literature during the semester including primary and secondary sources (books, encyclopedias, Internet access). Topics to be covered in the course include: an overview of ancient African empires, slavery in the Colonies and the Nation, the Civil War and Reconstruction, the impact of industrialization and urbanization on African Americans, the Harlem Renaissance, the Great Depression and World Wars I and II, the Civil Rights Movement and beyond, the contributions of African Americans to American society (including Obama's presidency).

Prerequisites: Completion of the required Social Studies courses.

Course Requirements: per course syllabus.

Facing History and Ourselves: Civil Rights **[Credit 0.5]**

This course is an examination of civil rights in the United States. Students will explore key turning points in American History and how these historical events have shaped American Culture. Students will explore the complexities of history and make connections to current events, reflect on the choices they confront today and consider how they can make a difference.

Health Education Courses

Health - CRS 921 **[Credits 0.5]**

Both Campuses - The Health course is founded on the principle of "wellness" and constructed to allow all students to make positive healthful decisions throughout their lives. The course consists of personality development, introduction course will explore its social and economic history over the past three centuries.

History of Sports **[Credits 0.5]**

Students will have the opportunity to examine the development throughout history. The course will concentrate on how sports have grown to play such a large role in the political, economic and social aspects of our everyday lives.

Introduction to Criminal Justice **[Credits 0.5]**

Introduction to Criminal Justice is the study of agencies and processes involved in the criminal justice system, including the legislature, the courts and corrections and analysis of the roles and problems of the system in a democratic society with an emphasis on 4th, 5th and 6th psychology, conflicts, problem solving and decision making. The prevention as well as the physiological and psychological effects of mental illness, smoking, alcohol, drug abuse, and sexually transmitted diseases is all part of Health education. Finally, the topics of nutrition and how diet affects health, physical fitness are covered as well as a review of standard first aid.

Prerequisites: The 1970 Mandate from the Commissioner of Education requires health education as a constant for all pupils. This half credit health course is required for all students.

Music

Level	Grade 9	Grade 10	Grade 11	Grade 12
Musical Knowledge & Skill Development	*/**Music Theory **Explorations in Music **Rock History ** Beginning Piano **Intermediate Piano ** Guitar		*/**Music Theory * Harmony ** Intermediate Piano	
Major Performance Groups	** Orchestra ** Band ** Chorus * A Cappella * Boys Glee * Chaminade		* Orchestra * Band * Chorus * Wind Ensemble * A Cappella * Boys Glee *Chaminade	
Ensembles	Jazz Ensemble Keyboard Ensemble Percussion Ensemble		Jazz Ensemble Keyboard Ensemble Percussion Ensemble Madrigals	

These courses are recommended for students considering music as their major in college study, in addition to performing groups.

** These courses are provided to meet the New York State Regents Mandate for one unit of Art and/or Music for graduation. Ensembles may be taken for local credit only

Music Courses

Music Theory - CRS 801 **[Credit 1]**

Designed for students with previous music experience who are interested in developing songwriting skills. Explores traditional, electronic and progressive methods for composing.

Prerequisite: Participation in a performing group or permission of the instructor.

Grades: 9 – 12

Course meets the NYS Regents mandate of one credit in the Arts.

Harmony - CRS 802 **[Credit 1]**

Designed as a continuation of the skills gained in Music Theory with an emphasis on the study of figured bass. Develops creative music writing through the use of traditional and electronic instruments

Prerequisite: Successful completion of Music Theory or instructor permission.

Grades: 10-12

Arts credit applicable to a sequence of music study.

Explorations in Music - CRS 810 **[Credit 0.5]**

Develops students' understanding of music as it relates to itself and human culture. Offers students opportunity to work individually and in groups to complete projects tailed to their abilities.

Prerequisite: None

Grades: 9-12

Main Campus Partial fulfillment of requirements for the NYS Regents Mandate for graduation.

Rock History - CRS 811 **[Credit 0.5]**

Offers a survey of the music, musicians, and historic events that contributed to the development of American Popular Music since the 1840's.

Prerequisite: None

Grades: 9 – 12.

Partial fulfillment of requirements for the NYS Regents Mandate for graduation.

Beginning Piano - CRS 813 **[Credit 0.5]**

Fundamentals of playing keyboard instruments, reading music, chord construction, and simple improvisation will be presented. Some creative experiences with electronic music devices will be included.

Prerequisite: No previous musical experience is needed. However, students should have a keyboard instrument available at home for individual practice.

Grades: 9 – 12

Partial fulfillment of requirements for the NYS Regents Mandate for graduation.

Both Campuses

Intermediate Piano - CRS 850 **[Credit 0.5]**

Continuation of the contents of "Beginning Piano" Emphasis on ensemble playing and keyboard/computer technology, and solo literature

Prerequisite: Successful completion of "Beginning Piano" or permission of the instructor. Students should have a keyboard instrument available at home for individual practice.

Arts credit partial fulfillment of requirements for the NYS Regents Mandate of one credit of Art and/or Music for graduation.

Guitar - CRS 814 **[Credit 0.5]**

Fundamentals of reading music, chord construction, and familiar chord rhythmic accompaniments, various strumming techniques, and blues improvisation will be included

Prerequisites: No previous music experience is needed. However, the student must have a guitar for individual practice.

Grades: 9 – 12

Partial fulfillment of requirements for the NYS Regents Mandate for graduation.

Orchestra - CRS 820 **[Credit 1]**

Continuation of individual skill development needed to perform orchestral music of all periods Opportunities for solos and smaller ensemble performance are provided at the local and state levels. Performance at concerts/events and attendance at weekly lesson groups (CRS 898) is basic to meeting this criteria.

Prerequisites: Previous orchestral experience and an individual audition with the instrumental director to demonstrate performance skill levels.

Grades: 9-12

Course meets the NYS Regents mandate of one credit in the Arts.

Both Campuses.

Concert Band - CRS 825 **[Credit 1]**

Continuation of individual skill development needed to perform band music of all periods Opportunities for solo and smaller ensemble performance are provided at the local and state levels. Performance at concerts/events including home football games and attendance at weekly lesson groups (CRS 898) is basic to meeting these criteria.

Prerequisites: Previous band ensemble experience and an individual audition with the band director to demonstrate performance skill levels.

Grades: 9-12

Course meets the NYS Regents mandate of one credit in the Arts.

Both Campuses

Wind Ensemble - CRS 827 [Credit 1]

Continuation of individual skill development in band performance at a superior level. Select ensemble will perform Level 5 and Level 6 music as found in the current NYSSMA Manual. Opportunity for performing more difficult literature Performance at concerts/events, home football games and attendance at weekly lesson groups is basic to meeting this criteria.

Prerequisites: Previous band experience in which the student has demonstrated superior achievement at a NYSSMA solo and ensemble festivals. An audition will be required for admission into this select ensemble.

Grades: 10-12

Course meets the NYS Regents mandate of one credit in the Arts.

Main Campus:

Instrumental/Vocal Lesson - CRS 898

This weekly scheduled lesson with the ensemble director is to support students' skill development and participation within the performance ensemble. A rotating schedule is developed and distributed at the beginning of each year.

Prerequisites: Enrollment within a major performing ensemble.

Grades: 9 – 12

Credit earned via ensemble enrollment.

Both Campuses

A Cappella Chorus - CRS 830 [Credit 0.5]

Voice production techniques and music reading skill development. Opportunities for solo and smaller ensemble performance will be provided at the local and state levels. Performance at concerts/events and attendance at weekly lesson groups is basic to meeting this criteria.

Prerequisites: Previous choral experience and individual audition with the choral director to demonstrate vocal skills and music reading ability.

Grades: 9 - 1.5 Arts credit partial fulfillment of requirements for the NYS Regents Mandate of one credit of Art and/or Music for graduation.

Main Campus

Chaminade Girls Chorus - CRS 832 [Credit 0.5]

Voice production techniques and music reading skill development through representative SSA choral literature. Special emphasis on ensemble blend and balance with opportunities for small group performance. Performance at concerts/events and attendance at weekly lesson groups is basic to meeting this criteria.

Prerequisites: Individual audition with the choral director to classify voice.

Grades: 9-12.5

Arts credit partial fulfillment of requirements for the NYS Regents Mandate of one credit of Art and/or Music for graduation.

Main Campus

Chorus - CRS 836 [Credit 1]

Individual skill development to perform choral music of all periods. Opportunities for solo and smaller ensemble performance are provided at the local and state levels. Performance at concerts/events and attendance at weekly lesson groups (CRS 898) is basic to meeting this criteria.

Prerequisites: Individual audition with the choral director to demonstrate performance skill levels.

Grades: 9-12.

Course meets the NYS Regents mandate of one credit in the Arts (music, art, dance or drama).

North Campus

Robert D. Williams Boys Glee – CRS 834 [Credit 0.5]

Prerequisites: Individual audition with the choral director for voice classification.

Grades: 9-12

.5 Arts credit partial fulfillment of requirements for the NYS Regents Mandate of one credit of Art and/or Music for graduation.

Main Campus

Performing Arts Courses

Performing Arts Lab (PAL) - CRS 805 [Credit 1]

Units exploring the utilization of music, dance, theater, stagecraft and music technology within the performing arts. There will be a final project utilizing all aspects of the Performing Arts Lab.
Main Campus

Technical Theatre - CRS 815 [Credit 1]

Introduction to the art of Stagecraft. Skill development, job exploration, and production experience, will provide students with experience in the behind-the-scenes world of the theatre. Units include basics of stage safety, theatrical design, construction, roles and responsibilities of set, lighting, sound, costume designers and practitioners. Students will make connections between the performing arts, academics, and the culture of their community through cross-curricular instruction and practical application. Instruction supported by guest artists and field experience. Students will utilize and apply the content acquired in class in at least one performance.
Prerequisite - PAL CRS 805 or permission of instructor.
Grades: 10 - 12

Modern Dance I - CRS 819 [Credit 1]

Detailed work in technique, choreography, and performance. Develop the skills necessary for basic through intermediate levels of dance.
Prerequisites: Successful completion of Creative Movement or instructor permission.
Grades: 10-12.
1 Arts elective credit (Course also available under PE Department Course# 9819)
Main Campus

Modern Dance II - CRS 851 [Credit 1]

Build on skills learned in Modern Dance 1. Develop skills for intermediate through advanced levels of dance.
Arts elective credit (Course also available under PE Department Course# 9851)
Prerequisites: Successful completion of Modern Dance I or instructor permission.
Grades: 11-12
Main Campus

Advanced Dance - CRS 855 [Credit 1]

Dance technique and performance with advanced dance training. Audition is required to enroll in this course. Concentrate on a variety of dance styles, jazz, ballet, modern and other.
Prerequisites: Auditioned group.
Grades: 11-12 (Course also available under PE Department Course# 9855)
Main Campus

Creative Movement - CRS 853 [Credit 0.5]

Students of all dance levels to improve technique, choreography, and performance skills. Participation in dance technique classes and successful completion of required choreography/performance assignments
Prerequisite: None
Grades: 9-12
.5 Arts elective credit (Course also available under PE Department Course# 9853)
Main Campus

Acting I - CRS 808 [Credit 0.5]

Introduction to and practice of appropriate behavior for an actor in rehearsal and performance. Basic acting course is designed for students to take the first steps toward acting on a serious basis. Exercises, improvisations and scenes encountered by the beginning actor
Prerequisites: None
Grades: 9 – 12
Main Campus

Acting II - CRS 817 [Credit 0.5]

Advanced acting and beginning directing and playwriting experiences. Exercises in concentration, sense and emotional memory will require that only the most serious actors take this course
Prerequisites: Successful completion of Acting I or instructor permission.
Grades: 10 – 12.
Main Campus

Acting III - CRS 856 [Credit 0.5]

Actors move to the most advanced level of acting Preparation for college and professional auditions.
Prerequisites: Acting II
Grades: 11-12.
Main Campus

Jazz Ensemble - CRS 840 [Credit 0.5]

Prerequisites: Individual audition and membership in a related major performing organization. (Courses 820, 825, 827, 830, 832, 834)
Grades: 9-12
This credit does not meet the course requirements towards the NYS Regents Mandate of one unit of Art and/or Music instruction needed for graduation due to the extra-curricular nature of each group and limited scope of the content presented.
Performance at all concerts/events scheduled for the ensemble, in addition to class participation expectations.

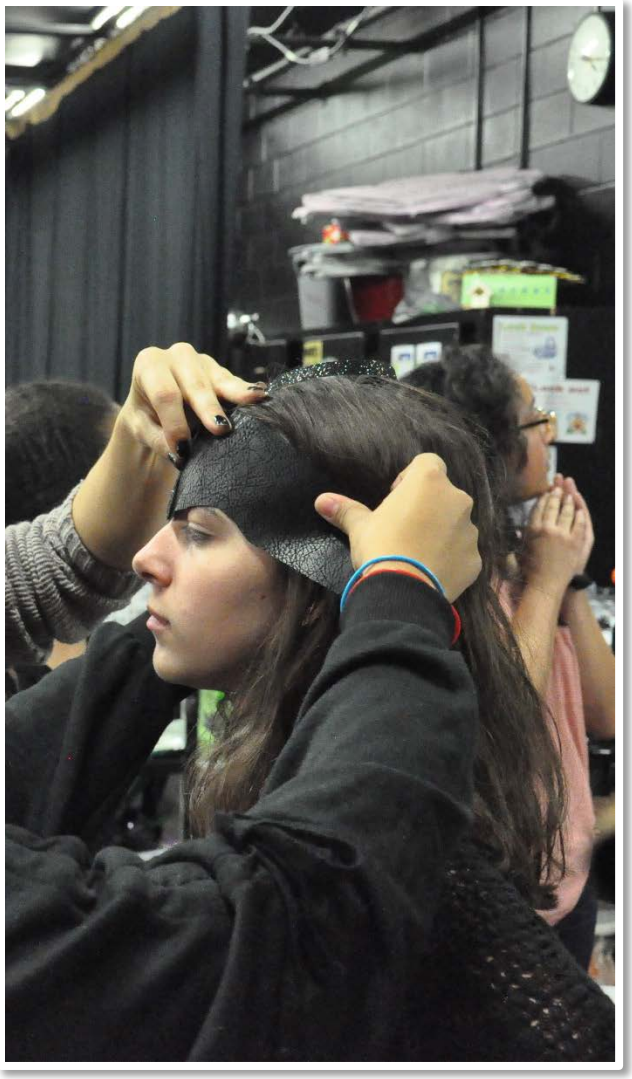
Madrigal Singers - CRS 841 [Credit 1]

Prerequisites: Individual audition with the instructor and membership in a related major performing organization. (Courses 820, 825, 827, 830, 832, 834)
Grades: 11-12 1 credit - local credit towards graduation. This credit does not meet the course requirements towards the NYS Regents Mandate of one unit of Art and/or Music instruction needed for graduation due to the extra-curricular nature of each group and limited scope of the content presented.

Performance at all concerts/events scheduled for the ensemble, in addition to class participation expectations

Electronic Keyboard Ensemble - CRS 824 [Credit 0.5]

Prerequisites: Individual audition and membership in a related major performing organization. (Courses 820, 825, 827, 830, 832, 834)
Grades: 9-12
.5 credit - local credit towards graduation. This credit does not meet the course requirements towards the NYS Regents Mandate of one unit of Art and/or Music instruction needed for graduation due to the extra-curricular nature of each group and limited scope of the content presented. Performance at all concerts/events scheduled for the ensemble, in addition to class participation expectations.



Physical Education Courses

Team Sport - CRS 9050B (Boys) 9050G (Girls) [Credit .25]
Develop intermediate to advanced skill level in individual/team sport and fitness, Football, Volleyball, Basketball, Cross Country/Track & Field, Lacrosse, etc. First Aid, CPR Training

Individual Sport, Wellness, & Recreation - CRS 9051 (Coed) [Credit .25]
Develop intermediate to advanced skill level in individual/team sport and fitness. Walking, Ping Pong, Badminton, Cooperative Games, outdoors games. Etc. Basic First Aid, CPR Training. Community/School Service Project.
Prerequisite: None

Lifetime Fitness - CRS 9052B (Boys) CRS 9052G (Girls) [Credit .5]
Become familiar with the latest trends in life-long fitness activities. Circuit Fitness, Bootcamp, Yoga, Pilates, Weight Training, Track Activities, Aerobics, Interval Training, P90X, Insanity.
Prerequisite: None

Elite Fitness - CRS 9053B (Boys) 9053G (Girls) [Credit .25]
Sport specific training geared towards increasing individual performance in sport. Weight Training, Cross Training, TRX, Cross Fit, Plyometric, Cardio Interval Training, Speed & Agility, Diet and Nutrition, Personal Fitness Assessments.
Prerequisite: Must be a member of a school team or successful completion of Lifetime Fitness

Aquatics - CRS 903 (Coed) 903B (Boys) 903G (Girls) [Credit .25]
Introduce and review basic swimming and survival skill. Treading, Front, back, breast, finning, butter flying, Aquatic Games, Interval Training, Distance Swimming, Individual Workouts.
Prerequisite: None.

Lifeguard Training (Coed) - CRS 9055 [Credit .25]
Earn ARC Lifeguarding certification course. Recognizing hazardous situation and prevention of injury. Response to aquatic emergencies and rescue skills.
Prerequisite: Must be able to pass basic swim test

World Languages Courses

Italian I - CRS 230 **[Credit. 1.0]**

In the first year of study, a basic understanding of the target language is developed. Students learn to talk about themselves, their home and community, school, sports, weather, and time. Reading and writing as well as basic structure of the language are learned early in the first year of study. Readings and conversations also center on the lives and customs of the people living in countries that speak Italian.

Prerequisites: None.

Course Requirements: satisfactory notebook, culture project, school examination

Italian 2 - CRS 231 **[Credit 1.0]**

In the second year of study, listening, speaking, reading and writing skills acquired the previous year are improved and expanded. Reading, guided composition and a study of basic structure are used to further develop the student's understanding and use of Italian. Language activities in the second year center on geography, travel, social customs and historical concepts unique to the countries that speak Italian.

Prerequisites: Successful completion of the first year of study and Checkpoint A Exam.

Course Requirements: satisfactory notebook, culture project, school examination

Italian 3 - CRS 232 **[Credit 1.0]**

In the third year, many areas of interest are explored through readings and practice with Italian. New vocabulary and additional grammatical structures are learned in order to broaden the ability of students to express themselves in Italian. Some modern writers are introduced at this level.

Prerequisites: Successful completion of the second year of study.

Course Requirements: satisfactory notebook, two culture projects, Regents examination

AP Italian Language and Culture - CRS 233 **[Credit 1.0]**

This course includes advanced grammar with special attention to problems of idiomatic expressions and literary style, themes, oral presentations, and translation, a constructive analysis of the phonology, morphology, and syntax of English and Italian; a survey of the main literary currents and major writers of each century, e.g. Dante, Petrarca, Boccaccio, da Vinci, Columbo, Vespucci, Mochiavelli, Michelangelo, Costiglions, Cellini, Galilei, Goldoni, Mestastasio, Manzoni, Garibaldi, Verdi, Verga, Pirandello, Marconi, Calvinol. There is an option of applying for 3 college credits from SUNY Albany.

Prerequisites: Successful completion of Checkpoint B Exam. A cumulative average of 85% or above in both the course work and the examination is recommended.

Course Requirements: satisfactory notebook, research paper, school examination

Italian 5 - CRS 234 **[Credit 1.0]**

This is a continuation of AP Italian Language and Culture, including in-depth studies of literary works introduced in AP Italian Language and Culture. There is an option of applying for 3 college credits from SUNY Albany.

Prerequisites: Successful completion of AP Italian Language and Culture. Course Requirements: satisfactory notebook, research paper, school examination

Spanish 1 - CRS 240 **[Credit 1.0]**

In the first year of study, a basic understanding of the target language is developed. Students learn to talk about themselves, their home and community, school, sports, weather, and shopping in both the present and past tense. Reading and writing as well as basic structure of the language are learned early in the first year of study. Readings and conversations also center on the lives and customs of the people living in countries that speak Spanish. Prerequisites: None

Course Requirements: satisfactory notebook, culture project, district-wide school examination

Spanish 2 - CRS 241 **[Credit 1.0]**

In the second year of study, listening, speaking, reading and writing skills acquired the previous year are improved and expanded. Reading, guided composition and a study of basic structure are used to further develop the student's understanding and use of Spanish. Language activities in the second-year center on geography, travel, social customs and historical concepts unique to the countries that speak Spanish.

Prerequisites: Successful completion of the first year of study and Checkpoint A Exam.

Course Requirements: satisfactory notebook, culture project, district-wide school examination

Spanish 3 - CRS 243 **[Credit 1.0]**

In the third year, many areas of interest are explored through readings and practice with Spanish. New vocabulary and additional grammatical structures are learned in order to broaden the ability of students to express themselves in Spanish. Some modern writers are introduced at this level.

Prerequisites: Successful completion of the second year of study.

Course Requirements: satisfactory notebook, two culture projects, Regents examination

Spanish for Native Speakers (G) - CRS 245 **[Credit 1.0]**

Main Campus - This course is designed to capitalize on the fluency, which the student already has, and to meet his/her particular language needs. The focus is on increasing vocabulary and refining the use of correct Spanish. An important part of the course is the improvement of reading and writing skills with an emphasis on grammar. The student will also become aware of Hispanic contributions to world civilizations.

Prerequisites: The student must be a native speaker of Spanish with sufficient skills to speak and understand Spanish. (This course is usually offered to students enrolled in Bilingual program).

Course Requirements: satisfactory notebook, culture project, Regents examination

Spanish 4T – Transitional - CRS 247 **[Credit 1.0]**

This course is a high school level Spanish course for students who would like to continue more advanced studies of the language. The T at the end of the course's name stands for the word "transition", meaning that the students who are going to take this course are between level three and a more advanced study of the Spanish language.

Prerequisites: Successful completion of Spanish 3 or Spanish for Native Speakers and Checkpoint B Exam. A cumulative average of 85% or above in both the course work and the examination is recommended.

Course Requirements: Satisfactory knowledge of Spanish grammar, intensive vocabulary study, basic writing and reading skills, cultural related projects and a final examination.

AP Spanish Language and Culture - CRS 248 **[Credit 1.0]**

This course is an advanced study of the Spanish language at the intermediate level. In this course, students will further develop the four linguistic skills of language learning. They will acquire a higher level of proficiency in the language through the usage of relevant materials such as computer technology, up-to-date textbooks, newspapers, magazines, films and individual presentations of students in class. The reading and writing aspect of this course will be achieved through the study of current literature of the Spanish-speaking world dealing with issues relevant to today's world. An in-depth study of grammatical structures will be incorporated throughout this course.

Prerequisites: Successful completion of Checkpoint B Exam. A cumulative average of 85% or above in both the course work and the examination is recommended. For students who are native-speakers, an average of 90% or above in Spanish for Native Speakers is recommended.

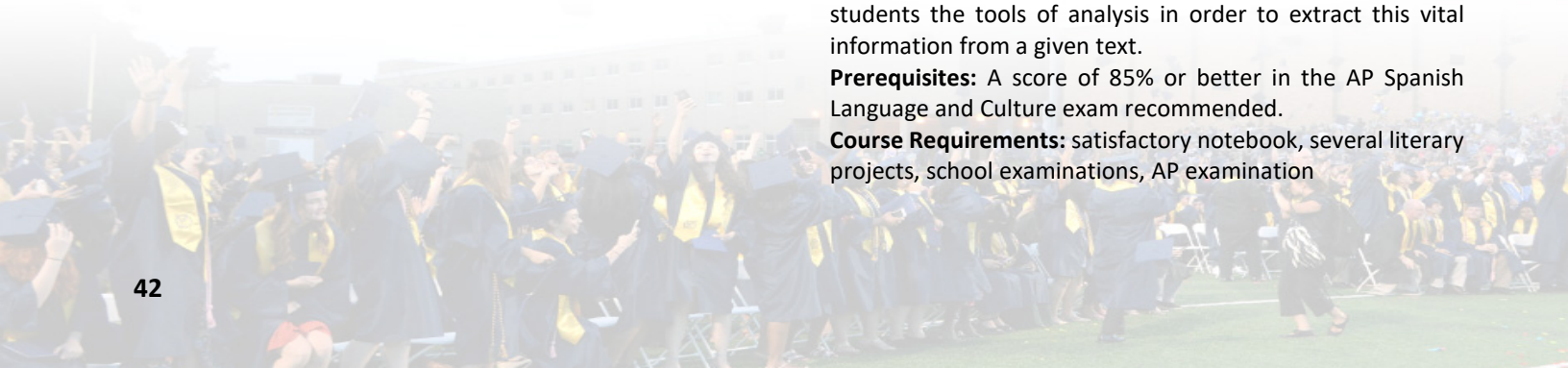
Course Requirements: Successful completion of coursework, AP Spanish Language examination recommended.

AP Spanish Literature - CRS 249 **[Credit 1.0]**

This course is designed to provide students with a learning experience equivalent to that of a third-year college course in Peninsular and Latin-American literature. This course covers the major movements in Hispanic literature from the medieval period through the latest literary trends. It breaks down the barriers of national literature to illustrate the ties that exist between the cultural productions of both sides of the Hispanic world. The literary text is taught, not as an end it itself, but as a cultural and historical construct from which we can glean many aspects of Hispanic studies – from simple customs to basic values. The goal of the course is to teach students the tools of analysis in order to extract this vital information from a given text.

Prerequisites: A score of 85% or better in the AP Spanish Language and Culture exam recommended.

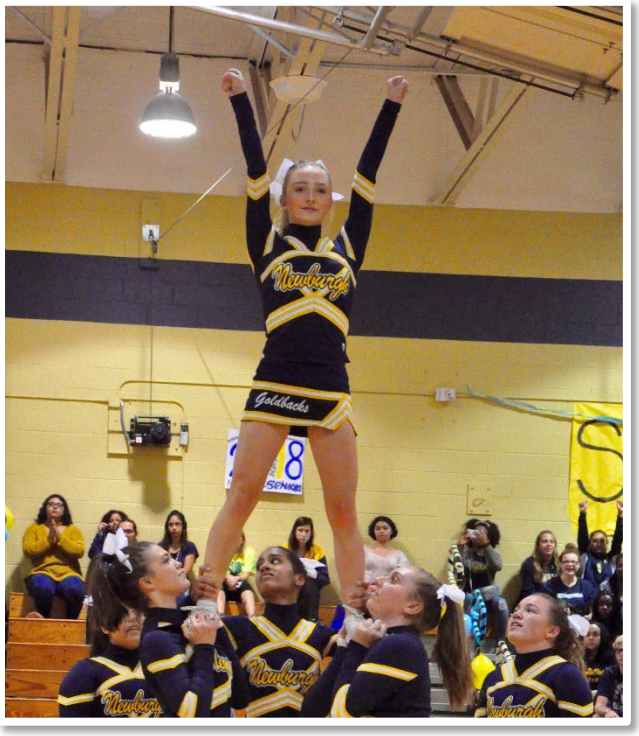
Course Requirements: satisfactory notebook, several literary projects, school examinations, AP examination



Spanish 4 – Conversational CRS 238 [Credit 1.0]

This is a college course given through the program called "High School at the University, at the State University of New York Albany Campus". Students enrolled in this course will continue the study of the Spanish language equivalent to an intermediate level course of study at the university level. **Prerequisites:** Students must have completed three years of Spanish successfully at the Regents level. It is recommended that the student have a cumulative average of 85% or above in both the course work and the examination.

Course Requirements: Emphasis will be given to the acquisition of new vocabulary and new expressions of the language. Emphasis will also be given to conversational and Spanish 4, cont'd - comprehensive skills. Students will have in-depth review of grammatical structures and writing skills. At the end of the year, students will take an oral and written final examination.



Studio Art Courses

Studio Arts Courses –the following course can be used for the required studio art credit for graduation.

Clothing and Textile/Intern Design CRS 790 Credit 1.0

Main Campus- The content of this course includes the cultural and historical aspects of textiles and clothing, personal appearance, the design, construction and selection of clothing and related career opportunities. Students will learn basic pattern use and sewing machine skills. Students will learn the elements and principles of design and how to use color. The content of this course studies housing history and current trends in interior design.

Prerequisites: None

Course Requirements: The completion of one clothing project and the purchase of patterns and notions needed to complete their garment.

Design and Drawing for Production - CRS 660 [Credit 1.0]

The Design and Drawing for Production (DDP), course of study, are focused on technical drawing techniques, the different styles of drafting, and promote creative problem solving through design. Projects will be centered on a variety of drawing styles, the design process, 3-dimensional modeling skills using AutoCAD, and model making. Assignments will include all forms of technical drawing and presentations. Students who plan to enter into the architectural field, engineering design or other technical studies should consider this fundamental course as early as possible.

Prerequisites: None

Digital Studio in Art - CRS 6011 [Credit 1.0]

Main Campus- In this class, students will study a variety of media, art styles, and artists. Students use image editing, compositing, animation, and digital drawing to put into practice the art principles discussed in the program. They explore career opportunities in the design, production, display, and presentation of digital artwork.

Prerequisites: None

Course Requirements: Completion of projects, work process, and portfolio

Studio in Art - CRS 601 [Credit 1.0]

Both Campuses - As a Drawing and Painting foundation course in this department, Studio in Art introduces students to a variety of concepts, skills, and techniques necessary for successful visual expression. Many different media will be used in areas of exploration and experimentation. Students will learn to analyze their work, study important works of art and participate in discussions about art.

Prerequisites: None

Course Requirements: Completion of projects, work process, and portfolio

Visual Communications & Design 1 - CRS 631 [Credit 1.0]

Main Campus - This is a foundation course for students who are motivated toward study in advertising and graphic design. To be successful in advertising, you have to understand the creative process and how words and pictures connect. Using contemporary media similar to that used by professionals, students will engage in process-oriented projects like generating print ads. An introduction to computer graphics, desktop publishing, storyboards for television and radio spot ads makes this course the choice for students looking for a future in the communications field.

Prerequisites: None

Course Requirements: Sketchbook and portfolio including projects, research, and a final evaluation.

NFA North Elective Courses

Child Development - CRS 751 **[Credit 1.0]**

Child Development is a great place to grow! Real life skills elective open to all students, especially beneficial for those in a Home Health Career Path. Education in a nurturing environment, fostering creativity and some hands-on experiences. Become competent exploring pregnancy, infants, childhood, parenting and related careers.

Prerequisites: None

Course Requirements: Make a toy for a child and completion of assignments

Introduction to Food - CRS 780 **[Credit 1.0]**

Introductory kitchen knowledge and experiences in basic food preparation. Access the Social and Traditional Roles of Food and YOUR food choices. Explore food etiquette and situations requiring special diets. An elective open to all students, especially those taking a Home Health Career Path.

Prerequisites: None

Course Requirements: Completion of reading/written assignments, and active participation in all aspects of lab experiences.

Human Development - CRS 750 **[Credit 1.0]**

Build better relationships. Develop ways to handle stress. Explore personal growth and goals. Discover Leadership through Awareness!

Prerequisite: None

Course Requirements: Completion of all class assignments, projects and tests.

Career and Technical Education

Department Vision

The Newburgh Free Academy Career Pathway programs will prepare all students to be lifelong learners who can adapt to a changing world. Our graduates will be ready to transition to a career or college.

Department Mission

The mission of the Visual Arts and Career and Technical Education program is to cultivate the potential in our students by integrating rigorous classroom instruction with relevant, work-based experiences that inspire, guide and empower them for post-secondary college and careers. Our CTE program will bridge the academic, employability and technical skills that prepare our students for leadership roles in the working world.

Notes on choosing your Pathway Program

The Newburgh Free Academy Career Pathway programs emphasis is on developing workplace skills and academic rigor that enables our students to become better qualified to compete for a career of their choosing. Our career courses allow students to discover their talents, skills, and abilities and then chart an appropriate path toward career choices to produce a more informed, satisfied, and productive workforce.

Students will be required by 10th grade to lock in their Pathway course of study. Each Pathway program is a course of study that leads to a special designation on the diploma upon graduation. Additionally, the description of the courses listed for each Pathway must be taken sequentially as they are specific to the New York State approved national CTE assessment.

Art Design and Visual Communications Multiple Pathways
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Studio Art 601 **Visual Communications I 631** **Digital Studio Art 6011**
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Comprehensive Drawing 620 **Ceramics I 602**
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Ceramics II 603
English 12
Government/ Economics
Physical Education
Ceramics III 604

Art Design and Visual Communications Course Descriptions

Digital Studio in Art - CRS 6011 **[Credit 1.0]**

Main Campus In this class, students will study a variety of media, art styles, and artists. Students use image editing, compositing, animation, and digital drawing to put into practice the art principles discussed in the program. They explore career opportunities in the design, production, display, and presentation of digital artwork.

Pre-requisites: None

Course Requirements: Completion of projects, work process, and portfolio

Studio in Art - CRS 601 **[Credit 1.0]**

Both Campuses - As a Drawing and Painting foundation course in this department, Studio in Art introduces students to a variety of concepts, skills, and techniques necessary for successful visual expression. Many different media will be used in areas of exploration and experimentation. Students will learn to analyze their work, study important works of art and participate in discussions about art.

Prerequisites: None

Course Requirements: Completion of projects, work process, and portfolio

Ceramics 1 - CRS 602 **[Credit 1.0]**

Both Campuses - An introductory course is offering a study of basic clay working processes using hand building techniques as well as the potter's wheel. Design and craftsmanship will be stressed.

Prerequisites: Studio in Art

Course Requirements: Completion of projects

Ceramics 2 - CRS 603 **[Credit 1.0]**

Main Campus - This course will emphasize extensive operation of the potter's wheel; as well as the history and theory of ceramics. Students will also research the use of clay as art, and as a craft.

Prerequisites: Ceramics 1

Course Requirements: Advanced hand-building/production on the wheel and a final project.

Ceramics 3 - CRS 604 **[Credit 1.0]**

Main Campus - This course is designed for the serious-minded student contemplating a career in ceramics. Projects will be tailored toward career options in higher education or employment. Development of personal style will be encouraged.

Prerequisites: Ceramics 2

Course Requirements: Advanced hand-building/production on the wheel and a final project.

Art Design and Visual Communications Multiple Pathways (Continued)
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Visual Communications Design I 631 **Digital Studio Art 6011**
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Visual Communications Design II 632
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Visual Communications Design III 633
English 12
Government/ Economics
Physical Education
AP Studio 608

Visual Communications Course Descriptions

Visual Communications & Design I - CRS 631 **[Credit 1.0]**

Main Campus - This is a foundation course for students who are motivated toward study in advertising and graphic design. To be successful in advertising, you have to understand the creative process and how words and pictures connect. Using contemporary media similar to that used by professionals, students will engage in process-oriented projects like generating print ads. An introduction to computer graphics, desktop publishing, storyboards for television and radio spot ads makes this course the choice for students looking for a future in the communications field.

Prerequisites: None

Course Requirements: Sketchbook and portfolio including projects, research, and a final evaluation.

Visual Communication & Design II - CRS 632 **[Credit 1.0]**

Main Campus - This course is designed for the student considering a career in advertising, graphics, and editorial design, including three-dimensional displays and advanced illustration techniques. Continued emphasis will be placed on the creative process; computer generated type/graphic design and editorial layout via desktop publishing. Graphic design is not just about designing logos or laying out pages in a magazine. The design is everywhere, and as we progress further into a visually oriented world, the importance of visual literacy becomes even more apparent.

Prerequisites: Visual Communication & Design 1

Course Requirements: Additionally, students are required to maintain a sketchbook, folder, and portfolio; as well as attend various field experiences.

Visual Communication & Design III - CRS 673 **[Credit 1.0]**

Main Campus- In this course, the students will work in a rigorous technical studio environment to gain creative and practical skills in the graphic design industry. Students will need to use the prior knowledge obtained in the prior course of real-world application. Students will meet with Prudential clients to design a logo or advertisements. Students listen to details and requests and then think as a designer, to then utilization the creative process, effective learning, collaboration, and technological expertise.

Prerequisites: Visual Communication & Design 1 and 2

Course Requirements: Completion of production work, class assignments and tests.

Painting & Drawing (Continued)
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Studio Art 601
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Comprehensive Drawing 620
Painting & Drawing I 621
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Painting and Drawing II
English 12
Government/ Economics
Physical Education
Painting and Drawing III 622
AP Studio 608

Painting & Drawing Course Descriptions

Comprehensive Drawing - CRS 620 **[Credit 1.0]**

Main Campus - The basis of most successful artistic efforts is the development of student's ability to draw. This comprehensive course is designed to aid students in developing skills necessary for success in advanced art courses. Students will draw extensively using a variety of materials. Open to all students.

Prerequisites: None

Course Requirements: Completion of production work, class assignments, and tests.

Painting & Drawing 1 - CRS 621 **[Credit 1.0]**

Both Campuses - Serious students who have demonstrated a sincere interest in drawing and painting experience a variety of media, oil, acrylic and watercolor paints, charcoal, pencil, and crayon. Of concern will be the development of individual artistic expression. Consideration will be given to theory and history of painting and the works of important artists.

Prerequisites: Studio in Art

Course Requirements: Completion of sketchbook and painting portfolio

Painting & Drawing 2 - CRS 622 **[Credit 1.0]**

Both Campuses -This is an advanced painting course for students whose interest, seriousness and talent have been demonstrated in the first year of study. Considerable emphasis will be placed on coordinating technique with personal expression.

Prerequisites: A grade of 85% or higher in Painting & Drawing 1

Course Requirements: Completion of sketchbook and painting portfolio

Painting & Drawing 3 - CRS 623 **[Credit 1.0]**

Both Campuses -This course continues the development of skills presented in Painting and Drawing 2 as well as provides an opportunity for individualized instruction for those students contemplating a career in the fine arts. Particular emphasis will be placed on the methods, techniques, and practices of contemporary art and artists.

Prerequisites: Painting & Drawing 2

Course Requirements: Completion of sketchbook and painting portfolio

AP Studio Art - CRS 608 **[Credit 1.0]**

Main Campus - This course is a focused, in-depth study of media, techniques, and the creative process. It is intended for students who wish to pursue serious study in the arts. This is a college-level course that prepares the students for advanced work.

*Assessment by the College Board may qualify a student for college credit.

Prerequisites: Studio in Art and one other art course

Course Requirements: Completion of all AP Portfolio Criteria

Photography Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Digital Studio Art 6011
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Photography 671
English 11
Global II
Algebra II
Physical Education (opposite Sci. Lab)
Chemistry (or Sci. elective)
Advanced Photography 672
English 12
Government/ Economics
Physical Education
AP Studio 608

Photography Course Descriptions

Digital Studio in Art - CRS 6011 **[Credit 1.0]**

Main Campus- In this class, students will study a variety of media, art styles, and artists. Students use image editing, compositing, animation, and digital drawing to put into practice the art principles discussed in the program. They explore career opportunities in the design, production, display, and presentation of digital artwork.

Pre-requisites: None

Course Requirements: Completion of projects, work process, and portfolio

Photography - CRS 671 **[Credit 1.0]**

Main Campus - Designed for beginning and advanced students, this program is a rigorous combination of technical, aesthetic and historical presentations, digital and darkroom work, studies in photographic composition, critical group discussions and written responses to readings, lectures, and gallery visits. In addition to the digital camera and editing concepts, students will be introduced to film photography, darkroom printing, and scanning of film images for manipulation in the digital editing format. Students will learn about digital printing and preparation of work for display. Photography students will have created a portfolio of work that can be used to present for post-high school studies and career opportunities.

Pre-requisites: Digital Studio in Art, Studio in Art, Visual Communications & Design I

Course Requirements: Participation in class work, homework, and class discussions. Creation of a photographic portfolio.

Advanced Photography - CRS 634 **[Credit 1.0]**

Main Campus - This course explores advanced photographic procedures and techniques. Continuation of aesthetic concepts in photographic composition, students will learn advanced digital camera work and Photoshop editing techniques Delving deeper into darkroom film photography, students will work with alternative films and camera formats. Research and written component involving documentary photography history and practicum. An independent portfolio of thematic work will be created over the course of the school year to expand subject matter choices and composition approaches.

Pre-requisites: CRS 671 Photography

Course Requirements: Participation in class work, homework and class discussions. Independent work and research project. Creation of a photographic portfolio.

AP Studio Art - CRS 608 **[Credit 1.0]**

Main Campus - This course is an in-depth study of media, techniques, and the creative process. It is intended for students who wish to pursue serious study in the arts. This is a college-level course that prepares the students for advanced work.

*Assessment by the College Board may qualify a student for college credit.

Prerequisites: Studio in Art and one other art course

Course Requirements: Completion of all AP Portfolio Criteria

Auto Body Repair Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Basic Auto Body 722
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Auto Body I -702 (2 Periods)
Auto Body I Lab
English 12
Government/ Economics
Physical Education
Auto Body II 703 (2 Periods)
Auto Body II Lab
Optional – Internship/ Cap Stone 763 and 764

Auto Body Repair Course Descriptions

Basic Auto Body - CRS 722 [Credit 0.5]

Main Campus - Students entering this course should be considered a sequence in Occupational Education and have a strong interest in auto body repair or vehicle maintenance. Good reading skills and mature work behavior is a must. Instruction will include:

1. Auto body safety and work attitudes
2. Career opportunities
3. Basic auto body repair materials, and repair procedures.
4. Basic hand tools and dolly repairs

Practical application will be done on test panels, not live autos. This course will not include student-owned vehicle repair and repainting.

Prerequisites: None

Course Requirements: Students should expect to get dirty, and use of appropriate occupational clothing is required.

Auto Body 1 - CRS 702 [Credit 2.0]

Main Campus - This course is intended for the student who is seriously considering Auto Body Repair and Refinishing as a career. The course will require a two-period time block for a full year.

The course will include:

1. Auto Body Shop practical, appropriate work behavior, attitude and career opportunities
2. Automotive Repair Welding Systems. Oxyacetylene, MIG and Resistance Spot Welding
3. Practical application of Auto Body repair materials and repair procedures for metal, fiberglass, and plastic.
4. Advanced application of abrasives with air and electrical power tools
5. Removal, repair, and replacement of Auto Body panels
6. Introduction to painting and refinishing materials and techniques

Prerequisites: Basic Auto Body #722

Course Requirements: Students must provide suitable work clothes and work-type shoes.

Auto Body 2 - CRS 703 [Credit 2.0]

Main Campus - This course is intended to further prepare the student for Auto Body Repair, to accept entry-level employment in the field or secondary education in auto body. Full-year 2 periods a day, every day. The second-year instruction will stress skills such as:

1. Advanced repair of sheet metal, fiberglass, and plastics
2. Collision estimating and basic frame straightening for autos
3. Advanced paint systems as used on modern cars and light trucks, including acrylic enamel, polyurethane enamels, epoxies for spot, panel, and overall repainting; base coat/clear coat technology

Prerequisites: Auto Body 1 #702

Internship/Cap Stone Project - CRS 763 & 764 [Credit 0.5 and 1.0]

Mentor/Mirror/ Job shadow professionals in the field.

Make connections for YOUR SUCCESSFUL Career in your area of study.

Prerequisites: CRS 722 & 702

Course Requirements: Students will be required to prepare a project and do a presentation at the end of the course.

Automotive Technology Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Fund. Auto Technology 721
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Auto Technology I 700 (2 Periods)
Auto Technology I Lab
English 12
Government/ Economics
Physical Education
Auto Technology II 701 (3 Periods)
Auto Technology II Lab
Auto Technology II Lab
Optional – Internship/ Cap Stone 763 and 764

Automotive Technology Course Descriptions

Fundamentals of Modern Auto Maintenance - CRS 721 **[Credit 0.5]**

Main Campus - This course is designed for students who know little about cars. Basic Auto Technology provides detailed information on how basic automotive systems work, how to maintain automobiles and do simple repairs. Designed for beginners, the everyday needs of the automobile owner/operator are addressed in this course. Some topics include engine tune-up, tire inspection, rotation, wheel balancing, brake inspection and repair, and exhaust inspection, repair, engine oil, and fluids. When completed, this hands-on course can lead the student into a three-year automotive technology sequence or provide the student with enough knowledge and experience to be self-sufficient in basic automotive repairs and save them money for years to come!

Prerequisites: None

Course Requirements: Students should expect to get hands dirty and use appropriate occupational clothing.

Auto Mechanics 1 - CRS 700 **[Credit 2.0]**

Main Campus – This course is designed for the serious automotive student after completing Fundamentals (Basic Auto). Students can expect to learn engine mechanics including engine performance and design, as well as, starting and charging systems, maintenance of cooling and lubrication systems. Also, chassis mechanics, including brakes, suspension, and driveline maintenance, and an introduction to the use of testing equipment is stressed.

Prerequisites: Basic Auto Mechanics #721

Course Requirements: Students must provide suitable work clothes and work shoes.

Auto Mechanics 2 - CRS 701 **[Credit 3.0]**

Main Campus - The second year builds upon material learned in Occupational Auto 1, as well as an introduction to more advanced automotive technology. Vehicle driveline, suspension systems, wheel alignment, engine diagnosis, electronic ignition, fuel injection, and an introduction to computerized engine controls are covered detail. Completion of this course will allow the student to begin a career in Automotive Mechanics on an entry level. The course will also guide students who choose to obtain a post-secondary education in Automotive Technology.

Prerequisites: Completion of Auto Mechanics I #700

Course Requirements: Students must provide suitable work clothes and work shoes. Completion of assignments.

Internship/Cap Stone Project - CRS 763 & 764 **[Credit 0.5 and 1.0]**

Mentor/Mirror/ Job shadow professionals in the field. Make connections for YOUR SUCCESSFUL Career in your area of study.

Prerequisites: CRS 721 &700

Course Requirements: Students will be required to prepare a project and do a presentation at the end of the course.

Barbering Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Barbering I 795 (2 periods)
Barbering I Lab
English 12
Government/ Economics
Physical Education
Barbering II 796 (2 periods)
Barbering II Lab

Barbering Course Descriptions

Barbering I - CRS 795 **[Credits 1.0]**

Main Campus - This course includes the practice and study of the fundamentals of soft skills, safety and handling of equipment, shampooing, unisex haircuts, manicures, facials, scalp treatments, massage manipulations, proper draping, and decontamination and infection control. Students will have access to laptops containing eBooks, and the ability to notetaking, highlight, and self-test through digital means. Students will be required to pass practical and written exams. A passing grade, 250 hours, and an apprenticeship at a barbershop is required to advance to Barbering II.

Prerequisites: None

Course Requirements: A three ring binder

Barbering II - CRS 796 **[Credits 2.0]**

Main Campus - This course includes the practice and study of the fundamentals of soft skills, advanced haircutting techniques, facial/neck straight razor shaving, hands-on experience in the senior clinic, preparation for the New York State Practical Licensing exam. Students will have access to laptops containing eBooks, and the ability to notetaking, highlight, and self-test through digital means. Students will be required to pass practical and written exams. A passing grade, 250 hours, and an apprenticeship at a barbershop is required to be eligible to sit for the New York State Licensing Examination.

Prerequisites: 250 hours, Apprenticeship, Barbering I

Course Requirements: Purchase of towels, water bottle, shaving cream, shampoo cape, massage cream, cleansing cream, and shampoo are necessary extra supplies for the New York State Licensing exam.

Computer Science and Coding Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (opposite Sci. Lab)
Foreign Language
Introduction to Computer Science 418
Motion Graphics and Animation for Web 419
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (opposite Sci. Lab)
Health
Web Design I 620
English 11
Global II
Algebra II
Physical Education (opposite Sci. Lab)
Chemistry (or Sci. elective)
Programming-Javascript~685
English 12
Government/ Economics
Physical Education
Programming-Python~

Computer Science and Coding Course Descriptions

Introduction to Computer Science - CRS 418 **[Credit 0.5]**

This is the first computer science course introducing the basics of designing a web page, the basics of programming and an introduction into basic JavaScript and graphics. Students will learn the basics of HTML, CSS and JavaScript in this course. The course gives students the opportunity to explore and create in several programming languages and develop an interest in computer science that will foster further careers in web technology.
Prerequisites: None
Course Requirements: Participation in hands on activities and completion of assignments.

Motion Graphics and Animation for Web - CRS 419 **[Credit 0.5]**

Students will get an introduction to the basic principles of animation as they use Adobe After Effects and Adobe Animate to create animated graphics and sequences. Students will combine graphics, sound, text and video to create and deliver interactive media for web and gaming applications.
Prerequisites: None
Course Requirements: Participation in hands on activities and completion of assignments.

Web Design I - CRS 684 **[Credit 1.0]**

Web Design I is a project-based course that teaches students how to build their own web pages. Students will learn programming languages HTML and CSS, and will create their own live homepages to serve as portfolios of their creations. By the end of this course, students will be able to explain how web pages are developed and viewed on the Internet, analyze and fix errors in existing websites, and create their very own multi page websites.
Prerequisites: None
Course Requirements: Participation in hands on activities and completion of assignments.

Programming-Javascript - CRS 685 **[Credit 1.0]**

Programming with Javascript is an introduction to computer science in which students will learn the foundations of computer science and basic programming. Students will develop logical thinking and problem-solving skills using JavaScript. Once students complete Programming using Javascript, they will have learned material equivalent to a semester college introductory course in Computer Science and be able to program in JavaScript.
Prerequisites: Web Design I
Course Requirements: Participation in hands on activities and completion of assignments.

Programming-Python – CRS TBD **[Credit 1.0]**

Programming with Python is an introduction to Python in which students will learn the fundamentals of computer programming as well as some advanced features of the Python language. Students use what they learn in this course to build simple console-based games. This course is equivalent to a semester-long introductory Python course at the college level.
Prerequisites: Web Design I
Course Requirements: Participation in hands on activities and completion of assignments

Construction Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Design & Drawing 660
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Intro to Carpentry 735
(Not required/ recommended) Architecture Design 664
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Carpentry I 740 (2 periods)
Carpentry I Lab
English 12
Government/ Economics
Physical Education
Carpentry II 741M (3 periods)
Carpentry Lab
Carpentry II Lab
Optional – Internship/ Cap Stone 763 and 764

Construction Course Descriptions

Design and Drawing for Production - CRS 660 **[Credit 1.0]**

The Design and Drawing for Production (DDP), course of study, are focused on technical drawing techniques, the different styles of drafting, and promote creative problem solving through design. Projects will be centered on a variety of drawing styles, the design process, 3-dimensional modeling skills using AutoCAD, and model making. Assignments will include all forms of technical drawing and presentations. Students who plan to enter into the architectural field, engineering design or other technical studies should consider this fundamental course as early as possible.

Prerequisites: None

Introduction to Carpentry - CRS 735 **[Credit 0.5]**

Main Campus - Course will introduce Basic Woodworking skills using hand machine tools. Projects will be tailored to incorporate various methods of furniture and cabinet construction.

Prerequisites: None

Course Requirements: Completion of assignments

Architectural Drafting and Design - CRS 664 **[Credit 1.0]**

Main Campus - The Architectural Drafting and Design course of study is focused on residential structures and 3-dimensional modeling skills. Projects will be centered on the design process, floor plan drafting, 3D model making, and sustainable building methods. Students will study the history of architectural design and techniques used in designing and planning residential structures.

Prerequisites: Design & Drawing for Production CRS 660

Carpentry 1 - CRS 740 **[Credit 2.0]**

Main Campus - A First-year course designed for students that intend to enter construction as a career. This is an introduction to carpentry as related to building and construction trades. Students will learn to read and interpret blueprints, estimate building costs, safe handling of hand tools and portable power tools, and techniques and processes involved in "rough" carpentry such as framing-floor, wall roof, sheeting, roofing, and siding.

Prerequisites: None

Course Requirements: Students must provide suitable work clothes and work shoes. Students must be willing to work outside.

Carpentry 2 - CRS 741 **[Credit 3.0]**

Main Campus - Second-year course for students that intend to enter construction as a career. Students will continue to refine skills developed in the first year. Also, they will learn finish carpentry skills; such as drywall installation and finishing trim door and window installation, finish floor installation.

Prerequisites: Building Construction/Carpentry 1 CRS 740

Course Requirements: Students must provide suitable work clothes and safety-type shoes. Willingness to do physical labor and work outside required.

Cosmetology Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Into to Cosmetology 794
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Cosmetology I 704 (4 periods)
Cosmetology I
Cosmetology I
Cosmetology I
English 12
Government/ Economics
Physical Education
Cosmetology II 705 (4 periods)
Cosmetology II
Cosmetology II
Cosmetology II

Cosmetology Course Descriptions

Introduction to Cosmetology - CRS 794 **[Credits 0.5]**

Main Campus - This is a ½-year hands-on course in the basics of cosmetology. Students will explore roller sets, finger waving, permanent wave wrapping, pin curls, thermal curling techniques, hair styling, and paraffin hand wax. Also, the students will practice soft skills for entry-level employment. Our theory includes the history of cosmetology, life skills, professional image and communication skills. Students will be required to take notes and chapter exams.

Prerequisites: None

Course Requirements: Complete practical and theory assignments. Attendance is critical to ensure students success.

Cosmetology I - CRS 704 **[Credits 4.0]**

Main Campus - This course includes the practice and study in the fundamentals of manicuring, shampooing, styling, permanent waving, chemical texture services, haircutting, and soft skills necessary for entry-level employment. We stress the importance of sanitation, sterilization, and personal and public hygiene. A passing grade, 500 hours, and complete notebook are necessary to Cosmetology II.

Prerequisites: None

Course Requirements: Purchase of Kit (Approximately $250.00)

Cosmetology II - CRS 705 **[Credits 4.0]**

Main Campus - The second year provides further mastery of the basic skills with an emphasis on general science, nail enhancement procedures, skin care, hair color, advanced hair cutting, preparing for employment, and basic skills necessary to pass the New York State licensing examination. The weekly senior clinic offers the students an opportunity to practice their skills in a real work environment. Completion of senior cosmetology requires a notebook, 500 hours, and a passing grade. Upon this completion, students will be eligible to sit for the New York State Licensing Exam.

Prerequisites: 500 hours completed Cosmetology I

Course Requirements: Update Cosmetology Kit, Three Ring Binder with 20 Dividers

Internship/Cap Stone Project - CRS 763 & 764 **[Credit 0.5 and 1.0]**

Mentor/Mirror/ Job shadow professionals in the field. Make connections for YOUR SUCCESSFUL Career in your area of study.

Prerequisites: CRS 704

Course Requirements: Students will be required to prepare a project and do a presentation at the end of the course.

Criminal Justice & Security and Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Intro. to Criminal Justice 714
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Criminal Procedure 716
English 12
Government/ Economics
Physical Education
Co-op Internship/Cap Stone Project 763

Criminal Justice & Security Course Descriptions

Introduction to Criminal Justice - CRS 714 **[Credit 1.0]**

North Campus
- Experience how a Criminal Mind operates
- Participate in simulations and labs
- Discover the justice system (police courts corrections services)
- Prepare for a Career in Security, Law, and Forensics

Prerequisite: None
Course Requirements: Completion of assignments

Criminal Procedures/Security - CRS 716 **[Credit 1.0]**

North Campus
- Apply Real Life Criminal Justice career skills
- Fingerprint, Criminal photography, Crime scene processing
- Examine Drawing and Court presentations for evidence
- Solve the Crime!
- New York State Security Certification and Job Opportunities!

Prerequisite: Introduction to Criminal Justice
Course Requirements: Completion of assignments

Internship/Cap Stone Project - CRS 763 **[Credit 0.5]**

North Campus
- Mentor/Mirror/ Job shadow professionals in the field
- Explore Careers as Police Officer, 911 Dispatcher, and Security Guard
- Make connections for YOUR SUCCESSFUL Career in Law Enforcement or Security!

Prerequisites: Law Enforcement /Security pathway- Introduction to Criminal Justice #714N, Criminal Procedures#716
Course Requirements: Students will be required to prepare a project and do a presentation at the end of this course.

Culinary Arts and Restaurant Management Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Intro to Food Service 780
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Culinary Career Choice 778 (2 Periods)
Culinary Career Choice Lab
English 12
Government/ Economics
Physical Education
Advanced Culinary Arts 733 (3 Periods)
Advanced Culinary Arts Lab
Advanced Culinary Arts Lab
Optional – Internship/ Cap Stone 780 and 778

Culinary Arts and Restaurant Management Course Descriptions

Introduction to Food Service CRS 780 Credit 1.0

Main Campus
- Build skills toward success in NFA Culinary Arts Program
- Understand Culinary Management
- Develop skills to prepare healthily and appetizing foods

Prerequisites: None
Course Requirements: Completion of assignments

Culinary Career Choice CRS 778 Credit 2.0

Main Campus
- This is a 2-period course
- Basic food preparation knowledge and skills
- Instruction by Culinary Experts in the operation of commercial food service equipment
- Course consists of both a lecture and lab component which is competency driven
- Preparation for college-level Culinary and Hospitality Schools

Prerequisites: Course 780
Course Requirements: Completion of assignments

Advanced Culinary Arts CRS 733 Credit 3.0

Main Campus
- This is a 3-period course
- Craft amazing and fun food using flames, knives, and creative chemistry
- Work with professional chefs to create gourmet foods, cakes, and pastries
- Develop entire food plans for unique diet plans
- Course consists of both a lecture and lab component which is competency driven
- Prepares students for job ready, domestic cooking and higher education at Culinary and Hospitality Schools

Prerequisites: CRS 780 & CRS 778 (Intro to Food and Culinary Career Choice)
Course Requirements: Completion of assignments

Internship/Cap Stone Project CRS 787 & 789 Credit 0.5 and 1.0

Mentor/Mirror/ Job shadow professionals in the field.
Make connections for YOUR SUCCESSFUL Career in the Food Industry.

Prerequisites: CRS 780 & 778
Course Requirements: Students will be required to prepare a project and do a presentation at the end of this course.

Electronics and Computer Repair Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Computer Repair 746
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Electronics I 706
English 12
Government/ Economics
Physical Education
Electronics 707
Optional – Internship/ Cap Stone 763 and 764

Electronics and Computer Repair Course Description

Basic Electricity - CRS 726 **[Credit 0.5]**

Main Campus - This course covers fundamentals of electricity and electronics. Topics covered will be basic housing wiring, electronics, low-voltage applications, tool identification and application, measuring, and basic audio systems. Students will make an electronics project and practice house wiring.

Prerequisites: None

Course Requirements: Completion of assignments

Computer Repair - CRS 746 **[Credit 1.0]**

Main Campus - This course is intended for the student who may be considering computer repair, computer science, or the electronics field as a career goal. This course will include some basic electronics theory, basic digital theory in addition to basic computer theory. This course will include troubleshooting techniques for computers, printers, and other peripheral devices.

Prerequisites: None - Basic Electricity #726 is recommended

Course Requirements: Completion of assignments

Electronics 1 - CRS 706 **[Credit 1.0]**

Main Campus - This course includes a review of basic mathematics and algebra and the introduction of basic physics. Basic electricity, DC and AC theory, and residential wiring and code compliance are emphasized. Lab work includes building sample residential walls to emphasize the application of schematic diagrams, proper wiring installation, and other test equipment.

Prerequisites: None

Course Requirements: Completion of assignments

Electronics 2 - CRS 707 **[Credit 1.0]**

Main Campus - This course continues the work and experience gained in Electronics 1. This course will continue to build the student's knowledge through applying their skills in various new situations. They will gain a deeper understanding of electrical code and safety issues that can arise. High voltage circuits and electrical panel work will be explored through classroom sample models. Students will learn to assess and troubleshoot common electrical issues and learn to repair and install new electrical components.

Prerequisites: Electronics

Course Requirements: Completion of assignments

Emergency Mangement Pathways
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Studio Art
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Introduction to Emergency First Responder 783
English 11
Global II
Algebra II
Physical Education (opposite Sci. Lab)
Chemistry (or Sci. elective)
Emergency and Disaster Management 787
English 12
Government/ Economics
Physical Education
Emergency Medical Services 784 or Fire Science 785
Internship/Capstone Project 763

Emergency Medical Services /Fire Science Course Descriptions

Introduction to Emergency First Responder - CRS 783 **[Credit 1.0]**

North Campus
- How to respond to medical, fire or mass casualty events
- Learn survival and rescue skills
- Learn how to prepare for disasters

Prerequisite: None
Course Requirements: Completion of assignments

Emergency and Disaster Management - CRS 787 **[Credit 1.0]**

North Campus
- Learn emergency management skills
- Learn emergency communication skills.
- Emergency Dispatch Certification

Prerequisite: Introduction to Emergency First Responder
Course Requirements: Completion of assignments

Emergency Medical Services -CRS 784 or Fire Science - CRS 785 **[Credit 1.0 Each]**

North Campus
- Learn First Aid, CPR, and AED earn Certificates
- Explore EMT and Paramedic Careers
- Learn about firefighting careers
- Learn the science behind fire
- Explore firefighting equipment and skills

Prerequisite: Introduction to Emergency First Responder and Emergency and Disaster Management
Course Requirements: Completion of assignments and certification tests

Internship/Cap Stone Project - CRS 763 **[Credit 0.5]**

North Campus
- Mentor/Mirror/ Job shadow professionals in the field
- Explore Careers in EMS and Fire Science

Prerequisites: Introduction to Emergency Response and Emergency, Disaster Management
Course Requirements: Students will be required to prepare a project and do a presentation at the end of this course.

Architecture & Engineering Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Design & Drawing 660
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Intro. To Carpentry 735
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Engineering Design 662M
English 12
Government/ Economics
Physical Education
Architecture Design 664
Carpentry I 740 (2 Periods)
Carpentry I Lab
Optional – Internship/ Cap Stone 763 and 764

Architecture & Engineering Course Descriptions

Design and Drawing for Production CRS 660 Credit 1.0

The Design and Drawing for Production (DDP) course of study are focused on technical drawing techniques, the different styles of drafting, and promote creative problem solving through design. Projects will be centered on a variety of drawing styles, the design process, 3-dimensional modeling skills using AutoCAD, and model making. Assignments will include all forms of technical drawing and presentations. Students who plan to enter into the architectural field, engineering design or other technical studies should consider this fundamental course as early as possible.

Prerequisites: None

Introduction to Carpentry CRS 735 Credit 0.5

Main Campus - Course will provide an introduction to Basic Woodworking skills using hand machine tools. Projects will be tailored to incorporate various methods of furniture and cabinet construction.

Course Requirements: Completion of assignments

Engineering Drafting and Design CRS 662 Credit 1.0

Main Campus - The Engineering Drafting and Design course involves advanced technical design and is focused on the design process and prototyping skills. Projects will be centered on the processes of research, brainstorming, sketching, template design, 3D modeling using Autodesk software, and 3D printing fundamentals. Students will study everyday physical objects and mechanical devices, attempting to replicate or make improvements to these items. Students will develop and test a variety of 3-dimensional models made both by hand and with 3D printers.

Prerequisites: CRS 660 - Design & Drawing for Production

Architectural Drafting and Design CRS 664 Credit 1.0

Main Campus - The Architectural Drafting and Design course of study is focused on residential structures and 3 dimensional modeling skills. Projects will be centered on the design process, floor plan drafting, 3D model making, and sustainable building methods. Students will study the history of architectural design and techniques used in designing and planning residential structures.

Prerequisites: CRS 660- Design & Drawing for Production

Carpentry 1 - CRS 740 [Credit 2.0]

Main Campus - This is an introduction to carpentry as related to building and construction trades. Students will learn to read and interpret blueprints, estimate building costs, safe handling of hand tools and portable power tool and techniques and processes involved in "rough" carpentry such as framing- floor, wall roof, sheeting, roofing, and siding.

Course Requirements: Students must provide suitable work clothes and work Shoes. Students must be willing to work outside.

Fashion Design Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Clothing Textile/Inter. Design 790
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Clothing Textile/Inter. Design 790
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Clothing Construction 614 (2 Periods)
Clothing Construction Lab
English 12
Government/ Economics
Physical Education
Advanced Clothing Construction 613m
Advanced Clothing Construction Lab

Fashion Course Descriptions

Clothing and Textile/Intern Design - CRS 790 **[Credit 1.0]**

Main Campus- The content of this course includes the cultural and historical aspects of textiles and clothing, personal appearance, the design, construction and selection of clothing and related career opportunities. Students will learn basic pattern use and sewing machine skills. Students will learn the elements and principles of design and how to use color. The content of this course studies housing history and current trends in interior design.

Prerequisites: None

Course Requirements: The completion of one clothing project and the purchase of patterns and notions needed to complete their garment.

Clothing Construction - CRS 614 **[Credit 2.0]**

Main Campus- This interdisciplinary course combines the elements of drawing/design and illustration in fashion with the sewing techniques of clothing production. After completion of a clothing line, each student's creation will be critiqued and evaluated during a runway fashion show in late May.

Prerequisites: Studio in Art, Fashion 1, Clothing, and Textile Design.

Course Requirements: Successful completion of a clothing line. The student must purchase some patterns, fabric, and notions.

Advanced Clothing Construction - CRS 613 **[Credit 1.0]**

Main Campus- This course is a continuation of Focus on Fashion. Fashion Design 3 requires more independent effort leading to the formation of a personalized portfolio. Student creations are judged in a runway fashion show in late May.

Prerequisites: Clothing Construction

Course Requirements: Portfolio and final examination/project. Concurrent enrollment in Clothing Textile Core. (790)

Graphic Communication Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Basic Graphics 725m
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Graphics Arts I
English 12
Government/ Economics
Physical Education
Graphic Arts II

Graphics Course Descriptions

Basic Graphic Arts - CRS 725 **[Credit 0.5]**

Main Campus - This course provides general knowledge and procedures in the Graphic Arts field and how it relates to the business world. The student is introduced to Computer Design on the Macintosh computer, using cutting-edge software including, Photoshop, In-Design, and Microsoft Word. Many projects are done in class.

Prerequisites: None

Course Requirements: Completion of assignments

Graphics 1 - CRS 708 **[Credit 1.0]**

Main Campus - This course is intended for students who are interested in the Graphic Arts field and its relationship with the business world. This course will cover Typography, Desktop Design, Computer Design, Graphics Manipulation, and copy preparation. Turning Words, Images, into media Masterpieces all with the Macintosh computer. Learning to market ourselves with cutting edge software Inc. Photoshop, In-Design, Microsoft Word

Prerequisites: None

Course Requirements: Completion of assignment.

Graphics 2 - CRS 709 **[Credit 1.0]**

Main Campus - This course is intended for students who are seriously interested in the mastering of computer technologies on the Macintosh platform. This course will cover Typography, Desktop Design, and Computer Design, Graphics Manipulation, copy preparation, resume, and many other helpful applications towards marketing yourself. Turning Words, Images, into media Masterpieces all using the Macintosh computer, learning to market ourselves with cutting edge software Inc. Photoshop,
In-Design, Microsoft Word, and I-Movie Many projects are done in class.

Prerequisites: Completion of Graphic Arts 1

Course Requirements: Completion of assignments

Personal Fitness Foundations Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Advanced Personal Fitness 7051
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Health &Fitness Foundations I 7502 (2 Periods)
Health &Fitness Foundations I 7502 Lab
English 12
Government/ Economics
Physical Education
Health &Fitness Foundations II 7503 (2 Periods)
Health &Fitness Foundations II 7503 Lab

Personal Fitness Foundations Course Descriptions

Advanced Personal Fitness - CRS 7501 **[Credit 1.0]**

Main Campus - The main focus at the start of this course will be on diet and fitness (learn to prepare healthy foods). Students will learn the basic study of the structure and function of the human body and its response to nutrition and specific exercise. The students will each be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology by the end of this course.

Prerequisites: None

Course Requirements: Participation in hands on activities and completion of assignments.

Health and Fitness Foundations I - CRS 7502 **[Credit 1.0]**

Main Campus - The main focus will be on personal training and sport/recreational management. Students are expected to prepare and participate in creating sports information, event and facility planning, program promotion, media relations and sports finance. The students will begin participating in the hands-on education-assistance program, working with the District Athletic Trainer in preventative services, emergency care, clinical diagnosis, therapeutic intervention, and rehabilitation of injuries.

Prerequisites: CRS 7501 Advanced Personal Fitness

Course Requirements: Participation in hands on activities and completion of assignments.

Health and Fitness Foundation II - CRS 7503 **[Credit 1.0]**

Main Campus - The final component of this program will have each student take an in-depth focus to a specific field of interest that was discovered from Health and Fitness Foundations 1. Students must take part in the work in a work-study (education-assistance) environment based on career goals of each student. Students are required by the end of this course to take the for Personal Training, First-Aid, CPR, and AED Certifications.

Prerequisites: CRS 7501 and 7502

Course Requirements: Complete their requirements for Personal Training, First-Aid, CPR, and AED Certifications

Health Science Education Pathway Overview

Healthcare is the largest and fastest-growing industry in the United States. In the Health Science Career Cluster, you can prepare for a career that promotes health, wellness, and diagnosis, and treats injuries and diseases. Students in health science learn and practice skills that prepare them for diverse post-high school education and training opportunities, from apprenticeships and two-year college programs to four-year college and graduate programs. Health Science Education Pathway is a program of interest for the student who is considering a professional career as Nurse Aide, Home Health Aide, Licensed Practical Nurse, Registered Nurse, Phlebotomist, Medical Tech/Assisting, Pharmacist, Physical Therapist, Dentistry, Social Work, Doctor and more.

This course pathway will provide you with the foundations of the Healthcare Industry while obtaining a variety of certifications such as Nurse Aide, Home Health Aide, CPR, Medical Assisting, and opportunity for professional license in Practical Nursing.

The Health Science pathway will provide students with a competitive edge to be the better candidate for either entry into the global healthcare marketplace and the post-secondary institution of their choice to continue their education and training in a Healthcare/Medical Profession. Leadership training is gained through aligned curriculum and participation in our Student-Centered Organization HOSA- Future Healthcare Professionals.

Recommended Academic Alignment for all students in Health Science Pathway:

Science: Living Environment, Chemistry, Anatomy, and Physiology, Biology/Microbiology

Math: Algebra, Medical Math, Prob. & Stat

Students planning to enter the Practical Nurse pathway, or continue Healthcare/Medical programs education in college will need to have strong Math, English/Writing, Science skills.

Required Health Science Career Pathway courses: (course descriptions on following pages)

- **Introduction to Health Science (10th grade)**
- **Allied Health Science 1 (11th grade) & Safety, Nutrition & Wellness (11th Grade)**
- **Allied Health Science 2 (12th grade)**

Certification Opportunities for students completing this pathway:

- American Heart Association Basic Life Support for Healthcare Providers
- American Heart Association Heart Saver CPR/AED
- American Heart Association First Aid
- NYS Nurse Aide Certification
- NYS Home Health Aide Certification
- Medical Assisting Certification
- Practical Nurse pathway students will be eligible to sit for the PN-NCLEX Licensing

Health Science Career Multiple Pathway
English 9
US History
Algebra 1
Liv. Env.. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Chemistry (or Sci. elective)
Physical Education (Opposite Sci. Lab)
Intro to Health Science Education 755
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Human Anatomy 542
Allied Health Pathway I 777
English 12
Government/ Economics
Physical Education
Medical Math 391
Methods in Medical Technology 507
Allied Health Pathway II 776 (2 Periods)
Allied Health Pathway II Lab

Introduction to Health Science - CRS 755 **[Credit 1.0]**

This is the first of many courses offered to students interested in pursuing a career in the healthcare field. During this first course, students are introduced to healthcare history, careers, law and ethics, cultural diversity, health care language and math, infection control, professionalism, communication, basics of the organization of healthcare facilities.

Prerequisites: None

Course Requirements: Students must have an 80% or higher to enroll in Allied Health I

**Students that are eligible for Practical Nurse pathway must meet eligibility criteria including TABE/TEAS exam, Interview, Essay, and Letter of Recommendation.*

Allied Health Science 1 - CRS 777 **[Credit 1.0]**

Students will learn about infection control, "Transmission Based Precautions" and become more familiar with OSHA, HIPPA, and the CDC. Students will learn how to take vital signs, record them and learn what the data means. This course will provide the foundation for further advancement in Health Science.

Prerequisites: 80 % or higher in CRS 775, good attendance, and teacher recommendation.

Course Requirements: Required to have a recent physical and immunization on record for this course. During clinical rotation, students must wear Uniform.

**Students must have an 80% or higher to enroll in Allied Health Science 2*

Allied Health Science 2 - CRS 776 **[Credit 2.0]**

Students will work to be First Aid and CPR certified before participating in any healthcare experience outside of the classroom. Instructional hours, lab skills practice hours, and clinical placement hours required by the state as a prerequisite to completion of the nurse aide training and registering for NYS Nurse Aide exam.

Prerequisites: Required have an 80% score or higher, good attendance, and a teacher recommendation in course 755 &777.

Course Requirements: Recent physical and immunization on record for this course. During clinical rotation, students must wear Uniform. Certification Opportunities possible for students completing this pathway:

- American Heart Association Basic Life Support for Health Care Providers
- NYS Nurse Aide Certification
- NYS Home Health Aide Certification
- Medical Assisting Certification

Health Science Education Pathway continued …

Medical Mathematics (North Campus Only) - CRS 391 **[Credit 1.0]**

North Campus- This course prepares students in the LPN program to strengthen the fundamental mathematics skills that are essential to the nursing field. Completion of this course will help students prepare for the TAPE and TEAS exams as well as for the foundational mathematics they will encounter in the nursing field. Topics include reading measurements, basic operations, ratio/proportion, solving equations, percentages, military time units, rounding and place value, exponents, unit conversions, exponential growth, formula manipulations, budgeting, estimations, data analysis, interpreting graphs, etc.

Prerequisites: Successful completion of two math credits one being Geometry Common Core

Course Requirements: All tests, quizzes, assignments, and local final exam must be completed.

Human Anatomy & Physiology (11, 12) - CRS 542 **[Credit 1.0]**

Human Anatomy and Physiology is an honors level course designed for both 11th and 12th grade students interested in learning more about the human body and/or may be interested in pursuing careers in the health sciences. The course is designed to introduce and expand the students' knowledge of the structure and function of the human body. This course will study basic biochemistry, cytology, histology, the maintenance of homeostasis, all body systems, and common diseases/disorders. An emphasis will be placed on the diagnosis, treatment, and the effects of various diseases on the human body using real life scenarios. An intense laboratory investigation program is built into the course allowing students to apply and exhibit their conceptual knowledge through hands-on applications. Double lab period on alternate days.

Prerequisites: Successful completion of Regents Living Environment and Regents Chemistry courses. Juniors and Seniors meeting these requirements are eligible for enrollment.

Course Requirements: Students must successfully complete all laboratory activities, chapter tests, case studies, and essays. Participation in class presentations and collaboration with peers is also required. A comprehensive final exam will be administered at the completion of the course.

Methods in Medical Technology (11, 12) - CRS 507 **[Credit 1.0]**

North Campus - This course may be used as the 3rd unit of science to meet diploma requirements for a Regents Diploma. The course may not be used for Regents credit. This course is the study of the principles and practice of clinical laboratory medicine, including approaching the patient, professional ethics, laboratory procedures, and the ECG technique. Use of technology to develop standard curves and determine clinical parameters like glucose and/or hemoglobin is studied. Students will prepare Levi-Jennings control charts, including determination of the mean, median, mode, standard deviation, and coefficient of variation configurations. Students will learn laboratory techniques in basic hematology using simulated human specimens, microbiology using non-pathogenic organisms, and immunology using simulated human specimens. Research in health care professions, interaction with guest speakers of healthcare professions and site visits to hospital departments are included. Correlated with lectures are readings and laboratory exercises to develop independent study. This is aligned with the Health Care Pathway at NFA North Campus. Students may be eligible for a certificate as a Medical Assistant.

Prerequisites: Successful completion of Regents Living Environment, Regents Chemistry, Regents Algebra I, all corresponding Regents exams, permission of the instructor.

Course Requirements: Completion of all prescribed laboratory work and rotation assignments in healthcare settings.

AIR FORCE JUNIOR RESERVE OFFICER TRAINING CORPS

The fundamental purpose of Air Force Junior Reserve Officer Training Corps (AFJROTC) is to build citizens of character dedicated to serving their nation and community. The program is governed by the U.S. Air Force, and the citizenship training is conducted under the framework of an aerospace science program designed for high school students. It will acquaint students with the Air Force and aerospace environment, promote leadership skills, develop communications skills and encourage physical fitness.

The curriculum is divided into a four-year program, with students earning one academic credit for each year of JROTC they complete. There is no minimum number of years a student must remain in JROTC, but motivated students gain rank and increased responsibility with each additional year, so the students that remain the longest get the most benefit. (Note: AFJROTC is not a military recruitment program, and there is no military obligation for participating. However, wear of the Air Force uniform, one day per week, is a mandatory part of the program.)

The AFJROTC program consists of the following three components: Aerospace Science, Leadership Education, and Wellness (i.e., physical training and healthy living).

Aerospace Science (AS). The academic portion of the program and it consists of several courses listed below. It acquaints students with the aerospace environment and introduces them to aircraft and spacecraft technology, principles of flight, human requirements of flight, earth's atmosphere and astronomy. The history of aviation and the space program are also discussed. Other courses focus on global awareness or survival.

Leadership Education (LE). The leadership portion of the curriculum designed to develop leadership skills and acquaint students with the practical application of life skills. It emphasizes discipline, responsibility, leadership, followership, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, and drill and ceremonies.

Wellness Program. This part of the program consists of participation in physical fitness activities, as well as training in first aid, health, and nutrition. The objective is to motivate cadets to lead healthy, active lifestyles.

The following are the specific aerospace and leadership courses offered at NFA and the projected schedule for the next four school years:

AS-100: A Journey into Aviation History
AS-200: Science of Flight: A Gateway to New Horizons
AS-220: Cultural Studies: (An Introduction to Global Awareness)
AS-300: Exploring Space: The High Frontier
AS-410: Survival: Survive and Return
LE-100: Traditions, Wellness, and Foundations of Citizenship
LE-200: Communication, Awareness, and Leadership
LE-300: Life Skills and Career Opportunities
LE-400: Principles of Management
LE-500: Drill and Ceremonies

Aerospace Science, Leadership Education, and Wellness
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Aerospace Education 1 940
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Aerospace Education 2 941
Studio Art
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Health
Aerospace Education 3 942
English 12
Government/ Economics
Physical Education
Aerospace Education 4 943

Aerospace Science, Leadership Education, and Wellness Course Descriptions

AEROSPACE EDUCATION 1 (9, 10, 11, 12) - CRS 940 [Credit 1.0]

Both Campuses -This Academic and Leadership Education course will follow the schedule above. All cadets will receive the same course of instruction for a particular year. At a minimum, field trips will be made to the West Point Confidence Course and to a regional park to participate in an orienteering competition. Other field trips to military establishments or civilian institutions associated with flying are a possibility. There will be ample opportunities to participate in leadership situations. Cadets may join the competition drill team on a voluntary basis.

Prerequisites: Be at least in the 9th grade, and a legal resident of the United States.

Course Requirements: Completion of, and passing grades in, academic and leadership assignments. Wearing of the uniform once per week and participation in fitness activities, the Annual Military Ball, Commander's Call, Annual Awards Ceremony and one of three local parades.

AEROSPACE EDUCATION 2 (10, 11, 12) - CRS 941 [Credit 1.0]

Both Campuses -This Academic and Leadership Education course will follow the schedule above. All cadets will receive the same course of instruction for a particular year. At a minimum, field trips will be made to the West Point Confidence Course and to a regional park to participate in an orienteering competition. Other field trips to military establishments or civilian institutions associated with flying are a possibility. There will be many opportunities to participate in leadership situations. Cadets may join the competition drill team on a voluntary basis.

Prerequisites: Successful completion of Aerospace Science 1 and recommendation by the Aerospace Science Instructors.

Course Requirements: Same as course 940

AEROSPACE EDUCATION 3 (11, 12) - CRS 942 [Credit 1.0]

Both Campuses-This Academic and Leadership Education course will follow the schedule above. All cadets will receive the same course of instruction for a particular year. At a minimum, field trips will be made to the West Point Confidence Course and to a regional park to participate in an orienteering competition. Other field trips to military establishments or civilian institutions associated with flying are a possibility. There will be ample opportunities to participate in leadership situations. Cadets may join the competition drill team on a voluntary basis.

Prerequisites: Successful completion of Aerospace Science 2 and recommendation by Aerospace Science Instructors.

Course Requirements: Same as Course 940

AEROSPACE EDUCATION 4 (12) - CRS 943 [Credit 1.0]

Both Campuses -This Academic and Leadership Education course will follow the schedule above. All cadets will receive the same course of instruction for a particular year. At a minimum, field trips will be made to the West Point Confidence Course and to a regional park to participate in an orienteering competition. Other field trips to military establishments or civilian institutions associated with flying are a possibility. There will be ample opportunities to participate in leadership situations. Cadets may join the competition drill team on a voluntary basis.

Prerequisites: Successful completion of Aerospace Science 3 and recommendation by Aerospace Science Instructors.

Course Requirements: Same as Course 940

Video Production Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Video Production 686
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Advanced Video Production 687
English 12
Government/ Economics
Physical Education
Co-op Work Video Production
Co-op Work Video Production
Optional – Internship/ Cap Stone 763 and 764

Video Production Course Descriptions

Video Production - CRS 686 **[Credit 1.0]**

Both Campuses - This course explores elementary video production principles, practice, and operation. Emphasis is placed on the laboratory elements of scripting, lighting, audio, camera, switching, character generator and Chroma key. Practical experience in producing video projects will be reviewed.

Prerequisites: None

Course Requirements: Completion of all class assignments and tests

Advanced Video Production - CRS 687 **[Credit 1.0]**

Both Campuses - This course continues exploring video production principles, practice and operation. Emphasis is placed on producing video projects for use on Goldback TV presentations.

Prerequisites: CRS 686 - Video Production

Course Requirements: Completion of all class assignments, projects and tests.

Internship/Cap Stone Project CRS 763 & 764 Credit 0.5 and 1.0

Mentor/Mirror/ Job shadow professionals in the field.

Make connections for YOUR SUCCESSFUL Career in your area of study.

Prerequisites: CRS 686

Course Requirements: Students will be required to prepare a project and do a presentation at the end of the course.

Welding Pathway
English 9
US History
Algebra 1
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Foreign Language
Required Art Credit
English 10
Global I
Geometry
Liv. Env. Or Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
Health
Basic Welding 729m
English 11
Global II
Algebra II
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
Welding I 712m (2 Periods)
Welding I Lab
English 12
Government/ Economics
Physical Education
Welding II 713m (2 Periods)
Welding II Lab
Optional – Internship/ Cap Stone 763 and 764

Welding Course Descriptions

Basic Welding - CRS 729 **[Credit 0.5]**

Main Campus - This course provides a general knowledge of basic principles and procedures used in the welding trade. The student is introduced to oxyacetylene, MIG, TIG, electric arc welding and plasma cutting. This course is helpful to the student who intends to enter the welding, auto mechanic, and auto body field.

Prerequisites: None

Course Requirements: Completion of assignments. Students must provide leather work boots

Welding 1 - CRS 712 **[Credit 2.0]**

Main Campus - This course is intended for the student who is seriously considering welding as a career. The course will include related theory and "hands-on" skills in oxyacetylene, electric arc, and metal inert gas "MIG" welding. Students will be introduced to the different welding positions. Welding proficiency will be gained with programmed practice skills and project construction.

Prerequisites: CRS. 729

Course Requirements: Students must provide suitable work clothes and safety-type shoes. Completion of assignments.

Welding 2 - CRS 713 **[Credit 2.0]**

Main Campus - This course expands greatly on blueprint reading and metallurgy and its relationship to welding. Students will gain advanced skills in oxyacetylene, electric arc "MIG" and "TIG" welding. All welding positions are covered: flat, horizontal, vertical and overhead. Students may be eligible to take the NYS DOT Welding test.

Prerequisites: CRS- 712- Welding 1

Course Requirements: Students must provide suitable work clothes and work shoes/boots. Completion of assignments.

Internship/Cap Stone Project - CRS 763 & 764 **[Credit 0.5 and 1.0]**

Mentor/Mirror/ Job shadow professionals in the field.

Make connections for YOUR SUCCESSFUL Career in your area of study.

Prerequisites: CRS 729

Course Requirements: Students will be required to prepare a project and due at the end of the course.

THIRD UNIT OPTIONS

Third Unit Options- Using Technology Education Courses as the Third Unit of Math or Science under the Revised Graduation Requirements

- In March of 1998, a committee comprised of math, science and technology stakeholders met with State Education Department personnel to discuss criteria for a course that could be used in the third unit of math or science under the revised graduation requirements.
- The criteria of this third unit are only to be used after the student has completed the first two units in math or science.
- Students under regulations can only take one of the course to count for their graduation requirements.

World of Technology Math - CRS 7541 [Credit 1.0]

Both Campuses - This course is designed to be used for the third unit of math under the revised graduation requirements. Learning experiences designed for the course emphasize problem-solving and critical thinking utilizing acquired **math skills in a technology** context and real-world application. Students will have to use system approaches requiring data analysis and mathematical modeling. Projects may include small woodcrafts, electronics, and problem-solving activities. Students may need to bring in small supplies for personal touches of projects.

Prerequisites: Successful completion of two Math level courses before enrollment.

Course Requirements: Completion of all assignments, projects, and tests Note: Open to 10th-grade students by permission of Director only.

World of Technology Science - CRS 7542 [Credit 1.0]

Both Campuses - This course is designed to be used for the third unit of science under the revised graduation requirements. Learning experiences designed for the course emphasize problem-solving and critical thinking utilizing acquired **science skills in a technology** context and real-world application. Students will have to use system approaches requiring data analysis and applied scientific principles and laws of nature. Projects may include small woodcrafts, electronics, and problem-solving activities. Students may need to bring in small supplies for personal touches of projects.

Prerequisites: Successful completion of two Science level courses prior to enrollment.

Course Requirements: Completion of all assignments, projects, and tests Note: Open to 10th-grade students by permission of Director only.

STUDIO ART COURSES

The following course can be used for the required studio art credit for graduation.

Clothing and Textile/Intern Design - CRS 790 [Credit 1.0]

Main Campus- The content of this course includes the cultural and historical aspects of textiles and clothing, personal appearance, the design, construction and selection of clothing and related career opportunities. Students will learn basic pattern use and sewing machine skills. Students will learn the elements and principles of design and how to use color. The content of this course studies housing history and current trends in interior design.

Prerequisites: None

Course Requirements: The completion of one clothing project and the purchase of patterns and notions needed to complete their garment.

Design and Drawing for Production - CRS 660 [Credit 1.0]

The Design and Drawing for Production (DDP), course of study, are focused on technical drawing techniques, the different styles of drafting, and promote creative problem solving through design. Projects will be centered on a variety of drawing styles, the design process, 3-dimensional modeling skills using AutoCAD, and model making. Assignments will include all forms of technical drawing and presentations. Students who plan to enter into the architectural field, engineering design or other technical studies should consider this fundamental course as early as possible.

Prerequisites: None

Digital Studio in Art - CRS 6011 [Credit 1.0]

Main Campus- In this class, students will study a variety of media, art styles, and artists. Students use image editing, compositing, animation, and digital drawing to put into practice the art principles discussed in the program. They explore career opportunities in the design, production, display, and presentation of digital artwork.

Pre-requisites: None

Course Requirements: Completion of projects, work process, and portfolio

Studio in Art - CRS 601 [Credit 1.0]

Both Campuses - As a Drawing and Painting foundation course in this department, Studio in Art introduces students to a variety of concepts, skills, and techniques necessary for successful visual expression. Many different media will be used in areas of exploration and experimentation. Students will learn to analyze their work, study important works of art and participate in discussions about art.

Prerequisites: None

Course Requirements: Completion of projects, work process, and portfolio

Visual Communications & Design 1 - CRS 631 [Credit 1.0]

Main Campus - This is a foundation course for students who are motivated toward study in advertising and graphic design. To be successful in advertising, you have to understand the creative process and how words and pictures connect. Using contemporary media similar to that used by professionals, students will engage in process-oriented projects like generating print ads. An introduction to computer graphics, desktop publishing, storyboards for television and radio spot ads makes this course the choice for students looking for a future in the communications field.

Prerequisites: None

Course Requirements: Sketchbook and portfolio including projects, research, and a final evaluation.

EXCELSIOR ACADEMY

Excelsior Academy
English 9
US History
Algebra 1
Environmental Science
Physical Education
Health
Foreign Language
Required Art Credit
English 10
Global I
Geometry/College Math course
Earth Sci. (Lab)
Physical Education (Opposite Sci. Lab)
College Success and Career Planning
English 11
Global II
College Math/Modeling in Mathematics
Physical Education (Opposite Sci. Lab)
Chemistry (or Sci. elective)
English 12/Freshman English
Government/ Economics
Physical Education
In addition to the coursework outlined above, students will take courses at SUNY Orange in 10th, 11th, and 12th grade that are aligned to either the Networking or Cyber Security degree requirements.

Excelsior Academy is a new model for teaching and learning that brings together high school, college, and the world of work in order to prepare students for the complex and ever-changing global workforce in information technology. Students in Excelsior Academy graduate with an Associate's in Applied Science degree from SUNY Orange, in addition to their high school diploma. They also obtain the skills and knowledge they need to continue their studies or step seamlessly into well-paying, high-potential jobs in the Computer Information Technology industry. Excelsior Academy offer project-based learning experiences and real-world applications of science, technology, engineering, and math. Students will develop important academic and career skills as they learn through projects developed in collaboration with IBM. Due to the accelerated pace of learning in Excelsior Academy, the length of the school day and the school year is longer for enrolled students.

English Courses - CRS 080T **[Credit 0.5]**

College Success and Career Planning (10, 11, 12)
This course taken for 3 college credits
Excelsior Academy - This is an interdisciplinary course designed to assist the student in making the transition to college, to promote the development of a successful college experience and to improve self-awareness and knowledge of the career decision-making process. Topics include self-exploration, career and career theory study, decision-making skills, information gathering from library and community resources, and the skills required for success in higher education and in career. Lectures films, individual and group exercises, reading and writing assignments will be used to provide students with an in-depth college and career planning experience.
Prerequisites: Successful completion of year 1 coursework and Excelsior Academy committee recommendation.

Freshman English 1 (11, 12) - CRS 081T **[Credit 0.5]**

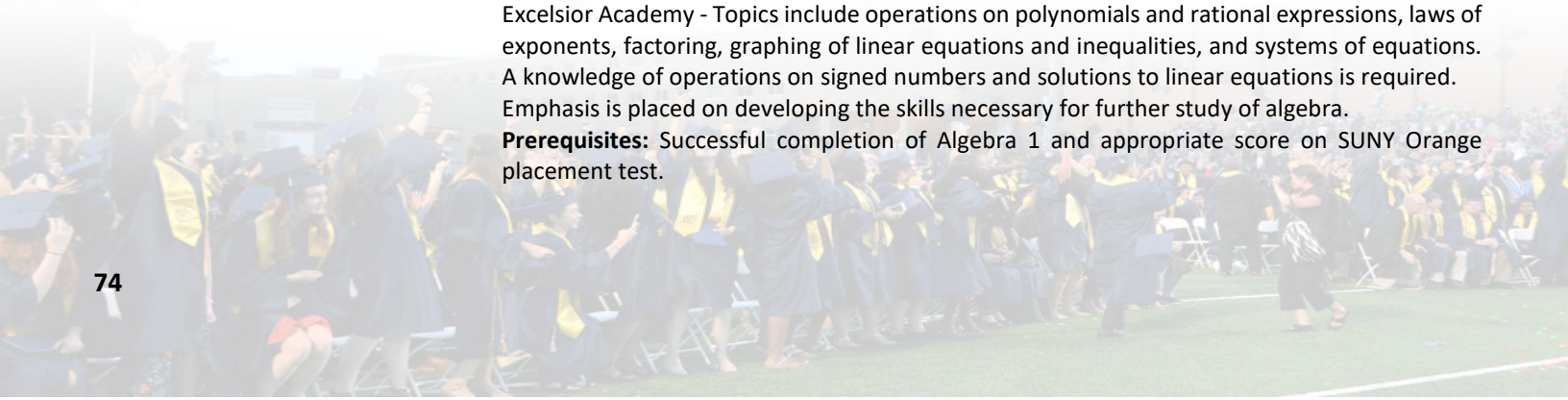
This course taken for 3 college credits
Excelsior Academy - This first course in the Freshman English sequence introduces college-level writing and revision, construction of expository essays, and research skills. Reading and class discussion center on the formal and informal essay. Research essay is required.
Prerequisites: Successful completion of English 9 and 10 as well as appropriate score on SUNY Orange placement test in both reading and writing.

Freshman English 2 (11, 12) - CRS 082T **[Credit 0.5]**

This course taken for 3 college credits
Excelsior Academy - In this second course in the sequence, students learn to read critically, to organize supporting details, and to develop coherent oral and written arguments. Fiction, drama and poetry are used as common texts. An analytical research paper is required.
Prerequisites: A grade of C or better in Freshman English 1

Elementary Algebra (10, 11, 12) - CRS 3202T **[Credit 0.5]**

This course taken for 3 college credits
Excelsior Academy - Topics include operations on polynomials and rational expressions, laws of exponents, factoring, graphing of linear equations and inequalities, and systems of equations. A knowledge of operations on signed numbers and solutions to linear equations is required. Emphasis is placed on developing the skills necessary for further study of algebra.
Prerequisites: Successful completion of Algebra 1 and appropriate score on SUNY Orange placement test.



Excelsior Academy Continued

Intermediate Algebra (10, 11, 12) - CRS 3203T **[Credit 0.5]**

This course taken for 3 college credits

Excelsior Academy - Topics covered: absolute value equations and inequalities, additional factoring techniques, radical expressions, complex numbers, quadratic equations, functions, graphing techniques, coordinate geometry, mathematical modeling, applications and problem solving.

Prerequisite: A grade of C or better in Elementary Algebra

College Algebra (10, 11, 12) - CRS 3200T **[Credit 0.5]**

This course taken for 3 college credits

Excelsior Academy - Topics include: a thorough treatment of the concept of functions and their graphs, linear and quadratic functions, polynomial and rational functions, inverse functions, exponential and logarithmic functions and conic sections.

Prerequisite: A grade of C or better in Intermediate Algebra or appropriate score on SUNY Orange placement test.

College Trigonometry (10, 11, 12) - CRS 3201T **[Credit 0.5]**

This course taken for 3 college credits. College Trigonometry is the second course for students who plan to continue on toward the study of Calculus. Topics include trigonometric functions, graphing techniques, right triangle applications, trigonometric identities, inverse functions, and oblique triangles.

Prerequisite: A grade of C or better in College Algebra.

Computer Information Technology - Networking

Computer Information Technology Networking	Credits
First Semester	
ENG 101 Freshman English 1	3
MAT College Algebra or higher	3
CIT 103 Management Information Systems	3
CIT 107 Introduction to C++ Programming	3
CIT 105 Data Communic. & Networking	3
CIT 100 Computer Literacy 3	3
Second Semester	
ENG 102 Freshman English 2 3	3
MAT College Trigonometry or higher 3	3
CIT 112 Computer Hardware and Software 4	4
CIT 116 Networking 1 4	4
PES 100 Concepts of Physical Wellness 1	1
Third Semester	
___ Social Science Elective 3	3
CIT 211 Systems Analysis 3	3
CIT 225 Database Fundamentals 3	3
CIT 217 Unix/Linux 3	3
CIT 203 Networking 2 4	4
PES ___ Physical Education 1	1
Fourth Semester	
____ Social Science Elective 3	3
CIT 212 Systems Design 3	3
CIT 206 Network Security 3	3
CIT 230 Internship 3	3
____Restricted Elective* 3	3
Total Credits: 65	**65**
**Restricted Electives:* *CIT 111 Internet & HTML Programming CIT 115 Visual Basic* *Any course approved by department*	

Recommended Course Sequence Program Description

The Associate in Applied Science degree program in CIT–Networking prepares students for employment in a variety of entry-level careers in computer networking and information technology occupations. The theory and practical experience students gain allows them to enter jobs with highly competitive salaries.

This degree program offers the coursework that provides background information for students to take the CompTIA's A+, Security+, Networking+, Linux+ and CISCO's CNA certification exams.

The primary focus of this degree program is networking computer systems including implementation, configuration, maintenance and administration of networking equipment, which includes creation of networking servers. The degree course work introduces students to basic computer systems and builds on theoretical and technical knowledge and skills to develop a strong understanding of networking topologies, mediums and medium access techniques in both local area and wide area networks (LANs and WANs). Classes are designed to provide students with hands-on training utilizing state-of- the-art computer facilities.

Students are also placed in a work environment in order to provide actual service to a business through the CIT–Networking internship.

Students are encouraged to discuss their future career and/or transfer goals with a CIT–Networking advisor.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (GEDs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission. (See pages 7 through 13 for more details on the admission process for all applicants.)

Student Learning Outcomes

Students will:

- Install and configure networking equipment.
- Implement and configure network protocols.
- Troubleshoot PC hardware problems.
- Assemble a PC.
- Identify and summarize security threats and appropriate actions to minimize those threats.
- Install, configure and manage a networking operating system.
- analyze an existing system and determine appropriate system design.
- Implementation strategies.

Cyber Security

Computer Information Technology Networking	Credits
First Semester	
ENG 101 Freshman English 1	3
MAT 121 College Algebra	3
CRJ 101 Intro to Criminal Justice	3
CIT 100 Computer Literacy	3
CIT 105 Data Communications and	3
Introduction to Networking	3
PES 100 Concepts of Physical Wellness	1
Second Semester	
ENG 102 Freshman English 2	3
CIT 116 Networking 1	4
CIT 112 Computer Hardware and Software	4
CIT 118 Operating Systems	4
Third Semester	
CIT 203 Networking 2	4
CIT 217 Introduction to Unix/Linux	4
CFR 221 Computer Forensics	3
CSS 223 Information Security	3
PSY Psychology	3
PES Physical Education	1
Fourth Semester	
CFR 222 Network Forensics	3
CSS 224 Network Perimeter Security	3
CSS 226 Cyber Crime Investigations	3
CRJ 111 Criminology	3
Math or Liberal Arts Science	3
Total Credits	**65**

Program Description

The Associate in Applied Science degree program in Cyber Security prepares students for employment in a variety of entry level careers in Cyber Security. Today, everyone is concerned with security, and people with knowledge in this area are in high demand.

Positions can include such titles as Network Administrator, network security specialist, information security technician, just to name a few. The main thrust is protection of information and limiting access to network resources. In addition to security, students will also be instructed in techniques used to track perpetrators once an attack has occurred.

In addition to basic computer and networking skills, the student will be instructed in Operating Systems, Computer Forensics, Network Forensics, Information Security, Network Perimeter Security, and

Cyber Crime Investigation.

Classes are designed to provide students with hands-on training utilizing state-of-the-art computer facilities. Lab work and assignments will present real world cyber security scenarios encountered in the work place. For forensics studies, industry standard software will be used.

While A.A.S. graduates are prepared to enter the workforce immediately, many students choose to transfer to upper-level programs leading to a bachelor's degree in technology. If students are considering this, they should consult with the department chair and advisors for program planning. Special planning is available for students entering the program with previous college credit or equivalent training/work experience.

Admission Criteria

Admission to this program requires that students be high school graduates or have high school equivalency diplomas (GEDs). If students are not high school graduates, they may be eligible for admission to the College's 24 Credit Hour Program. If students are home schooled, they may be eligible for admission.

Hudson Valley Educational Consortium students from Sullivan County Community College or Ulster Community College who plan to register for Cybersecurity courses must apply to and be accepted in the program by the following dates: August 15 for a Fall semester; December 15 for a Spring semester.

Student Learning Objectives

Students will:

- Develop basic network administration skills
- Perform computer forensic analysis
- Demonstrate an understanding of network forensics
- Develop an understanding of the legal issues associated with cyber security
- Document an appropriate procedure of handling case evidence

Departamento de Inglés como Nuevo Idioma

(English as a New Language -ENL)

ENL- Principiante (Gr. 9-10) - CRS 278B [Créditos 3]

Este curso es ofrecido a aquellos estudiantes que tienen gran dependencia de los recursos y estructuras para desarrollar sus habilidades lingüísticas académicas y todavía no han alcanzado las exigencias lingüísticas necesarias para demostrar dominio de inglés en diversos contextos o entornos académicos. Este curso se concentra en el inglés conversacional y en el principio de la lectura básica. Para obtener el máximo beneficio del inglés oral, esta clase es de tres periodos incluyendo 1 periodo de ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- Principiante (Gr. 11-12) - CRS 279B [Créditos 3]

Este curso es ofrecido a aquellos estudiantes que tienen gran dependencia de los recursos y estructuras para desarrollar sus habilidades lingüísticas académicas y todavía no han alcanzado las exigencias lingüísticas necesarias para demostrar dominio de inglés en diversos contextos o entornos académicos. Este curso se concentra en el inglés conversacional y en el principio de la lectura básica. Para obtener el máximo beneficio del inglés oral, esta clase es de tres periodos incluyendo 1 periodo de ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- Emergente (Gr. 9-10) - CRS 284B Créditos 2

Este curso ha sido diseñado para ayudar a los estudiantes a acostumbrarse al modo de enseñanza de los Estados Unidos y a fortalecer sus habilidades lingüísticas, en la lectura y la escritura en inglés. Este es el segundo curso de la serie de cursos del inglés como nuevo idioma. Esta clase es de dos periodos incluyendo 1 periodo de ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- Emergente (G. 11-12) - CRS 285B [Créditos 2]

Este curso ha sido diseñado para ayudar a los estudiantes a acostumbrarse al modo de enseñanza de los Estados Unidos y a fortalecer sus habilidades lingüísticas, en la lectura y la escritura en inglés. Este es el segundo curso de la serie de cursos del inglés como nuevo idioma. Esta clase es de dos periodos incluyendo 1 periodo de ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- En Transición (Gr. 9-10) - CRS 258B [Créditos 1 (ELA)]

Este curso ha sido diseñado para ayudar a los estudiantes que demuestran cierta independencia en desarrollar habilidades académicas lingüísticas necesarias para demostrar dominio del inglés en diversos contextos o entornos académicos. Es para estudiantes que están en el nivel de Transición de inglés como nuevo idioma pero que todavía necesitan mucha práctica en la lectura y la escritura en inglés. Los estudiantes del nivel en Transición participan en un curso de inglés regular con la asistencia del meastro(a) de ENL: ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o del NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- En Transición (Gr. 11-12) - CRS 259B [Créditos 1 (ELA)]

Este curso ha sido diseñado para ayudar a los estudiantes que demuestran cierta independencia en desarrollar habilidades académicas lingüísticas necesarias para demostrar dominio del inglés en diversos contextos o entornos académicos. Es para estudiantes que están en el nivel de Transición de inglés como nuevo idioma pero que todavía necesitan mucha práctica en la lectura y la escritura en inglés. Los estudiantes del nivel en Transición participan en un curso de inglés regular con la asistencia del meastro(a) de ENL: ELA/ENL co-integrado.
Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o del NYSESLAT
Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- En Expansión (Gr. 9-10) - CRS 263B [Créditos 1 (ELA)]

Este curso ha sido diseñado para estudiantes que están en el nivel avanzado y demuestran gran independencia en desarrollar las habilidades académicas lingüísticas y están cerca de alcanzar las exigencias lingüísticas necesarias para demostrar dominio del inglés en diversos contextos o entornos académicos. Es para estudiantes que están en el nivel de Expansión de inglés como nuevo idioma pero que todavía necesitan práctica en la lectura y la escritura en inglés. Los estudiantes del nivel en Expansión participan en un curso de inglés regular con la asistencia del meastro(a) de ENL: ELA/ENL co-integrado.

Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o del NYSESLAT

Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

ENL- En Expansión (Gr. 11-12) - CRS 264B [Créditos 1 (ELA)]

Este curso ha sido diseñado para estudiantes que están en el nivel avanzado y demuestran gran independencia en desarrollar las habilidades académicas lingüísticas y están cerca de alcanzar las exigencias lingüísticas necesarias para demostrar dominio del inglés en diversos contextos o entornos académicos. Es para estudiantes que están en el nivel de Expansión de inglés como nuevo idioma pero que todavía necesitan práctica en la lectura y la escritura en inglés. Los estudiantes del nivel en Expansión participan en un curso de inglés regular con la asistencia del meastro(a) de ENL: ELA/ENL co-integrado.

Pre-Requisitos: Tener Competencia limitada en el inglés, según los resultados del NYSITELL o del NYSESLAT

Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, una libreta satisfactoria y una carpeta de tareas.

Español para los estudiantes de habla hispana (G) - CRS 245 [Créditos 1.0]

Este curso es diseñado para capitalizar la fluidez que el estudiante ya logrado. El énfasis es en aumentar el vocabulario y refinar el uso correcto del español. Lo importante de este curso es mejorar las habilidades de lectura y de redacción con énfasis en la gramática. El estudiante también llegará a entender las contribuciones Latinas en la civilización mundial.

Pre-Requisitos: El estudiante debe hablar el español como su primer idioma.

Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, un cuaderno satisfactorio, proyecto cultural, examen Checkpoint B.

Español para los estudiantes de habla hispana (L) - CRS 246 [Créditos 1.0]

Este curso es diseñado para capitalizar la fluidez que los estudiantes ya lo logrado. El énfasis es de aumentar el vocabulario y refinar el uso correcto del español. Lo importante de este curso es mejorar las habilidades de lectura y de redacción con énfasis en la literatura. El estudiante también llegará a entender las contribuciones Latinas en la civilización mundial.

Requisitos para el curso: Participación activa en la clase, notas satisfactorias en todas asignaciones y pruebas, un cuaderno satisfactorio, proyecto cultural, examen Checkpoint B.

EDUCACIÓN BILINGÜE
Departamento de Estudios Sociales

Historia Global y Geografía I Regente (9) - CRSO 192B [Créditos 1.0]

Este curso se ofrece en NFA Main - Este curso se ofrece en NFA Main: El currículo de Historia Global y Geografía se ofrece en un programa de dos anos (Grados 9 y 10) basado en los cinco estándares de aprendizaje de Estudios Sociales del Estado Nueva York. Este programa esta diseñado alrededor de ocho unidades históricas de temas básicos que suceden a través del tiempo. Este currículo le provee al estudiante la oportunidad de explorar el desarrollo de los sistemas políticos alrededor del mundo, y analizar el papel que desempeñan los individuos y grupos durante varios períodos importantes de tiempo y puntos claves en la historia global.

Pre-requisitos: Ninguno

Requisitos del curso: Según el plan de estudio del curso

Estudios Globales II Regente (10) - CRS 102B [Créditos 1.0]

Este curso se ofrece en NFA Main: Este curso es la continuación del curso de Estudios Globales I. El curso incorpora enseñanzas de las varias disciplinas de estudios sociales para entender varias culturas y sus sistemas de valores. El énfasis del curso es en investigar el desarrollo cultural y los cambios sociales en la historia global. Los requisitos son parecidos a los del curso de honores con mayor énfasis en el uso de guias de estudio. La prueba de Regentes del estado será la evaluación final. Este curso es ofrecido en español e inglés.

Pre-requisitos: Haber completado el curso de Estudios Globales I

Requisitos del curso: Según el plan de estudio del curso

Historia de los Estados Unidos y su Gobierno (11) - CRS 112B [Créditos 1.0]

Este curso se ofrece en NFA Main: Este es un curso sobre la historia de los Estados Unidos. Este curso incluirá un examen cronológico de los Estados Unidos en general, pero el énfasis está en los Estados Unidos como nación industrial – emergente y completamente desarrollada. Temas constitucionales y legales serán explorados a fondo, al igual que los problemas de una sociedad industrial y dinámica en un mundo complejo, orientada por la tecnología. La prueba de Regentes será la evaluación final para este curso. Este curso es ofrecido en español e inglés.

Pre-requisitos: Haber aprobado el curso de Estudios Globales.

Requisitos del curso: Según el plan de estudio del curso

Economía (12) - CRS 138B [Créditos 0.5]

Este curso se ofrece en NFA Main: Este se concentra en los conceptos básicos y principios de la economía, los elementos principales de los sistemas económicos y el rol de los varios componentes de esos sistemas, incluyendo el consumidor, empresas, el trabajador, agricultura y el gobierno. El énfasis es en los Estados Unidos, pero se la dará énfasis a la economía global y otros sistemas económicos. Se estudiará el proceso de decisiones económicas en todos los niveles durante el curso. Este curso es ofrecido en español e inglés.

Pre-Requisitos: Haber aprobado los cursos requeridos de Estudios Sociales.

Requisitos del curso: Según el plan de estudio del curso

Participación en el Gobierno (Regentes) 12 - CRS 141B [Créditos 0.5]

Este curso se ofrece en NFA Main: Este curso requisito, acentuará la interacción entre los ciudadanos y el gobierno a todos los niveles: local, estatal y federal. El curso fomentará en los estudiantes conocimiento para participar en el proceso democrático. Los estudiantes de este curso tendrán que hacer diez horas de servicio comunitario. Este curso es ofrecido en español e inglés.

Pre-Requisitos: Haber aprobado los cursos requeridos de Estudios Sociales.

Requisitos del Curso: Según el plan de estudio del curso

Departamento de Matemáticas

Algebra 1-A - CRS 313 [Crédito 1.0]

Este curso se ofrece en NFA Main - Los estudiantes seguirán el currículo común NYS álgebra 1. Este curso es el primer año de un curso de dos años de estudio para completar álgebra 1. Este primer año cubre habilidades fundacionales y encajar en el currículo común álgebra 1. Estudiantes que puntuación de nivel 1 en las evaluaciones de estado en matemáticas o han fallado las matemáticas de grado octavo se matricularán en este curso.

Pre-Requisitos: Nivel 1 en el estado de Nueva York matemáticas 8 evaluación o han fallado matemáticas de grado 8.

Requisitos del curso: Deben completados todas las pruebas, cuestionarios, tareas y examen final local

Algebra 1-B - CRS 316 [Crédito 1.0]

Este curso se ofrece en NFA Main: Los estudiantes seguirán el currículo común NYS álgebra 1. Este curso es el segundo año de un curso de dos años de estudio para completar álgebra 1. Los estudiantes matriculados en este curso tendrá el examen álgebra 1 común central en junio. Este segundo año abarca habilidades fundamentales enraizadas en el currículo común álgebra 1 al completar los requisitos curriculares para tomar el examen de los regentes en junio.

Pre-Requisitos: Realización de álgebra 1-A

Requisitos del curso: Se deben completar todas las pruebas, cuestionarios, tareas y examen de Regents

Geometría – NR - CRS 333 [Crédito 1.0]

Este curso se ofrece en NFA Main - Este curso se ofrece a los estudiantes que han completado con éxito el álgebra 1 y el examen de regentes central común de álgebra 1 y que desean obtener un crédito de matemáticas adicionales exclusivos de los rigores de las pruebas analíticas, formales. El curso analiza la teoría de conjuntos y normas con las aplicaciones del segmento y ángulo de congruencia. Incluirá una breve exposición a métodos de la prueba de congruencia de triángulo. Los estudiantes trabajarán con reglas que involucran triángulos, líneas paralelas, cuadriláteros, polígonos regulares, círculos, trigonometría del triángulo rectángulo básico, semejanza y área.

Pre-Requisitos: Realización de NYS Algebra I Curso de núcleo común y examen de los regentes.

Requisitos del curso: Deben completarse todas las pruebas, cuestionarios, tareas y examen final local.

Modelos en Matematicas - CRS 3602B [Crédito: 1.0]

Este curso se ofrece en NFA Main: - Este curso esta diseñado para aquellos estudiantes que necesitan un tercer curso de matemáticas para cumplir con los requisitos del estado de Nueva York para graduación. Los temas incluyen aplicaciones en la vida real de funciones lineales, variación, sistemas de ecuaciones, matrices, y cuadráticas, funciones exponenciales y sinusoidales. También se explorarán las estadísticas y predicciones.

Pre-Requisitos: Haber aprobado Algebra y el examen de Regentes de Algebra Integrada y un curso adicional de matemáticas.

Requisitos del curso: Tomar todas las pruebas, completar todas las tareas y asignaciones.

Departamento de Ciencia

Biología (10, 11, 12) - CRS 502B [Créditos 1.0]

Este curso se ofrece en NFA Main - Los estudiantes comprenderán y aplicaran conceptos, principios, y teorías científicas relacionadas al ambiente físico. La meta principal de este curso es que los estudiantes comprendan la asociación entre el hombre y otros seres en el planeta. También los estudiantes comprenderán como y por qué somos iguales y diferentes a otros seres; comprenderán los sistemas del ser humano y varios animales; y comprenderán como los planetas y los animales se influyen mutuamente. Los estudiantes aprenderán a explicar, analizar e interpretar procesos y fenómenos biológicos.

Tópicos: Unidad y diversidad entre los seres vivos; mantenimiento de seres vivientes; química de seres vivientes, fisiología humana, reproducción y desarrollo; genéticas, ecología y evolución. El curso se reúne diariamente, con laboratorio, un día sí, otro no

Pre-requisitos: Estudiantes han de haber tomado Álgebra integrada o estar tomando ese curso a la misma vez.

Requisitos del curso: Haber cumplido con todos los laboratorios, pruebas y demostrar las destrezas necesarias para completar los laboratorios. Examen de los Regentes.

Ciencias de la Tierra (10, 11, 12) - CRS 532B [Créditos 1.0]

Este curso se ofrece en NFA Main Este curso es un programa centralizado en el laboratorio involucrando pequeños grupos de la interpretación de datos usando el método científico. Las áreas de estudio incluyen la Geología (el estudio de la Tierra-porque y como cambia), Meteorología (los cambios atmosféricos), Astronomía (el estudio de los cambios del cielo.) Este sujeto está diseñado para los estudiantes que van a entrar a la universidad.

El curso se reúne diariamente, con laboratorio, un día sí, otro no

Pre-requisitos: Es esencial que cada estudiante pase ciencias de escuela intermedia antes de tomar el examen Regente de Ciencias de la Tierra. Deben de haber completado el examen Regente de Biología y Álgebra integrada.

Requisitos del Curso: Haber completado 1200 minutos de trabajo de laboratorio por escrito del examen Regente.

Air Force Junior Reserve Office Training Corps

The fundamental purpose of Air Force Junior Reserve Officer Training Corps (AFJROTC) is to build citizens of character dedicated to serving their nation and community. The program is governed by the U.S. Air Force, and the citizenship training is conducted under the framework of an aerospace science program designed for high school students. It will acquaint students with the Air Force and aerospace environment, promote leadership skills, develop communications skills and encourage physical fitness.

The curriculum is divided into a four-year program, with students earning one academic credit for each year of JROTC they complete. There is no minimum number of years a student must remain in JROTC, but motivated students gain rank and increased responsibility with each additional year, so the students that remain the longest get the most benefit. (Note: AFJROTC is not a military recruitment program and there is no military obligation for participating. However, wear of the Air Force uniform, one day per week, is a mandatory part of the program.)

The AFJROTC program consists of the following three components: Aerospace Science, Leadership Education, and Wellness (i.e. physical training and healthy living).

Aerospace Science (AS). The academic portion of the program, and it consists of several courses listed below. It acquaints students with the aerospace environment and introduces them to aircraft and spacecraft technology, principles of flight, human requirements of flight, earth's atmosphere and astronomy. The history of aviation and the space program are also discussed. Other courses focus on global awareness or survival.

Leadership Education (LE). The leadership portion of the curriculum designed to develop leadership skills and acquaint students with the practical application of life skills. It emphasizes discipline, responsibility, leadership, followership, citizenship, customs and courtesies, cadet corps activities, study habits, time management, communication skills, and drill and ceremonies.
Wellness Program. This part of the program consists of participation in physical fitness activities, as well as training in first aid, health, and nutrition. The objective is to motivate cadets to lead healthy, active lifestyles.

The following are the specific aerospace and leadership courses offered at NFA and the projected schedule for the next four school years:

AS-100: A Journey into Aviation History
AS-200: Science of Flight: A Gateway to New Horizons
AS-220: Cultural Studies: (An Introduction to Global Awareness)
AS-300: Exploring Space: The High Frontier
AS-410: Survival: Survive and Return
LE-100: Traditions, Wellness and Foundations of Citizenship
LE-200: Communication, Awareness, and Leadership
LE-300: Life Skills and Career Opportunities
LE-400: Principles of Management
LE-500: Drill and Ceremonies

Special Education Department

The Special Education Department at the high school level is composed of a continuum of courses in the Least Restrictive Setting aimed at meeting the individualized educational plans of our students at Newburgh Free Academy. All placements in Special Education classes are made by the Committee on Special Education and are approved by the Board of Education.

Students should submit course requests to their guidance counselor based upon graduation credit needs and areas of interest. Special education settings are only available in core academic classes (English Math, Social Studies and Science). Sections of each course offering for each setting prescribed below will be based upon enrollment.

Resource Program 5:1

Students enrolled in the Resource Program take their courses in the general education setting and attend one period daily in the Resource Room, with a student to teacher ratio of 5:1. Students receive assistance as prescribed by their IEP and specific learning goals.

Integrated Co-Teaching

The Integrated Co-Teaching setting is available for all Regents courses and some elective courses in English, Math, Social Studies and Science. The Integrated Co-Taught setting is a general education setting with a mix of general and special education students and taught by two teachers, one certified content teacher and one certified special education teacher. The maximum special education student enrollment per section is 12. All students are expected to take the appropriate Regents examination aligned to each course. All Regents courses will be available in the Integrated Co-Taught setting; core elective offerings will be available based upon student enrollment.

15:1 Setting

The 15:1 setting has a student to teacher ratio of 15 special education students to one teacher. This setting is available for many English, Math, Social Studies and Science courses as prescribed by the Committee on Special Education. All students are expected to take the appropriate Regents examination aligned to each course.

Students enrolled in the 15:1 program are presented with the same curriculum as all Regents students. Students may be enrolled in a mix of general education, ICT and 15:1 as prescribed by the Committee on Special Education. Students who pass the required five Regents exams with a 65% or higher will be awarded a Regents diploma. A student who earns a score of 55 - 64 on the Regents exams are eligible for a Local High School diploma. In order to receive a Regents Diploma, students must meet the requirements established by NYS.

8:1:2 and 12:1:1 Career Ladder Program for Alternately Assessed Students not grading with a NYS High School Diploma

*** Only prescribed by the Committee on Special Education in alignment with the NYS Alternately Assessed Guidelines
Students prescribed for the Career Ladder Program through the Committee on Special Education will complete academic core course programming in addition to a Career Ladder Program preparing them for career readiness. Students in this program will graduate with a Commencement Credential and may be eligible for a CDOS credential through CTE course offerings and job embedded