

# **GUIDE TO PROGRAM PLANNING 2011 - 2012**

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## **Public Notification**

The Ichabod Crane Central School District hereby advises students, parents, employees and the general public that it offers employment and educational opportunities, including vocational education opportunities, without regard to sex, race, color, national origin or handicap. A complete copy of grievance procedures regarding discrimination may be obtained in any of the school offices.

In compliance with Section 504 of the Rehabilitation Act of 1973, Ichabod Crane offers assistance to students, parents (in relation to school activities for their child) and staff qualifying as having a handicapping condition as defined under Section 504. For further information or to make a referral for such assistance, contact the Title IX coordinator in the Central Office at 758-7575.

## **Introduction**

Ichabod Crane High School Provides a program of diverse academic and elective offerings that challenge students of all abilities. This guide provides course descriptions and explanations to help students develop their annual academic plan.

**P**lanning a meaningful high school program of study is an important task that must be done by every student with his/her parent(s). The choices of which courses to take each year must fit together into an overall plan. This plan should include all the courses required for a New York State Advanced Regents diploma, Regents diploma or Local diploma. The plan also should include courses of study that will prepare the student to enter college, to enter the job market or to pursue some other career path.

Before entering grade 9, students meet in small groups and individually with their counselor and parents to discuss high school graduation requirements and options for grade 9 courses. During grades 9, 10, and 11, students meet in groups and individually with their counselor to review and select courses for the next year.

Department chairpersons and/or teacher recommendations also are

used in determining the student's requested schedule. Parents are encouraged to discuss the student's program and will be provided with a written copy of the student's tentative program for the next academic year in sufficient time to request changes prior to the end of the school year. If a conflict in scheduling develops, students will be notified of this fact and will be provided with an opportunity to make alternative choices.

## **Changes in New York State Requirements**

### **New Standards for Curriculum and Assessment**

During the past decade, a new vision of curriculum, instruction and assessment has emerged in the state of New York. This vision is based on six key principles:

- All children can learn
- Focus on results
- Aim for mastery
- Provide the means
- Provide authority with accountability
- Reward success and remedy failure

This calls for children's educational entitlement to be defined in terms of content and performance standards (what students should come to know and be able to do), rather than processes (lists of prescribed activities or texts). Focusing on learning goals and standards has profound implications for the design of curriculum and assessment. These desired learning goals

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and standards have guided the development of more rigorous curriculum across seven curricular areas: Fine and Performing Arts; English Language Arts; Health/Family and Consumer Science/Physical Education; Mathematics/Science/Technology; Social Studies; Languages Other Than English; and

Career Development and Occupational Studies. Higher standards for students in New York have been developed and will be phased in over the next few years. Currently, the requirements for achieving an Ichabod Crane High School diploma are defined below.

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### Qualifications for Promotion

It is important to understand that a student in the High School simply does not pass from grade 9 to 10, rather on a course-to-course basis. A student's homeroom assignment is determined by the number of credits achieved each year. Credits required for promotion are as follows:

To advance to Grade 10 - 5 credits  
To advance to Grade 11 -10 credits  
To advance to Grade 12 -15 credits

## Ichabod Crane Graduation Requirements

### Course Requirements:

The **22** units required for graduation must include:

	<b>Regents Diploma</b>	<b>Advanced Regents Diploma</b>
English	4 units	4 units
Social Studies	4 units	4 units
Mathematics	3 units	3 units
Science	3 units	3 units
Music/Art*	1 unit	1 unit
Health Education	½ unit	½ unit
Physical Education	2 units	2 units
Second Language	2 units	3 units**

\*Music/Art requirement may be met through: Band, Chorale, Music Theory, Studio in Art, CAD/Design & Drawing for Production A and Architectural Drawing/Design & Drawing for Production B Clothing - Fashion and Design/Housing - Interior Design or Elements of Theatre/Theatrical Production/Theatre II.

\*\*Students acquiring 5 units in Occupational Education or the Arts may be exempt from the 3-unit

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requirement in a second language. Those students must have completed 2 units of study in a second language.

### Testing Requirements:

Students who plan to receive an **ADVANCED REGENTS DIPLOMA** must pass the following Regents exams with a 65 or above:

English Regents	Global History Regents	US History Regents
Algebra Regents	Geometry Regents	Trigonometry Regents
Foreign Language Regents*	Living Environment Regents	
Earth Science Regents <b>OR</b> Chemistry Regents <b>OR</b> Physics Regents		

\* Except for students earning a 5-unit sequence in Occupational Education or the Arts.

Students who plan to receive a **REGENTS DIPLOMA** must pass the following Regents exams with a 65 or above:

English Regents	Math Regents	Global Hist. Regents
U.S. Hist. Regents	Science Regents	

Students in the **Class of 2012 and beyond** must pass all 5 required Regents exams with a 65 or better. Other options for students with disabilities will be explored if necessary.

### January/June/August RCT and Regents Examinations

Ichabod Crane offers January, June and August Regents, Regents Competency Tests (RCT) and Proficiency examinations. If not being taken as part of a class, students are encouraged to register for examinations in the Guidance and Counseling Office well in advance of the testing period to ensure availability.

### Scheduling Timetable

The scheduling process for high school students begins in early February and runs through early April. Course selection meetings are held for each student, either in individual meetings or in some cases groups. During the course selection meeting, students choose appropriate courses for their four-year academic plan. The master schedule is completed in May, and schedules are sent to students thereafter. It is extremely important for the development of the Master Schedule that any changes in student course requests are given to the Guidance and Counseling Office in writing no later than May 1.

## **Withdrawing from a Course**

While it is expected that students will complete courses in which they choose to enroll, occasionally an instance arises where a course is dropped from a student's schedule. Courses will be listed on the student's permanent record/transcript as Drop Fail or Drop Pass after the teacher has closed their grade book for the first marking period of the course.

A student is able to drop a Full Year Course up to and including the last day of the Second Quarter. A student is able to drop a First Semester Course up to and including the last day of the First Quarter and for a Second Semester Course up to and including the last day of the Third Quarter. Students may see their School Guidance Counselor for the drop procedures.

## **Standardized Tests**

The following tests are available to Ichabod Crane High School Students:

- Armed Service Vocational Aptitude Battery, Grades 10,11,12
- National Merit Scholarship Qualifying Test/Preliminary Scholastic Aptitude Test (PSAT), Grade 11
- Preliminary-American College Testing Program (PLAN), Grade 10
- American College Testing Program (ACT)\*, Grades 11, 12
- Scholastic Aptitude Test (SAT I)\*, Grades 11, 12
- Scholastic Aptitude Test - Subject Tests (SAT II)\*, Grades 11, 12

- Interest Inventories (administered as requested), Grades 9 – 12
- Advanced Placement Tests (for students enrolled in appropriate courses)

*\*Testing locations available in Columbia County*

## **Student Average and Class Rank**

### **Student Average**

A student's average is calculated based upon all subjects he/she has taken during high school. Honors courses, advanced placement and college-level courses are weighted with a factor of 5 and Regents classes are weighted with a factor of 2 in computing student's *overall* average.

### **Student Class Rank**

The rank is computed on a 0 – 100 basis over seven semesters; three year graduates on a five semester basis. Five points are added to AP, honors and college level courses. Two points are added to Regents level courses. School level courses and optional electives are not weighted. All course final averages are unweighted. Only the overall average and rank are based on the weight system. The rank sent to colleges is cumulative for grades 9, 10 and 11, and final cumulative re-averaging and re-ranking is calculated following the first semester of grade 12.

## **Honor/High Honor Roll**

Honor rolls are calculated at the end of each marking period. All grades except science labs and AIS courses are counted toward the grade point average. To obtain the high honor roll, Students must earn an overall 90 average or better and to obtain the honor roll, students must earn an overall average of exactly 85 to 89.9.

## **Summer School**

### **General Guidelines**

To be eligible for a remedial summer school program, a student must have achieved a minimum grade point average of 50% in the course. A student who has not earned this average but who attended 50% of the course classes may be considered for summer school at the discretion of the High School administration.

Due to New York State regulations regarding summer school credit, the summer school final average will be calculated using a combination of the academic year average and the summer school average. ***The high school academic year average will count for 25% of the final summer school grade. The summer school average will count for 75% of the final summer school grade.*** It is very important that the student keep this in mind when considering the summer school option.

If a course is not offered at Ichabod Crane during the summer, a student may attend any New York State accredited summer school program. Permission of the Ichabod Crane High School principal is required to attend summer school elsewhere.

Summer Drivers Education Course is graded Pass/Fail and students do not earn an academic credit for the course.

## **Alternative Methods for Earning Credits**

### **Correspondence Courses**

It is the responsibility of the student to make all applications necessary for correspondence courses and to pay any required fees. The student should consult with the Guidance and Counseling Office before completing applications in order to insure that the school offering the correspondence course has been approved by the State Education Department. The student's application and rationale must then be approved by the administration and appropriate department chair. All final exams for correspondence courses must be administered by either the Guidance and Counseling staff or a staff member designated by the High School.

### **Independent Study**

If a student is interested in independent study, it is the responsibility of the student to secure an instructor on staff in the High School or a community mentor approved by the administration who will volunteer to supervise the independent study. The teacher/mentor must submit a detailed description of the content of the independent study along with a statement regarding evaluation procedures to be employed. Approval must be given by the administration and appropriate department chair before the course work begins unless extenuating circumstances can be demonstrated by the student/applicant.

**NOTE:** Only one (1) credit of either an independent study or a correspondence course will be allowed during a school year. A maximum of four (4) alternate courses may be applied toward the total required for graduation. Extenuating circumstances may be appealed to the administration.

### **Challenging a Course for Regents Credit**

A student may challenge a course for credit if the student achieves a score of at least 85% or its equivalent as determined by the Commissioner of Education on a state-developed or state-approved examination and the student passes an oral examination

**or**

the student successfully completes a special project(s) which demonstrates proficiency in the subject matter areas as determined by the principal and the student

attends school

**or**

the student received substantially equivalent instruction elsewhere, until the age of 16, in accordance with Section 3204(2) of the Education Law and pursuant to Sections 3204 and 3205 of the Education Law.

**NOTE:** A maximum of 6.5 units of credit may be applied toward the total required for graduation.

### **Advanced Placement**

These credits may be earned for courses as described in the Course Description section of this booklet.

### **Auditing Courses**

Auditing courses is allowable under specified circumstances, which can vary by department and is subject to prior approval by the department chair and administration. Please note that auditing consideration for courses given under the auspices of a college or university is subject to the rules of those institutions.

### **Early College Admission**

The provisions governing high school credit for college courses taken under dual enrollment are stated in Board of Education Policy 4334.1. Students who wish to participate in college-level courses must meet specific academic, grade level and course work requirements as set forth by the superintendent in conjunction with the High School

administration and the sponsoring college.

Students who choose and successfully complete this option may earn an Ichabod Crane diploma. Students participating in early admit programs must provide the high school with information concerning their academic progress in their college courses.

## **Enrichment Courses**

Upon request and proof of satisfactory completion, enrichment courses taken through other programs may be included as information on transcripts.

## **Home Instruction**

Homebound instruction is provided upon the request of a parent or guardian to Ichabod Crane High School students who are unable to participate in the regular school program due to illness or disciplinary suspension. If approved, tutoring is provided 10 hours each week. For students in grades 9 through 12 who are unable to participate in physical education due to a physical disability, packets of work have been developed by the department for these students to complete. Tutors should request packets from physical education teachers. Packets should be returned to the teachers on a weekly basis for correction and credit.

The responsibilities of the student and his or her parent or guardian are as follows:

1. Parents must cooperate with the home tutor regarding the establishment of a mutually agreeable home tutoring schedule. It is the responsibility of the parent and student to assure the home tutor that the student will be present and ready to begin instruction according to the scheduled session. A distraction-free area conducive to instruction should be provided.
2. Students must take an active role in the home tutoring instructional program. This means paying attention to the tutor, taking notes when requested and completing all work assigned.
3. The attitude and behavior of the student will be evaluated by the home tutor. The student is responsible for his/her actions and efforts at all times during the instructional process.
4. Students are reminded that school policy necessitates daily attendance in the regular school day program as a prerequisite to attendance at extracurricular activities.
5. Any problems occurring with the home tutoring process should first be discussed with the guidance counselor. If problems continue to arise, appropriate school involvement would occur.

## Special Education

Students who have been identified by the Committee on Special Education (CSE) have the opportunity to enroll in any classes offered at the high school level. A full compendium of services are available to assist these students as specified on their Individual Education Plans (IEP). Modified collaborative classes taught by a content area teacher and a special education teacher are usually offered in English 9, 10, 11, with consultant at grade 12; Global Studies 9, 10; U.S. History; Earth Science and Biology; Algebra I,

Algebra and Geometry and other classes as needed. Resource room, Curriculum support, related services, consultant teachers and aide support are also available. Reading and Writing Resource is now a credit bearing class. Special Education students have the opportunity to earn Advanced, Regents, Local or IEP diplomas. Each student is encouraged to meet his or her highest potential. Questions concerning the special education process in the district should be directed to the Office of Special Education (758-7576).

## COURSE DESCRIPTIONS

### Key to denote course designation:

**AP = Advanced Placement**

**H = Honors**

**R = Regents;**

**RS = Regents Skills**

## ART

### **Studio A and Studio B**

*(½ credit each)*

These two courses both offer the student a wide variety of art experiences centered around the actual production of works of art. Projects explore the elements and principles of design using a wide variety of art materials, both two and three-dimensional. Vocabulary and art history related to each project is stressed. Both Studio A and Studio B need to be completed as a prerequisite for all upper level art classes. Projects from both classes are specifically designed to give students an experience in each area offered: Painting and Drawing, Sculpture, Illustration, Ceramics, Mixed Media and Photography. Studio A and Studio B are not sequential, and either can be taken independently for ½ credit, but students will need to complete both courses in order to receive the full credit in art required for high school graduation.

### **Ceramics I**

*(1 credit)*

*Prerequisite: Studio A & Studio B*

This course is an introduction to clay

and glaze through various building and decoration techniques. The sculptural quality of clay is explored through lessons inspired by ceramics from around the world. Projects are organized around the use of hand-building techniques such as pinch, coil, slab, and drape molding to create both decorative and functional ceramics. The potter's wheel may also be used during class after initial instruction after school to learn the basic skills.

### **Sculpture I**

*(1 credit)*

*Prerequisite: Studio A and Studio B*

This course explores three-dimensional design using a variety of media and techniques and offers a multilevel experience in each sculpture category: relief, in-the-round, and mobile. Art history pertaining to each project is discussed as students experiment with a variety of sculptural styles, including both representational and non-objective work. Sculpture building methods include addition, subtraction, casting, and modeling. Media explored will include paper, cardboard, foam-core, plaster, plexi-glass, clay, mesh, metal foil, wire, reed, wood, found objects, recycled objects and natural objects.

## **Advanced Ceramics and Sculpture**

*(1 credit)*

*Prerequisite: Either Ceramics I or Sculpture I*

This course builds further on the experiences offered in Ceramics I and Sculpture I. A variety of media and technique choices will be available to students as they explore the application of more complex design problems in both relief and sculpture in-the-round. Focus will be placed on individual idea and technical development using the expressive potential of sculptural forms and media. Students may also use class time to develop their skills on the potter's wheel. All artwork created in this class can be used for your art portfolio.

## **Drawing & Painting I**

*(1 credit)*

*Prerequisite: Studio in Art*

Designed to enhance drawing skills, Drawing & Painting is a necessary course for students who are preparing portfolios for college, but is also for the student who would like to explore drawing and painting further. Projects are focused on developing observation skills and technique. Charcoal, pencil, ink, acrylics and other media will be introduced. Art history is a strong component to each project and will contribute to the development of each student's personal style. Learning to discuss artwork in a positive, critical way will be stressed.

## **Illustration I**

*(1 credit)*

*Prerequisite: Studio A and Studio B*

Illustration is the art of communicating in visual form. Different styles and techniques of illustration and illustrators are explored using a variety of media including computer graphics to provide students with a wide range of possibilities for expressing their concepts. Both two-dimensional and three-dimensional design are covered in the course with a strong emphasis on visual literacy and improving drawing skills. Students participate in "real world" assignments, exposing them to career opportunities in the field of illustration as a commercial art form. Students will also learn to assess their own work as well as the work of others in a positive way.

## **Advanced Drawing & Painting**

*(1 credit)*

*Prerequisite: Drawing and Painting I or Illustration*

**Are you a highly motivated art student who would like to dive deep into drawing and painting? *This is the class for you!*** Assignments will offer higher level challenges and exposure to traditions in art history. Students' personal style will become more refined, along with their observational skills. Students who are preparing portfolios for college will find assignments in this class as appropriate pieces for including in the portfolio, as well as excellent training for art school. Unique approaches to drawing the ordinary will inspire students to create sophisticated works of art.

### **Photography as Art**

*(½ credit)*

*Prerequisite: Studio A & Studio B*

Photography becomes a tool for creative expression in this ½ year course, focusing on artistic form and attention to light. Understanding composition and concept will be emphasized. This course is primarily an art class, using photography as part of the art making process along with drawing and sculpture. Students will experiment with different types of cameras and processes, including color, black & white and digital. Alternative process photography will be explored and students will be encouraged to create artworks incorporating both fine art and technology. Famous photographers will be an inspiration to students as form, lighting techniques, and style are studied.

This course will introduce students to new approaches to photography as an art medium and aid in developing skills for working independently.

### **Mixed Media**

*(1/2 credit)*

*Prerequisite: Studio A & Studio B*

Inventing... experimenting... risk-taking... Mixed Media is a half-year advanced level course for the serious art student. Projects are challenging and require strong conceptual thinking to make unique art. A variety of traditional and non-traditional materials will be used. Assignments encourage independent thinking in an art studio atmosphere. New techniques for traditional materials

and ways to combine them will be encouraged. This course will cover new topics in painting, drawing, collage, printmaking, and sculpture. Imagination required!

### **Photoshop**

*(½ credit)*

*Prerequisite: Studio A & Studio B*

Photoshop is one of the most in demand tools for professional artists, designers, and photographers today! In this half-year course, students will learn the many uses of Photoshop, including photo editing and manipulation, fine art and illustration, and mixed media pieces. Students will use photography, drawing and sculpture along with the computer to create their digital artworks. "Real world" assignments will explore the possible uses of Photoshop in art, design and advertising industries.

### **5 Unit Sequence in Art**

- Studio A and Studio B (required)
- 4 additional units – choose from:  
Drawing and Painting I  
Illustration I  
Advanced Drawing & Painting  
Sculpture I  
Ceramics I  
Advanced Ceramics and Sculpture  
Photography as Art (1/2 unit)  
Mixed Media (1/2 unit)  
Photoshop (1/2 unit)

## BUSINESS COURSES

These courses fulfill the H.S. Computer Requirement. Courses are open to all high school students as noted.

### ***Business Computer Applications/Microsoft Office***

*(½ credit) \* Based upon enrollment.  
Grades 9-12*

Students will become acquainted with applications in word processing, data base management, spreadsheets, and graphic presentation software using Microsoft Word, Excel, Access and Power Point.

### ***Desktop Publishing***

*(½ credit) \* Based upon enrollment.  
Prerequisite: BCA  
Grades 10 – 12*

This is a comprehensive publishing course using text frames, table frames, word art, working with images, graphic accents, background pages and special features to create applications including brochures, advertisements, flyers, letterheads, and other common business forms.

### ***Introduction to Programming***

*(½ credit) \* Based upon enrollment.  
Grades 10 – 12 (Visual Basic 6)*

This course will work with the fundamental elements of programming using Microsoft Visual Basic 6 programming language. This course builds to intermediate levels of

programming with students writing their own code.

### ***Web Design using HTML***

*(½ credit) \* Based upon enrollment.  
Grades 10 – 12*

This course uses HTML to create web pages. Students will learn all tags needed to create links, images, ordered and unordered lists, tables, forms, marquees, background and link colors, frames and image maps.

### ***Web Design Applications***

*(½ credit) \* Based upon enrollment.  
Prerequisite: Minimum grade of 80 in Web Design using HTML is suggested.  
Grades 10-12*

Students will be using their skills to create web pages according to specifications of district personnel and periodically updating their web pages. Also, students will be able to insert animation into their web pages, use cascading style sheets, insert mouse over effects, and integrate digital video and photography in their web pages.

### ***Accounting I***

*(½ credit) \* Based upon enrollment.  
Grades 10 – 12*

Designed to help students develop occupational competencies in bookkeeping, this course is strongly recommended for students pursuing post-secondary study in accounting. Course content encompasses the accounting cycle and includes hands-on computer applications using Excel spreadsheets.

### **Accounting II**

(½ credit) \* Based upon enrollment.  
Prerequisite: Accounting I  
Grades 10 – 12

This course is a continuation of Accounting I and focuses on Accounting for a merchandising business organized as a partnership. Topics covered include: journalizing purchases and cash payments; journalizing sales and cash receipts; posting to general and subsidiary ledgers; payroll; and will be used for hands-on computer applications.

### **Sequence in Business**

Required:

- Career and Financial Mgmt.
- Business Computer Applications
- Web Design
- Intro to Programming
- Accounting I
- Accounting II
- Web Page Applications
- Desktop Publishing

## **ENGLISH**

All students are required to pass the Regents Exam in English which is usually taken during the junior year. All courses will accentuate the skills necessary to succeed in academics and in the workplace.

### **English 9H**

(1 credit)

An English enrichment program geared to students with above-average reading and writing abilities

and with strong motivation for independent study and creative thinking. An average of 85% and/or a recommendation from the previous year's teacher is suggested. A selection of literature from different genres is included with Romeo and Juliet as the choice of Shakespearean play.

### **English 9R**

(1 credit)

An English program designed for the average student who plans to continue his/her education past high school. Emphasis is on strengthening reading, writing and vocabulary skills. A selection of literature from different genres is included with Romeo and Juliet as the choice of Shakespearean play.

### **English 9RS**

(1 credit)

This course is for students who require skill reinforcement, especially in reading and writing. Novels, short stories, poetry, and plays, including Romeo and Juliet, will be read in class. Students will be expected to strengthen research skills. In addition to reinforcing reading and writing skills, students will receive vocabulary enrichment.

### **English 10H**

(1 credit)

Students will be challenged to develop their writing, reading and speaking skills. A fully-developed, literature-based research paper, as well as numerous personal journals

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and longer analytical essays, will be written in addition to personally-generated poetry. Oral presentations will include book reports on drama, novels and nonfiction. A Tale of Two Cities and either Julius Caesar or The Merchant of Venice are important examples of literature which will be read and discussed. Vocabulary, spelling and grammar are integral parts of the course. An average of 85% is recommended.

### **English 10R**

*(1 credit)*

In this course, students increase proficiency in reading and writing of expository paragraphs, essays, and creative writing pieces. Several novels and full-length plays will be read, along with either Julius Caesar, The Merchant of Venice or Much Ado About Nothing. Vocabulary, spelling and grammar are integral parts of the course.

### **English 10RS**

*(1 credit)*

English 10RS is a course designed to aid students who require skill reinforcement. Novels, short stories, plays and poetry will be read in class. Students will continue to develop vocabulary, reading and writing skills.

### **English 11AP/H**

*(1 credit)*

This Honors class is designed for the advanced student to meet the AP English Literature and Composition course requirements. Students will engage in intensive analytical reading

of a wide variety of noteworthy literature, including a broad spectrum of poetry, short stories, novels, essays, and Shakespeare's Macbeth. Students will develop college level essay and composition skills. An average of 85% or a recommendation from the previous year's teacher is suggested.

### **English 11R**

*(1 credit)*

This course is geared primarily toward the average student. It will focus mainly on American literature, such as To Kill a Mockingbird and Of Mice and Men, and also will include the reading of Macbeth as the primary Shakespearean play. Students will write personal journals, and they will do an extended research project. Continued instruction in vocabulary, spelling and usage also will be included. Students will be expected to take the English Regents this year.

### **English 11RS**

*(1 credit)*

This course is designed for students who are working on continuing development of basic English skills. Short stories, novels, drama and poetry will also be studied. Students will be expected to pass the English Regents exam in the junior year.

## **GRADE 12 English COURSES**

***All seniors are required to complete one full credit of the following:***

1. Humanities I & Humanities II OR

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2. English 12R I and English 12R II  
OR  
3. EN101 and English 12R I

### **Humanities I & II**

*(½ credit each)*

*Prerequisite for Humanities II is Humanities I*

This course requires maintenance of 85% in English 11 and department recommendation prior to election by the student. Taught by a team of art, music and English teachers, this is an honors course for superior students that draws on the imaginative literature of the Western World and involves critical study of the different literature genres expressing the recurrent concerns of mankind. High levels of verbal competence, writing skill and sustained, independent inquiry are required. Students may choose to take the AP test in Literature and Composition in May.

### **English 12R I**

*(½ credit)*

This half-year course takes a thematic approach to literature. Themes such as personal responsibility, self-deception, fate and free will, and good and evil will be covered. The study of Hamlet will be part of this course.

### **English 12R II**

*(½ credit)*

English 12R II will cover the thematic units of human dignity, choice and consequence, social responsibility, and man and his environment. A literary research paper must be

completed successfully by each student.

### **EN101 Composition (CGCC) (Fall)**

*(1/2 credit) \* Based upon enrollment.*

An introductory course emphasizing the process and patterns of writing college-level expository prose. Included are reading assignments, extensive practice in writing clear, well-developed grammatically correct essays, a research paper and an oral presentation. This course is taught in conjunction with Columbia Greene Community College and can be taken in lieu of English 12R II. College credit may be received upon successful completion and co-registration with CGCC. (3 sem. hrs)

## **ENGLISH ELECTIVES**

English electives are open to all students in grades 10 – 12. Underclassmen will be considered with department and/or administrative approval. These courses may be used to build a sequence, but may not be used to build a four-credit requirement in English.

### **Oral Interpretation**

*(½ credit) \* Based upon enrollment.*

This course focuses on English as the spoken word. Speaking and listening skills will be sharpened through interpretive readings, expository and persuasive speaking, and impromptu drama. Interpersonal communication skills are stressed.

### **Creative Writing**

*(½ credit) \*Based upon enrollment.*

This course is built upon the premise that we write best about that which we have experienced. Most writing assignments are given with the intention of exploring the self through journal writing, prose and poetry. Final assessment will be based on the compilation of a student portfolio.

### **Journalism**

*(½ credit) \*Based upon enrollment.*

This course will cover basic theories of communication and journalism. Students will be taught how to cover, write and edit stories. Productions will include exercises in still storyboards, video commercials, and news team mockups.

## **FAMILY AND CONSUMER SCIENCE**

Family and Consumer Science courses are open to any student wishing to take an occupational sequence or for students who wish to take the courses as independent electives.

*\*These courses are subject to teacher availability and may not be offered in 2010-2011.*

### **Food and Nutrition**

*(½ credit)  
Grades 9 – 12*

This introductory foods course focuses on nutrition awareness and

food preparation skills. Students will learn basic cooking techniques as they prepare foods from all levels of the food pyramid. Foods such as quick breads, yeast breads, vegetables, pasta and cheese dishes are prepared and sampled in class. Other topics covered are kitchen safety and sanitation, understanding food labels, meal planning and other food-related careers.

### **Gourmet Foods**

*(½ credit)  
Prerequisite: Food and Nutrition  
Grades 10 – 12*

Students will learn advanced food preparation and presentation techniques in this course. Topics covered are cooking with herbs and spices, egg and poultry cooking, soups and salads and specialty baking.

### **Cultural Foods**

*(½ credit) Grades 10 - 12*

In this course, students will explore a variety of cultural specific foods and preparation techniques. Both regional and international foods will be prepared.

### **Human Development**

*(½ credit)  
Grades 9 – 12*

This course focuses on the adolescence stage of development. Students will investigate and practice communication styles among peers and family members. Also discussed are contemporary issues related to

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adolescent development, as well as the study of young children and adults. Career exploration also is covered. *This course is required for all home economic sequences.*

### **Child Development I**

*(½ credit)*

*Grades 9-12*

In this course, students will have the opportunity to interact with younger children when they visit the Primary School each week. Students will be responsible for planning activities with the children that relate to art, science or food, as well as story telling and games. Course topics include children's intellectual, social, physical and emotional development. This course prepares students to understand and better deal with children at home and in the workplace.

### **Child Development II**

*(½ credit)*

*Prerequisite: Child Development I*

*Grades 11 – 12*

This course, which is a continuation of Child Development I, provides students with hands-on activities in the study of child development through the ages of preschool to second grade. Topics covered include children's stories, science and math for all children, including those with special needs. Students will have the opportunity to work with children at the grade level of their choice in the Primary School.

### **Independent Living**

*(½ credit)*

*Grades 11 – 12*

This practical course prepares students for life skills such as survival cooking, care of clothing, selecting housing, and managing financial resources. This is an excellent course for students who will be living on their own or attending college.

### **Clothing - Fashion and Design**

*(½ credit)*

*Grades 9 – 12*

This course introduces students to the world of clothing design. Fashions of the past, planning a wardrobe and personal clothing styles will be discussed. Students also will learn clothing construction techniques through a simple clothing project.

This course, if combined with Housing and Environment, may be used to fulfill the art/music requirement for a student pursuing a sequence in occupational education.

### **Housing - Interior Design**

*(½ credit)*

*Grades 9 – 12*

In this course, students will study environmental and historic factors that influence architectural styles, including past, present and future housing designs. Students will accomplish hands-on activities such as manipulating floor plans, furniture arrangements and color schemes.

This course, if combined with Clothing Fashion and Design, may be used to fulfill the art/music requirement for a student pursuing a sequence in occupational education.

## **LOTE - Languages Other Than English**

### **Regents Level I: French/Spanish**

*(1 credit)*

Level I Regents, open to students just beginning in the language, is an introductory course in speaking, listening, reading and writing. Some of the topics covered in this level are biographical information, the home, family, community, meals, health, leisure activities and shopping. Emphasis will be on speaking and listening skills and the acquisition of enough basic grammar to progress to Level II Regents. New York State mandates a State Proficiency Examination be administered at the end of Level 1 in the eighth grade.

### **Regents Level II: French/Spanish**

*(1 credit)*

*Prerequisite: Level I*

Level II Regents is a continuation of the program begun in Level I Regents. At this level, students will further develop speaking and listening skills, and increase their reading and writing in the specified language. Topics covered will be those of Level I, but a more advanced proficiency will be required. This course is open to students who have completed Regents Level I either at the Middle School or High School.

### **Regents Level III: French/Spanish**

*(1 credit)*

*Prerequisite: Level II*

Emphasis will be on preparation for the New York State Comprehensive Regents Examination. Students will read edited authentic selections and improve their listening, speaking and writing skills. Students must pass a LOTE regents in order to earn an Advanced Regents diploma.

### **Regents Level IV: French/Spanish-SUNY**

*(1 credit)*

*Prerequisite: Level III and 85% of the Comprehensive Regents Exam*

Level IV is a college course offered through the University at Albany. Upon successful completion of this course, students may receive four university credits transferable to many colleges and universities in the United States. Emphasis will be on communication - listening, speaking and writing, and the reading of authentic materials in the language studied.

### **Regents Level V: French/Spanish-SUNY**

*(1 credit)- Prerequisite: Level IV*

If there is student enrollment, Level V, sequel to Level IV, will be offered. Upon successful completion of this course, offered through the University at Albany, students may receive an additional four university credits. Emphasis in this course will be on listening, speaking and writing communication and the study of authentic literature.

## MATHEMATICS

Our sequential mathematics program provides a solid core of courses. Our diverse course offerings provide opportunities for all our students. The Mathematics Department strongly recommends that students planning to attend college complete a program which includes Algebra, Geometry and Trigonometry plus an elective. All students are encouraged to plan a thorough mathematics program to maximize their options for the future. While planning, students should keep in mind that they need three credits of mathematics to graduate as well as a passing grade on one mathematics regents exam.

### ***Algebra I***

*(1 credit)*

This algebra-based course is designed to assist students in mastering many topics in algebra and to introduce problem solving strategies to students to help them prepare for Algebra and the Algebra regents. A strong math foundation is important for success in Algebra and upper-level math courses, as well as in specific topics in science and technology. A departmental exam is given in June. (Students would take Algebra for their second unit of mathematics).

### ***Algebra H***

*(1 credit)*

*Prerequisite: An average of A or higher in Math 8 is recommended.*

Algebra Honors is designed for students with strong skills in

mathematics who plan to enroll in upper level math courses later in their high school career. This class will provide more challenging and in depth study of the topics covered in Algebra R; it will also provide a solid base in preparation for the required state assessments. Students will take the Algebra regents in June.

### ***Algebra R***

*(1 credit)*

This course meets every other school day for a block. In addition to algebra topics, students will study problem solving, probability, statistics, trigonometry and graphing. Students will take the Algebra regents in June.

### ***Algebra B***

*(1 credit)*

This course is designed for students needing more time on task to reinforce, practice, and master concepts. This course meets every school day...one day for a block (84 minutes) and the next day for a period (42 minutes). The extended time for this class provides increased student-teacher contact. In addition to algebra topics, students will study problem solving, probability, statistics, trigonometry and graphing. Students will take the Algebra regents in June.

### ***Geometry H***

*(1 credit)*

*Recommended: a minimum average of 85 in Algebra or a 90 in Algebra R.*

This course provides a more challenging and in depth study of the

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topics covered in Geometry R. The emphasis in the course is on proof. The three types of proofs to be studied in depth are geometric, analytical, and transformational. The course is rigorous and vocabulary will be very important. Students will take the Geometry regents in June.

### **Geometry R**

*(1 credit)*

*Prerequisite: Algebra*

*Recommended: a minimum average of 78 in Algebra R.*

The emphasis in the course is on proofs. The three types of proofs to be studied in depth are geometric, analytical, and transformational. The course is rigorous and vocabulary will be very important. Students will take the Geometry regents in June.

### **Geometry B**

*(1 credit)*

*Prerequisite: Algebra*

This course is designed for students needing more time on task to reinforce, practice, and master concepts. The emphasis in the course will be on Geometric concepts with integration of algebra. The course will concentrate on informal Geometry and introduce basic geometric, analytical, and transformational proofs. The course is rigorous and vocabulary will be very important. Students will take the Geometry regents in June.

### **Applied Math**

*(1 credit)*

*Prerequisite: 2 credits of mathematics and a passing score on the Algebra Regents exam*

In this course situational problems are

solved on a regular basis. This program involves the use of videos, hands-on lab activities and in-depth problem-solving exercises that invite discovery of mathematical concepts. This course encourages student participation and cooperative learning. A departmental exam is given in June.

### **Intermediate Algebra**

*(1 credit)*

*Prerequisite: Geometry*

This course is designed to meet the needs of students desiring to improve, to maintain, and to extend their math background, especially in algebra. If you struggled in Algebra and/or Geometry or if you attended summer school for math, consider this course. Trigonometric functions and graphing are studied as well as problems emphasizing number sense and number systems. Time is available to review topics in arithmetic, elementary algebra, and geometry as needed. The course should be helpful to students planning a future in technology or science, as well as preparation for college math. A departmental exam is given in June.

### **Trigonometry H**

*(1 credit)*

*Prerequisite: Geometry*

*Recommended: a minimum average of 85 in Geometry H or a minimum average of 90 in Geometry R; teacher recommendation.*

This course provides a more challenging and in depth study of the topics covered in Trigonometry R. Students take the Trig. regents exam in June. After this course students may take Statistics or Pre-Calculus H.

## **Trigonometry R**

(1 credit)

*Prerequisite: Geometry or Intermediate Algebra and a passing score on the Algebra Regents exam*

*Recommended: a minimum average of 75 in Geometry R or a minimum average of 80 in Geometry B*

This rigorous course covers the areas of algebra, geometry, probability, statistics, trigonometry, logarithms, functions and transformational geometry. A TI 83+ or TI 84+ calculator will be used regularly and it is highly recommended that students have a graphing calculator of their own to use at home. Students take the Trig regents exam in June.

## **College Algebra MA110-31 @ CGCC**

(1 credit)

*Prerequisite: 3 credits of high school math and teacher recommendation*

This course is designed for students who are seeking a 4<sup>th</sup> credit in Math. The course is designed to challenge the student while providing the student an opportunity to earn college credit while at Ichabod Crane. Topics to be covered include linear, quadratic, rational, exponential and logarithmic functions. Topics will be covered through both an algebraic and graphical approach. A TI 83+ or TI 84+ calculator will be used regularly; it is highly recommended that each student have a graphing calculator of their own. Students interested in earning college credit must apply and be accepted by CGCC. The fee for the course is paid directly to CGCC, and after

successful completion of the course, students can earn 4 semester hours of college credit. Students who do not wish to take the course for college credit are still required to meet the same standards of the course. This is a full year course at Ichabod Crane.

## **Math 12X (CGCC) MA111-31 / and Math 12Y Honors**

(1/2 credit each)

In the fall semester, the course will be an in depth study of functions. Topics will include linear, exponential, logarithmic, trigonometric, polynomial, and rational functions, and additional topics in trigonometry and analytic geometry, including conic sections. In the spring semester, more advanced topics will be studied. Topics will be analytic trigonometry, sequences and series, parametric equations, polar coordinates, analytic geometry in three dimensions, linear systems and matrices, and an introduction to calculus and limits. Those students that have registered at Columbia Greene Community College for college credit will be awarded 4 college credits upon successful completion of the fall semester.

## **Math 12X & Math 12Y (Pre-Calculus)**

(1/2 credit each)

*Prerequisite: Trigonometry and a passing score on the Trig Regents is required.*

In the fall semester, the course will begin with a review unit on advanced algebra and will continue with an in depth study of functions. Topics will include linear, exponential,

logarithmic, polynomial, and rational functions. In the spring semester, more advanced topics will be studied. Topics will be trigonometry functions, sequences and series, parametric equations, analytic geometry in three dimensions, parametric equations, and additional topics in trigonometry and conic sections.

### **Statistics MA102-36 @ CGCC**

(1 credit)

*Prerequisite: Students must have a minimum average of 80% in Trigonometry H or Trigonometry R and a passing grade on the Trig exam, and 3 high school math credits.*

This full year course focuses on the following topics: introduction to probability, probability distributions, descriptive statistics, random variables including the binomial and normal, sampling estimation, hypotheses testing, chi-square distribution, regression and correlation. The use of technology is essential to studying the topics listed above. The TI83+ calculator, statdisk, and Active Stats are used extensively to complete problems and class activities. This class is a college-level course taught through Columbia-Greene Community College. Tuition is paid to CGCC and, upon successful completion, three college credits are earned.

### **AP Calculus AB**

(1 credit)

*Prerequisite: Math 12X Honors and Math 12Y Honors*

AP Calculus consists of a full academic year of work that is comparable to Calculus courses in colleges and universities. It is

expected that students who take the course will seek college credit, college placement, or both, from institutions of higher learning. Appropriate credit and placement are granted by each institution in accordance with local policy. The course will include some work on elementary functions. The majority of the time will be spent on the AB Calculus curriculum which covers topics in differential and integral calculus.

## **Music/Theatre**

### **Band/Instrumental Lesson**

(1 credit)

Students will have the opportunity to develop an advanced level of musical interpretation, performance and appreciation through the study of compositions by major composers of music for the wind band and transcriptions of works by major orchestral composers. Development of tone quality and technique, ensemble skills (including balance, blend, and intonation), music reading, listening skills, stage presence skills, and marching band techniques are emphasized in this course.

Requirements of this class include: a 40-minute group instrumental lesson on a rotating period basis, participation in all band rehearsals, and performances in all scheduled concerts and parades. Band and Chorale meet the New York state requirements for one year of art/music in high school and allows students to be considered for

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membership in New York State School Music Association (NYSSMA)-sanctioned events.

### ***Chorale/Vocal Lesson***

*(1 credit)*

This course acquaints students with various types of choral literature while providing continual development of vocal quality, range, solo and choral technique, music reading, sight singing, and stage presence skills.

Requirements of this class include: a 40-minute group vocal lesson on a rotating period basis, participation in all choral rehearsals and performances in all scheduled concerts.

### ***Jazz Ensemble***

*(no credit)*

Instrumental and Vocal Jazz Ensembles (Spectrum) are designed to fulfill the needs of students who are interested in exploring different styles of jazz music and its performance. Spectrum rehearses SATB music and the Instrumental Jazz Ensemble uses standard instrumentation (saxophones, trumpets, trombones, and a rhythm section - piano, guitar, bass guitar, drum set). *Membership is by successful audition only.*

## **5 Unit Sequence in Music**

- Music Theory I and II
- 3 Years of Band or Chorus

### ***Music Theory I***

*(1 credit) \* Based upon enrollment.*

*Offered every other year*

Students will study the elements of music (construction of scales,

intervals, triads), develop aural music skills (sight-singing and dictation), learn the fundamentals of voice leading, and write/perform musical compositions based on the principals of harmony. As part of the class content, students will be introduced to MAC computer sequencing software programs. Students entering this class should already have strong music reading skills.

*The recommendation of the music teacher is suggested.*

### ***Music Theory II***

*(1 credit) \* Based upon enrollment*

*Prerequisite: Successful completion of Music Theory I.*

*Offered every other year*

Students will continue to study skills of harmonic principals by analyzing, arranging, composing, conducting and sight-singing music. Harmonic study includes: voice leading of triads in all positions, analysis of phrase structure and cadences, harmonic progression and retrogression, non-harmonic tones, seventh chords, modulation, borrowed chords, augmented sixth chords, and Neapolitan sixth chords. Composition will include the use of MAC computer music sequencing and recording programs.

### ***Music Theory III***

*(1 credit) \* Based upon enrollment.*

*Prerequisite: Successful completion of Music Theory II. Offered every other year*

This class is based on the form and analysis of musical composition in all of the historical music periods.

Students will study Western Music from the Medieval to the Twentieth Century by researching factual knowledge, analyzing major compositional works of each period, and creating musical compositions based upon historical analysis. Conducting, performing, sight-singing and written research papers are required as part of this class. Composition will include the use of MAC computer music sequencing and recording programs.

### ***Performance Based Instrumental Music Alternatives***

*(no credit)*

The following three **non-credit** options are offered as alternatives to the High School instrumental program. Prep/rehearsal time to be scheduled; may be after school.

#### **OPTION I**

- A. One in-school instrumental lesson per week.
- B. Informal recital (end of the school year). Minimum 30-minute actual playing time.

**Preparation:** one hour per week.

#### **OPTION II**

- A. One in-school instrumental lesson per week.
- B. Performance in a small ensemble. Minimum requirement: one hour rehearsal per week.

#### **OPTION III**

- A. One in-school instrumental lesson per week.
- B. Performance in a chamber group (i.e., duet, trio, quartet). Minimum requirement: one hour rehearsal per week.

Each option enables students to qualify for participation at NYSSMA-sponsored Solo/Ensemble adjudication. These options also allow those students desiring to re-enter the core instrumental program to do so without having to fulfill requirements outlined in the Band Manual. These three options will not allow students to participate in NYSSMA-sanctioned honor performing organization.

### ***Theatrical Production***

*(½ credit) \* Based upon enrollment.  
Grades 9-12*

Students will learn the components of “putting together a production.” All phases of a production will be learned and experienced by class members. Students will then become the production staff of their own project. The student production will be the basis for the final grade.

### ***Elements of Theatre***

*(½ credit)  
\* Based upon enrollment.  
Grades 9-12*

Students will study physical and historical aspects of the theatre. Some stage craft and backstage tech. will be included. The role of the actor and his impact will be incorporated through introductory exercises and

techniques. An understanding of the theatre space and its impact on the actor and vice versa is the goal of this class.

### **Theatre II**

*(½ credit)*

*\* Based upon enrollment.*

This class will focus on character creation and scene study. Basic concepts of dramatic action will be applied. Students will examine other people both in real life and their representation in plays. The class will discover and explore acting possibilities. This is a course designed for theatre students who have previously completed Elements of Theatre and Theatrical Production or have the permission of the instructor.

## **PHYSICAL EDUCATION AND HEALTH**

### **Health**

*(½ credit)*

Health is a semester course required for graduation and is offered to students in grades 9,10,11 and 12. The main units covered during the course are: health insurance, nutrition, drug education, disease (with an emphasis on AIDS awareness) and sexuality. Mini-units on stress, family issues and current event topics will also be included.

### **Physical Education**

*(1/4 credit per semester)*

Physical Education is an instructional program contributing to the physical, mental and social development of all students. The broad instructional phase of the program provides for a wholesome, vigorous experience in the development of skills, techniques, knowledge and the appreciation of individual, team and lifetime athletic activities. Most activities are offered on a co-educational basis.

Physical Education is required for graduation. Students must successfully pass Physical Education each year of their four years in high school. Success is based on active participation, performance, and written exams. Students who fail Physical Education for a semester must take two Physical Education classes the following semester to meet the State requirements.

Students are required to change clothes for Physical Education class. Such clothing includes shirt, shorts and sneakers. A sweatshirt and sweatpants would be advisable on cool days. For safety reasons, the following dress code has been approved:

Tops: No pockets

Bottoms: No zippers or belt loops

Socks and sneakers must be worn.

Earrings, rings, or other ornaments or jewelry through any pierced parts of the body must be removed.

### **Grading System**

Physical Education classes are graded on a numerical system. A student's grade is based on written

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unit tests, participation, effort and performance levels. Grades are included in Honor Roll. Excessive, unexcused absences may result in failure to achieve a passing grade in Physical Education.

### ***Alternative Methods of Credit***

Students participating in physical activities that are not offered through the Ichabod Crane Physical Education Program may receive credit in lieu of Physical Education classes (maximum 10 weeks per year). Examples include, but are not limited to, karate and horseback riding. Students are required to apply to the Physical Education Department chairperson and adhere to guidelines set forth by the school board. Only Juniors and Seniors are eligible for this option.

### ***Excuses***

Students unable to participate in Physical Education require a parental excuse and signature. Excuses lasting more than one week need to be issued by a physician. For any student out on a medical excuse, class work in the form of medical packets, outside readings, or adaptive activities will be required each week.

## **SCIENCE**

In addition to providing a solid core of scientific content, the Science Department offers diverse programming to meet the needs of most levels of interest and ability. The Science Department strongly recommends that students planning to attend college complete the core

program which includes all four levels - Earth Science, Biology, Chemistry and Physics.

Regents-level and Regents skills level sciences are based on State core guides and are designed for students pursuing a Regents diploma, either with or without a Regents sequence in science. Laboratory experiences are required for all Regents sciences. Students taking a Regents science course must complete twelve hundred minutes of hands-on laboratory work with successfully written lab reports and pass a Regents examination to receive Regents credit for the course.

**Note:** Students are required to pass one Physical Setting Science and Living Environment as well as the Regents exam in one of these sciences in order to meet State mandates for graduation.

### **Level I:**

#### ***PS – Earth Science***

(1 credit)

This course is designed to give students a new understanding of the world around them, and the processes of change. The curriculum is based on the Core Curriculum

Guide offered by New York State. A hands-on, problem-solving approach will be used to investigate topics in meteorology, astronomy and geology. The Regents exam is the final exam. All students must be enrolled in Regents Earth Science lab.

**Honors PS – Earth Science**

*(1 credit)*

This course provides a more in depth study of the topics in the Core Curriculum guide offered by New York State. A college text is used and the pace is much faster. Students should be enrolled in either Algebra or Geometry.

**Regents PS – Earth Science**

*(1 credit)*

This course is designed for the average science student who plans to continue his/her education past high school. Students should be enrolled in Algebra.

**Regents Skills PS – Earth Science**

*(1 credit)*

This course is designed for students who require skill reinforcement and a slower pace. The curriculum is based on the core curriculum guide offered by New York State. Students should be enrolled in either Algebra I or Algebra.

**LEVEL II  
LE- Biology**

*(1 credit)*

Biology provides students with a basic understanding of biological processes and generalizations. The curriculum is based on the Core Curriculum Guide offered by New York State. Topics include unity and diversity in living things, homeostasis in organisms, reproduction and development, genetics, evolution and ecology. The Regents exam is the

final exam. All students must be enrolled in Biology lab.

**Honors LE- Biology**

*(1 credit)*

This course provides a more in depth study of the topics in the Core Curriculum Guide offered by New York State. The course includes additional topics needed for the SAT II exam in Biology.

**Regents LE- Biology**

*(1 credit)*

This course is designed for the average science student who plans to continue his/her education past high school.

**Regents Skills – LE Biology**

*(1 credit)*

This course is designed for students who require skill reinforcement and a slower pace. It provides a structured learning environment designed to assist students with both core content and lab work.

**LEVEL III:  
PS – Chemistry**

*(1 credit)*

This course provides students with a modern view of the fundamental concepts of chemistry. This course includes the following topics: matter and energy, atomic structure, bonding, the periodic table, the mathematics of chemistry, kinetics and equilibrium, acids and bases, redox and electrochemistry, organic chemistry, applications of chemical

principles and nuclear chemistry. A strong background in math is required. Students entering Regents must be enrolled in Trigonometry. All students must be enrolled in Chemistry lab.

### ***Honors PS - Chemistry***

*(1 credit)*

This course provides a more in depth study of the topics in the Core Curriculum offered by New York State. The course includes additional topics needed for the SAT II exam in Chemistry. Students should have passed both the course and the Regents exam in Geometry and be enrolled in Trigonometry.

### ***Regents PS – Chemistry***

*(1 credit)*

This course is designed for the average science student who plans to continue his/her education past high school. Students should have passed both the course and the Regents exam in Geometry and be enrolled in Trigonometry.

## **NON-REGENTS THIRD YEAR SCIENCE COURSES**

\*NOTE: Either of the two Science courses listed below may be used to complete the third year of Science required for graduation.

### ***Applied Chemistry***

*(1 credit)*

Applied Chemistry provides students with a foundation in chemistry and

how it relates to day-to-day living. Laboratory experiences provide the basis for problem-solving techniques used to investigate the properties of matter, environmental pollution, household chemistry, organic compounds and chemical analysis. Projects in the areas of nuclear chemistry and water pollution encourage students to utilize a variety of creative, problem-solving approaches.

### ***Technical Physics***

*(1 credit)*

This course covers selected topics from general physics for students pursuing a technical program with emphasis on matter, force, power, basic mechanics, torque, power transmissions and certain topics from heat, sound and light. This class is taught using the curriculum from Columbia-Greene Community College. Students need to meet the Columbia Greene pre-requisite to obtain college credit. See a guidance counselor for details on this option.

### ***LEVEL IV: PS- Physics***

*(1 credit)*

This course provides students with a modern view of the fundamental concepts of physics. The areas studied include mechanics, energy and work, wave phenomena and electricity, and magnetism. A strong background in algebra and trigonometry is required. Students should be enrolled in or have passed Trigonometry. The Regents exam is the final exam for the course. All students must be enrolled in Physics

lab. This course is designed for the average and above average student that plans to continue his/her Science education past high school.

## **SCIENCE ELECTIVE COURSES**

### ***Advanced Biology***

*(1 credit)*

**\* NOTE:** Prerequisite for this course: 85% or better in Regents Biology; must also be enrolled in Regents Chemistry, Physics or have completed the core science program. Due to the demands of the college level courses, which often involve evening hours at school, this course is open to juniors and seniors. This is a full-year course that is offered every other year.

This is a course that is recommended for those students interested in pursuing a career in biological sciences. It is designed to expose students to a variety of topics and techniques used in various careers in science. The topics covered include microbiology, histology, immunity and molecular genetics. Students may opt to take the AP exam in Biology and if successful on the exam may receive college credit.

**\* (Pre-requisite required).**

### ***Anatomy/Physiology***

*(1 credit)*

**\*Note:** Prerequisite for this course: 85% or better in Regents Biology; must also be enrolled in Regents Chemistry, Physics or have completed the core science program. Due to the demands of the college level courses, which often involve evening hours at

school, these courses are open to juniors and seniors. This is a full-year course that is offered every other year.

This is a course designed to give those students interested in the sciences, physical education or the medical field some background in anatomy and physiology. Major body systems are studied in terms of part and function. Dissection is a major component of this course. Outside reading, a mentor experience and a major project or term paper are required. The course is taught at a college level and parallels the Regents College Examination syllabus. Students may sign up to take the Proficiency Exam offered in June to receive six college credits at the completion of this course. \*

**\*(Pre-requisite Required).**

### ***Environmental Studies***

*(1 credit)*

**\*NOTE:** This course is open to students that have completed the three-year science requirement. It is recommended that students have a 75% or better average in both Earth Science and Biology. This course provides an in-depth study of important environmental issues, including pollution, energy resources and conservation, natural resources, land use, climate change, soils, popular ecology, and environmental policies. Students will monitor current events, perform labs, conduct fieldwork, and participate in field trip.

## **RECOMMENDED GUIDELINES FOR SCIENCE**

### **LEVEL I: EARTH SCIENCE**

HONORS 'A' average range in Science (7 and 8); enrolled in Algebra  
REGENTS 'C' average range or higher in Science (7 and 8); Algebra  
REG SKILLS Below C range in Science (7 and 8); Algebra / Algebra I

### **LEVEL II: BIOLOGY**

HONORS  
From Honors Earth Science - 85% average in Science  
From Regents Earth Science - 90% average in Science; enrolled in  
Geometry  
REGENTS From Regents Earth Science – 70% average in Science; passing  
Regents grade recommended; enrolled in Geometry  
From RS Earth Science - 80% average in Science; enrolled in  
Geometry  
REG SKILLS  
From RS Earth Science - 65% average in Science

### **LEVEL III:**

HONORS CHEMISTRY  
From Honors LE Biology - 85% average in Science; enrolled in  
Trigonometry  
From Regents LE Biology - 90% average in Science; enrolled in  
Trigonometry  
REGENTS CHEMISTRY  
From Regents LE Biology - 70% average in Science; passing Regents  
Grade recommended; enrolled in Trigonometry  
From RS Biology - 80% average in Science; enrolled in Trigonometry.  
NON-REGENTS  
Applied Chemistry or Technical Physics  
ELECTIVE  
Anatomy/Physiology – see pre-requisite included with course description  
Advanced Biology – see pre-requisites included with course description

### **LEVEL IV:**

PHYSICS  
From Honors Chemistry - 85% average in Science; enrolled in Calculus  
or Pre-Calculus  
From Regents Chemistry - 90% average in Science; enrolled in Calculus  
or Pre-Calculus  
REGENTS PHYSICS  
From Regents Chemistry - 70% in Science; passing Regents grade  
recommended; passed or enrolled in Trig.  
NON-REGENTS  
Applied Chemistry or Technical Physics  
ELECTIVE  
Anatomy/Physiology – see pre-requisite included with course description  
Advanced Biology – see pre-requisites included with course description  
Environmental Studies – see pre-requisite included in course description

## SOCIAL STUDIES

### GRADE 9

The "scope and sequence" to be allowed is based on the New York state Social Studies standards and utilizes a chronological format organized around themes and concepts, rather than by world regions. The curriculum begins in grade 9 with the "Ancient World: Civilizations and Religions," and ends in grade 10 with a unit entitled, "Global Connections and Interactions of Today." Geography skills are now a significant element in both years.

#### ***Global History & Geography 9H***

*(1 credit)*

A minimum final average of 85% in grade 8 Social Studies is recommended for students enrolling in this course.

A summer project includes REQUIRED activities to prepare students for the thematic approach to culture. Students are expected to maintain awareness of current events relevant to the course.

#### ***Global History & Geography 9R***

*(1 credit)*

The Regents-level Global History IR class will focus on review and reinforcement of content. Reading and writing skills are emphasized, including information gathering,

expression of information and ideas, and development of interpersonal and group-relation skills. Students should be reading at grade level. Reading and written homework are regularly assigned, as well as outside readings, short research papers and outside projects. Students take a departmental final exam. The state Regents exam in Global History is required at the end of the second year of study.

#### ***Global History & Geography 9RS***

*(1 credit)*

This course emphasizes basic knowledge objectives and basic social studies skills. The course may be taught in the collaborative model, with a social studies teacher and a special education teacher working together to assist in meeting the students' needs. Particular attention is given to individual needs of each student as they progress through the course. Respect, tolerance, understanding and appreciation of other people and cultures underlie the basic goals of the course. The course is designed for students who require reinforcement and support in reading and comprehension. A departmental final exam is given at the end of this course. The state Regents exam in Global History is administered at the end of the second year of study.

## **GRADE 10**

### ***AP/H World History***

*(1 credit)*

*Prerequisite: Global History 9*

The Advanced Placement course in world history is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the issues and materials in world history. Content specifications will generally conform to areas provided in both the AP World History and New York State Global History and Geography Curricula. Instructional emphasis will be focused to prepare students for both the AP World history exam in May and the Global Studies Regents exam in June. While an open enrollment policy exists, an 85% average in Global History 9 is recommended.

### ***Global History & Geography 10R***

*(1 credit)*

This course is geared to students who read at grade level. Reading and writing skills will be developed through short reports, essays, and outside projects. Students must pass the state Regents exam in Global History.

### ***Global History & Geography 10RS***

*(1 credit)*

The same general course objective and goals are continued from the ninth grade program. The course may be

taught in the collaborative model, utilizing the social studies teacher and the special education teacher to meet the needs of the individual student. Much emphasis is placed on improvement of reading skills and comprehension of course material. Writing skills are stressed and improved through regularly assigned homework and brief reports. Individual needs are a high priority. This course is designed for students who require reinforcement and support in reading and comprehension. Students must pass the Regents or Regents Competency Exam in Global History and Geography.

## **GRADE 11**

As part of the Social Studies program, students in grade 11 take United States History and Government, which is divided into six major units: origins and development of the U.S. Constitution; impact of immigration and technology on the pluralistic culture; the progressive movement; territorial expansion both within and outside the continent; prosperity and depression; global crisis; and present-day United States. A strong emphasis is placed on current events in the United States. In addition, geography of significant events and changes is emphasized.

### ***Advanced Placement (AP) American History***

*(1 credit)*

This college level course explores the fundamental concepts of the

development of United States history. Emphasis on primary reading sources and U.S. historical documents hone analytical and critical thinking skills, which prepares students for the Advanced Placement (AP) exam in American History to earn college credit and for the SAT II Achievement Test in American History for college acceptance and placement. A minimum 90% average in the previous year's social studies class and/or teacher recommendation is suggested for students enrolling in this course.

***U.S. History and Government-R***  
*(1 credit)*

The same units are studied as in the Honors-level course. Reading assignments are given daily, and written homework is assigned on a regular basis to develop reading and writing skills. Some outside readings and brief reports are assigned, in addition to student discussion of current events. Students take the U.S. History and Government Regents exam in June as a final examination.

***U.S. History and Government-RS***  
*(1 credit)*

This course is designed for students who need assistance with reading and comprehension. More time is spent on each major area of study, so basic understandings can be developed. The course may be taught in the collaborative model,

utilizing the social studies teacher and the special education teacher to meet the needs of individual students. Respect, toleration and understanding of others are stressed, and current events also are discussed. Students must pass the Regents or Regents Competency Examination in U.S. History and Government.

***GRADE 12***

**All** students in grade 12 must take two required courses, Economics and Participatory Government, to be eligible for high school graduation. The possibility of alternative credit for the two required courses is available IF APPLIED FOR AND GRANTED BEFORE THE BEGINNING OF THE SENIOR YEAR. Other courses are available as electives for one or two semesters in addition to the required courses.

***Economics-R***  
*(½ credit)*

This course concentrates on three areas: economic theory, entrepreneurship and financial planning. Also studied are the basic concepts of economics: types of economic systems, supply and demand, financial and monetary policies, governmental regulation of the economy and global interdependence as studied through the stock market and international trade. Consumer skills and business management skills are also stressed. Some group and/or individual

projects may be required, in addition to regular homework assignments. A school-generated examination is given at the end of the course.

***Participatory Government-R***  
(½ credit)

The purpose of this course is to prepare students for effective citizenship. The course emphasizes development of public policy decision-making skills. Students will examine through library and field research the ways in which local, state and national governments interact with the public to form and implement policies. A required study of the AIDS issue is included in the curriculum.

## **ELECTIVE COURSES**

***Twentieth Century America at War***

(1/2 credit) \*Based upon enrollment.

Picking up where US History left off, this course will provide an in depth study of the United States at war in the twentieth and twenty first centuries. Beginning with the Mexican American campaign against Pancho Villa, and culminating in our modern day action in Iraq and Afghanistan, United States policies, intentions, and results of its involvement in war will be explored. This single semester course is open to Juniors and Seniors only.

***Modern America Through Film***

(1/2 credit) \* Based upon enrollment.

This half year elective will build on the principles of Participation in Government and will focus on a cultural and social context of American history based on the impact of film on American life. This class will analyze primary and secondary historical writings and films from the 20<sup>th</sup> century, and explore the impact of film on the cultural identity of the United States. This single semester course is open to Juniors and Seniors only.

***Psychology***

(½ credit) \* Based upon enrollment.  
(College credit may be earned from Columbia Green Community College)

This course is an overview of the principles of Psychology. Curriculum concentration is on human personality development, personality theory development, and abnormal behavior. The basic concepts of discipline, and major aspects of human behavior, such as brain and sensory functioning, emotion, learning, intelligence, motivation, and abnormal behavior will be discussed. Psychology will also provide an understanding of the research in social science, including hypothesis development, testing, collection of data, and analysis and reporting of findings. Students will take a teacher generated exam at the end of the course.

### **Western Civilization**

*(1/2 credit each semester) \* Based upon enrollment.*

*2 semesters Seniors Only!*

This course offers students a chance to earn college credit in high school for a standard college pre-requisite. Learn the basis of western, European based civilization, from ancient Greece and Rome, through the Middle Ages and the Renaissance and culminating with modern European Economic Unity. This is an excellent foundation course for liberal art students wishing to get a standard course completed before entering college. College credit may be earned through Columbia Greene Community College, and this course is also accredited in all schools in the SUNY system.

### **Latin America I**

*(½ credit) \* Based upon enrollment.*

This critical thinking, reading intensive history course will examine the social, political, and economic development of post-colonial South America. A case study approach will be utilized with an emphasis on Argentina, Chile, Brazil, and Peru. An understanding of both Global and U.S. History is suggested for success in this elective. A minimum average of 85 in Global or U.S. History and/or teacher recommendation is suggested for students enrolling in this course. This single semester course is open to Juniors and Seniors only.

### **Latin America II**

*(½ credit) \* Based upon enrollment.*

This critical thinking, reading intensive history course will examine the social, political, and economic development of post-colonial Mexico, Central America, and key Caribbean nations including Cuba, Haiti, and Jamaica. An understanding of both Global and U.S. History is suggested for success in this elective. A minimum average of 85 in Global or U. S. History and/or teacher recommendation is suggested for students enrolling in this course.

## **TECHNOLOGY**

Some courses have prerequisites.

### **Aerospace**

*(½ credit) \* Based upon enrollment.*

*Grades 9 – 12*

This course studies the importance of air and space flight in our society. Topics include aerospace careers, propulsion systems, navigation, fundamentals of flight, history and space technology. Gliders and rockets are built to study their respective systems.

### **Basic Photography**

*(½ credit)*

*Grades 10 – 12*

This class is part of the Technology Department's electives. An elective course for upper class students who are interested in learning the basic

aspects of the 35mm camera and black and white darkroom techniques. Some digital photography and video will be explored, as well as Microsoft Power Point. Assignments will be project based and will focus on proficiency in the technical aspects of the photographic process. This class requires independent work outside of class time. A 35mm camera is strongly recommended.

### **Basic Electronics**

*(½ credit)*  
Grades 9 - 12

This course covers ohms law, direct current, alternating current, electrical measurement, semiconductors, transformers, power supplies and an introduction to robotics. Projects include constructing a 300 ma power supply and basic sound activated robot (rover).

### **Audio Electronics**

*(½ credit) \* Based upon enrollment.*  
*Prerequisite: Basic Electronics*  
Grades 10 – 12

Students will learn the theory behind radio operations, radio and television broadcasting, as well as the functions of electronic components and circuitry. Students will build an FM radio.

### **Residential Structures**

*(½ credit) \* Based upon enrollment.*  
Grades 9 – 12

This course covers all aspects of building a home. Studies include

foundations, framing exterior, interior framing, roofing and insulation. Students will construct a scale model home.

### **Construction Systems**

*(½ credit)*  
Grades 9 – 12

This course uses a hands-on approach to teaching the use of all tools of construction, hand and power tools, estimating construction costs and cabinet making. Students may complete a community project (i.e., constructing sleds, picnic tables).

### **Wood Manufacturing Systems**

*(½ credit) \* Based upon enrollment.*  
Grades 9 – 12

This technology systems course studies the elements of a manufacturing system and enables students to better understand manufacturing in industry. The students will develop skills in the use of wood working machinery, wood products and finishes, adhesives, raw materials and mass productions. Related career options will also be explored. Students will complete a mass production project and several individual projects.

### **CAD/Design & Drawing for Production A\***

*(½ credit)*  
Grades 9 – 12

This course is an introduction to simple technical drawing methods and standards. Students will learn to

letter, sketch and draft with tools and instruments before starting computer-aided drawing using Auto Cad 2000 LT.

### **Architectural Drawing/Design & Drawing for Production B\***

*(½ credit)*

*Prerequisite: Computer Aided Design*

*Grades 10 – 12*

This is an introductory course to the basic procedures, practices and standards used in residential architectural drawing. Drawings using Auto Cad 2000 LT include site plans, elevations, floor plans sections, details and schedules. Students will design working drawings for a shed.

### **Architectural Design**

*(½ credit) \* Based upon enrollment.*

*Prerequisite: CAD and Architectural Drawing*

*Grades 10 – 12*

This course builds on skills learned in CAD and Architectural Drawing. Students will use Auto CAD to design exterior walls, roofing, plot plans and site orientation. A 3-dimensional model will be built to match students' designs.

### **Career & Financial Management**

*(½ credit) \* Based upon enrollment.*

*Grades 10 – 12*

This course is required for all students pursuing a sequence in Business, Home Economics, Technology or Vo-Tec. Students will be introduced to the world of work

and guided through their roles within the work place and home. Personal resources, economic systems, insurance, banking, budgets, money management and careers are topics of discussion. This course may be taught collaboratively with a special education teacher.

## **5 Unit Sequence in Technology**

Required 2.5 credits:

- Basic Electronics
- CAD/Technical Drawing I
- Career and Financial Management
- Home Construction
- Wood Manufacturing\*

Choose 2.5 additional electives:

- Aerospace\*
- Residential Structures\*
- Audio Electronics
- Architectural Drawing
- Architectural Design
- Basic Photography

*\*These courses may not be offered every year*

Interdisciplinary sequences in occupational education are also available to students. See your counselor for more information.

## SEMINAR COURSES

### **Freshman Seminar**

*(non-credit course)*

Freshman Seminar encompasses activities and learning experiences that fall outside the bounds of a traditional academic course. Students learn to understand the culture of a new environment, identify and seek help from available resources both inside and outside of the high school, identify and develop positive relationships with peer groups, interpret information about their own academic performance and to set realistic goals for high school and beyond. Freshman Seminar is required for all in-coming first-time freshmen. Students meet for 40 minutes every other day through the first semester in this interactive classroom setting.

### **Senior Seminar**

*(non-credit course)*

In an interactive seminar format, seniors in Senior Seminar are provided with the background and tools necessary to make informed decisions as they relate to post-secondary life. Topics include career and college plan development, personal financial planning, and emotional and social issues that relate to life in and out of the high school walls. This one-semester course is required for all seniors who have space in their schedule in the fall.

## Career and Technical Education (CTE)

Ichabod Crane students may opt to participate in vocational education programs through the Questar III Educational Center in Hudson. These two-year programs are offered primarily to juniors and seniors in good academic standing and are able to meet graduation requirements in four years. In some cases students may earn CTE credits toward academic requirements for graduation. Please see your guidance counselor for details. Programs are as follows:

Academy for Information Technology (AIT)  
Automotive Technologies  
Aviation  
Business Information Systems  
Certified Nurse Aide (Seniors only)  
Construction Technologies  
Cosmetology  
Criminal Justice  
Culinary Arts  
Health & Emergency Medical Careers (Seniors only)  
HVAC/R - Heating, Ventilation, Air Conditioning and Refrigeration  
The Clean and Green Tech Valley Career Program (Seniors only)  
Welding/Metal Fabrication  
Mechanical Technology

### **Academy for Information Technology (AIT)**

Students work towards a Cisco Certified Networking Associate (CCNA) Certification. Students learn

how to install, configure and troubleshoot computer networks. They will also learn about computer systems in this class.

### **Automotive Technologies**

Utilizing state-of-the-art professional tools and computer systems, students learn automotive repair and maintenance skills. NATEF certification is available, a credential recognized by Automotive Service Excellence (ASE).

### **Aviation**

As the only high school flight training program in the Capital District, Aviation prepares students for the FAA flight test for a private license. Possible career opportunities include becoming an airframe and power plant mechanic, commercial pilot, air traffic controller and FAA administration.

### **Business Information Systems**

Entrepreneurial, technical and employability skills are emphasized through computer applications, e-commerce, and a web-based business. Students can also prepare for practice assessments for the Microsoft Office User and study to prepare for the NYS Real Estate license exam.

**Certified Nurse Aide (Seniors only)**

Through classroom theory, laboratory and hands-on clinical instruction, students who complete the program are eligible to take the NYS Nurse Aide Competency Exam.

**Construction Technologies**

Certified by the NYS Builders' Association, students learn construction, renovation skills, and explore new "green" building technologies. They can also earn an OSHA Safety Training Certificate.

Students receive extensive training in home energy efficiency and have the opportunity to receive a Home Energy Analyst & Technician (HEAT) Certificate of Completion through an exciting partnership with Hudson Valley Community College's Workforce Development Institute under funding from the New York State Energy Research & Development Authority (NYSERDA).

**Cosmetology**

Upon successful completion of the 1,000 hours curriculum, students will be prepared for the state boards to obtain a NYS license for a career in the appearance enhancement industry.

**Criminal Justice**

Through classroom instruction, field trips and meetings with professionals in the field, students learn state-of-the-art techniques to prepare for a career in law enforcement.

**Culinary Arts**

This program prepares graduates for careers in the food service and

hospitality fields. Students learn skills from professional chefs and utilize industry standard equipment for catering functions.

**Health and Emergency Medical Careers (Seniors only)**

This program is open to high school seniors interested in learning about a variety of high demand health and emergency medical careers before entering college. Utilizing classroom instruction, professional speakers and real-life experiences at local health-related facilities, students will establish a solid foundation for pursuing a career in the fast-growing field of healthcare. Students will receive Certified First Responder (CFR) Training and may earn credit in a related college course.

**Heating, Ventilation, Air Conditioning and Refrigeration (HVAC/R)**

With classroom instruction and project-based learning, students learn design, installation and repair of HVAC systems, emerging technologies including wind, solar and geothermal, and can obtain EPA certifications.

Students receive extensive training in home energy efficiency and have the opportunity to receive a Home Energy Analyst & Technician (HEAT) Certificate of Completion through an exciting partnership with Hudson Valley Community College's Workforce Development Institute under funding from the New York State Energy Research & Development Authority (NYSERDA).

### **Mechanical Technology**

Topics of study and classroom projects include robotics, machine design and automated manufacturing to solve real-world design problems. Students are prepared for technical employment or to apply to college engineering programs.

### **Welding/Metal Fabrication**

Learning skills from the American Welding Society, students focus on safety, metal fabrication and basic machine-tool operation in the metal-working industry for employment or further education.

### **Student Support Services**

Both the Career Development Center and Guidance Services work with home district school counselors and Questar III teachers to assist students with personal, career and academic development. Career counseling, advisement and college preparation are available, as well as student achievement recognition.

### **Student Activities**

In addition to career/technical and academic studies, Questar III students have a variety of extra-curricular activities available that encourage leadership, volunteerism, interaction with community and business people, as well as regional, state and national competitions. Some of those activities include: B.E.S.T. Portfolio, DECA, HOSA, National Technical Honor Society, ProStart, Service Learning and SkillsUSA.

### **New Visions**

Students may apply for a one-year New Visions career exploration program for their senior year through Questar. Please see your guidance counselor for details. Programs are as follows:

Scientific Research & World Health, Math, Engineering, Technology & Science, Medicine & Allied Health, Visual & Performing Arts.

### **New Visions**

*Academically Challenging Programs for High School Seniors Only*

### **Math, Engineering, Technology and Science (METS)**

Located at the Rensselaer Polytechnic Institute, METS students explore technology and engineering, through laboratory experiences and interactions with world-renowned scientific professionals from places such as SuperPower, Benet Labs, GE and the U. of Albany College of Nanoscale Science & Engineering. Each student takes college Physics and completes a mentoring experience.

### **Medicine and Allied Health**

For students interested in health-related careers such as medicine, nursing, physical/occupational therapy, veterinary and pharmacy, this curriculum includes anatomy and physiology, medical ethics, medical terminology and history of medicine with hands-on experience working

with health professionals. Students also participate in health-oriented community service projects.

### **Scientific Research and World Health**

This program, at SUNY'S Biotech Park in Rensselaer, is designed for students seeking careers in the biological sciences including medicine, biomedical research, environmental studies, pharmacy, etc. Students gain a global perspective on the use of cutting edge lab research to prevent and cure disease, and interact with public health professionals and world-class biomedical researchers.

### **Visual & Performing Arts**

Located at the Arts Center of the Capital Region, students can earn up to 15 college credits through participating in workshops and classroom instruction in visual art, theatre, music, film and English Literature. Students will explore careers in the arts, work with local artists, and prepare the auditions and/or portfolios that will accompany their college applications.