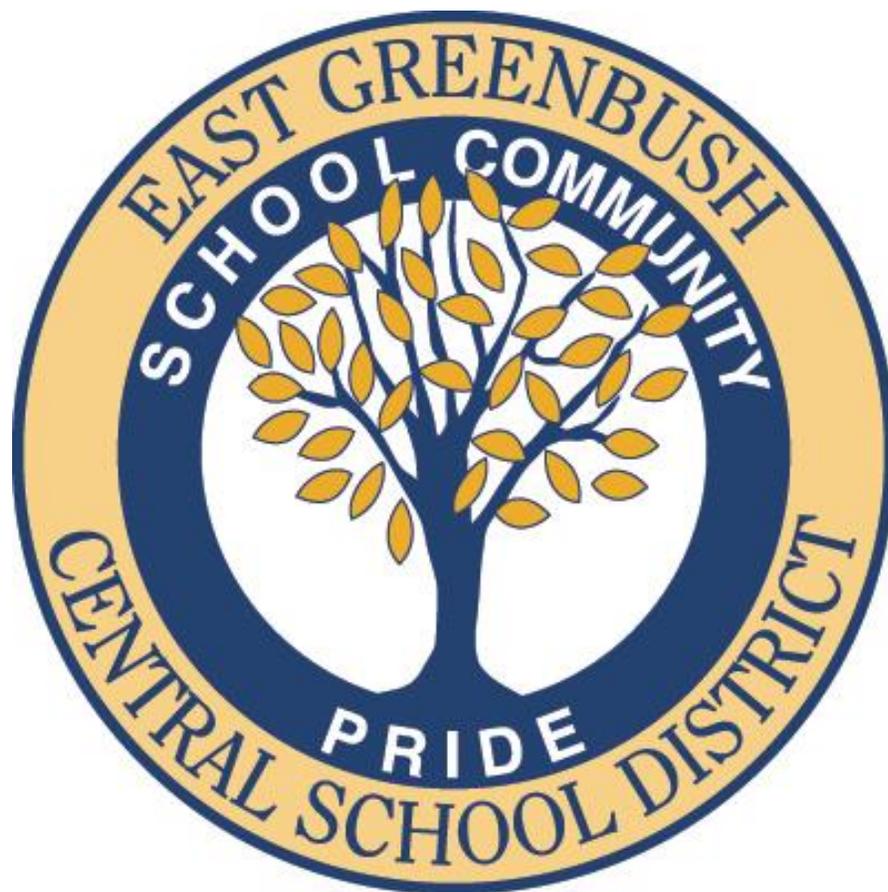


PROGRAM OF STUDIES

COLUMBIA HIGH SCHOOL



2020 - 2021

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INTRODUCTION

Course selections will be completed during the months of February and March. Counselors will meet with students individually. If further assistance is needed, or there are questions specific to your child, please request an individual conference with your counselor. Please call 207-2020 to make an appointment.

When selecting your courses, keep the following in mind:

- Your schedule must include a minimum of five credits plus ½ credit in Physical Education.
- Students are encouraged to take a full schedule of challenging courses consistent with their ability.
- Learn the requirements for entrance to the college or program of your choice or to the career area you plan to pursue after graduation
- Continuation of math, science, and foreign language is highly encouraged throughout all 4 years
- In order for a student to be promoted to the following grade they must successfully complete:

Minimum of 5 ½ credits – end of grade 9

Minimum of 11 credits – end of grade 10

Minimum of 16 ½ credits – end of grade 11

Minimum of 22 credits to graduate

TIMELINE FOR PLANNING

<u>Date</u>	<u>Event</u>
Week of January 6th, 2020	Program of Study avail. online
January 13, 17, 27, 2020	Grade 11 scheduling
January 28-Jan 31, 2020	Grade 9 scheduling
February 3-7, 2020	Grade 10 scheduling
February 4-8, 2020	Grade 8 scheduling
<u>July 1, 2020</u>	<u>Last day to make course request changes (must be made in writing)</u>
<u>August 1, 2020</u>	<u>Last day for level change</u>

*At the conclusion of each scheduling week course requests will go live for families to view. Communication will be sent home with instructions on how to view course requests.

Making Schedule Changes

While students may exercise wide latitude of freedom and choice in determining their academic program, all course changes for the next year must be submitted in writing to the School Counselor prior to ***July 1st***. No level changes will be made after ***August 1st***, pending summer school and Regents' results.

Due to scheduling constraints that result in tighter course scheduling, we are unable to accommodate requests for particular teachers.

Note to Students and Parents: Some courses listed here in the Program of Study may not run due to budgetary reasons. That decision will be made after student requests are tallied.

The final decision to offer or not offer any course in this Program of Study rests with the Superintendent and the Board of Education.

Dropping a Course

- No dropping of 20 week (1 semester) courses after five weeks
- Full-year courses: no dropping after 10 weeks (first marking period).

Decision for withdrawal will involve consultation between the teacher, counselor, Department Supervisor and Assistant Principal.

NCAA ELIGIBILITY DISCLOSURE

The National Collegiate Athletic Association has its own process for determining which courses they will accept for student eligibility. The NCAA is an independent organization with no affiliation with the New York State Education Department or any other formal entity as it relates to academics at the secondary level. Each high school in the country must submit courses to the NCAA for approval on a yearly basis. Therefore, if you are a prospective student athlete for competition at the Division I, I-AA, or II levels, you must go through the NCAA clearinghouse process. We strongly urge students who are candidates for collegiate athletics to meet with their school counselors early on in high school and on a regular basis to review the transcript and verify which courses will be accepted the NCAA.

The NCAA Core Requirements are:

Division I Core Requirements:

- 4 credits English;
- 3 credits math;
- 2 credits natural/physical science;
- 1 credits additional English, math or science;
- 2 credits social science; and
- 4 credits of additional coursework from any area above, or from foreign language, comparative religion/philosophy

Division II Core Course Requirements:

- 3 credits English;
- 2 credits math;
- 2 credits natural/physical science;
- 3 credits additional English, math or science;

- 2 credits social science; and
- 4 credits of additional coursework from any area above, or from foreign language, comparative religion/philosophy

There is also a minimum GPA requirement and a sliding scale for SAT and ACT scores. Please consult the NCAA Eligibility Center for more information at www.eligibilitycenter.org.

Please also note that since we are continually submitting courses for approval through the NCAA, this website also contains the most up-to-date list of eligible courses taught at Columbia High School.

COLLEGE CREDIT OPTIONS

College in the High School Program (CHSP)

The College in the High School Program (CHSP) allows college level courses to be taught to Columbia High School students who begin earning college credits while enrolled in high school. These courses are approved through the respective college and are highly transferable. The College in the High School Program is National Alliance of Current Enrollment Participation (NACEP) approved. These courses are offered at a reduced rate per credit hour and are identified in the Columbia High School Program of Study as CHSP Credits.

The College in the High School Program is established through an agreement between Columbia High School and each college. Teachers who are assigned College in the High School Courses have credentials that are aligned to the requirements for the New York State Department of Education and Instructors. Students earn Columbia High School Credits and College in the High School Program Credits simultaneously. The syllabus, textbooks and tests associated with these courses are in all instances approved in advance through the college.

HVCC CHSP Courses

CISS 105 IT Essentials
 FREN 200 French Language and Culture III
 FREN 201 French Language and Culture IV
 MATH 135 Elementary Statistics
 MATH 170 Pre-Calculus
 MATH 180 Calculus I
 MATH 190 Calculus II
 SPAN 200 Spanish Language and Culture III
 SPAN 201 Spanish and Language & Culture IV
 BADM 200 Business Communication
 ENTR 110 Entrepreneurship
 MKTG 120 Marketing Essentials
 CMPT 101 Personal Computer Concepts & App 1
 BADM 207 Organization and Management
 ACTG 120 Personal Finance

SUNY Oswego CHSP Courses

GER 201 Intermediate German
 GER 202 Continuing Intermediate German

SUNY Albany CHSP Courses

ACAS 109 Intermediate Science Research
 ACAS 110 Intermediate Methods Research
 ACAS 209 Advanced Science Research
 ACAS 210 Advanced Methods Research
 PSY 101 Intro to Psychology

Siena College CHSP Courses

CSIS 110 Intro to Computer Science
 ENGL 1010 Intro to Literature

SCCC College CHSP Courses

MUS 147 Music Fundamentals

The Sage Colleges CHSP Courses

AEM 101 Drawing 1
 PSY 208 Developmental Psychology
 PED 225 Nutrition, Health, Fitness, and Wellness

Syracuse University Project Advance (SUPA) Courses

PST 101 Introduction to the Analysis of Public Policy

Articulated Agreement Credits (HVCC and SCCC)

Articulated Agreement Courses and credits are different to the credits earned through the College in the High School Program. These agreements yield credits that are not transferable, but are accepted at their respective college. *Students must attend the specific college in order to get the credit.*

Individual Articulated Agreements are established according to content area through an agreement with Columbia High School and the respective college. A Columbia High School Teacher who teaches an Articulated Agreement Course does not need to have credentials or areas of specialization that are as highly specialized as college instructors. Teachers are still required to teach within their New York State Education Department Certification area. The syllabus and textbooks associated with these courses are in all instances approved in advance through the college(s).

SCCC Articulation Agreements

CRJ 113 Introduction to Criminal Justice
 CRJ 135 Introduction to Security

GRADUATION CREDIT REQUIREMENTS

Regents Diploma		Advanced Designation Regents Diploma	
Required Credits		Required Courses	
English	4	English	4
Social Studies	4	Social Studies	4
Math**	3	Math	3
Science**	3	Science	3
Foreign Language*†	1	(a) Foreign Language†	3
Art, Music or DDP	1	Art, Music or DDP	1
Health	.5	Health	.5
Physical Education	2	Physical Education	2
Electives	3.5	Electives	1.5
TOTAL	22	TOTAL	22

* Students are required to have completed one unit of credit in a Foreign Language and pass the Local Proficiency Exam.

** An integrated course in mathematics/science/technology or a computer science course may be used as the third required unit of credit in Mathematics or Science.

† A five-credit sequence of Business or Technology courses can be used as a substitution for the foreign language requirement for graduation. The Career and Financial Management course must be included in the sequence.

PATHWAYS TO GRADUATION 4+1 OPTION FOR REGENTS EXAMS

The New York State Board of Regents approved regulations establishing multiple, equally rigorous assessment pathways to graduation. Multiple pathways recognize the importance of engaging students in rigorous and relevant academic programs. Most students will earn their Regents Diploma through the “Humanities Pathway”, listed below, earning a 65 or higher on listed Regents exams. However, opportunities may exist for students to earn their diploma through the following pathways: CDOS, CTE, STEM. Please consult your school counselor for more information.

<u>Required Exams for Regents Diploma: Humanities Pathway</u>	<u>Required Exams for Advanced Regents Diploma</u>
English Language Arts	English Language Arts Exam
Math Regents (typically Algebra I)	Algebra I, Geometry and Algebra II Exams
Regents Global Studies	Regents Global Studies Exam
Regents U.S. History	Regents U.S. History Exam
Regents Science	Two Regents Science Exams
	(a) Local Regents Foreign Language Exam

*Special Education students may earn a Local Diploma through either the Low Pass Safety Net or Compensatory Safety Net Option where the minimum Regents exam score is lower than 65. Please consult your school counselor.

*There may be additional opportunities for all students to earn a diploma while falling short of the minimum 65 passing score. Please consult your school counselor for information.

STANDARDS

R = Regents: Students will be expected to perform at the level of the New York State Regents standard and, where applicable, take a Regents examination.

H = Honors: Students will be expected to perform at an advanced standard in an accelerated and/or enriched environment.

AP =Advanced Placement: Students will be expected to perform at an advanced standard in an accelerated and/or enriched environment. The curriculum is provided by the *College Board*. Students are eligible to take an Advanced Placement Exam for possible College credit. The acceptance of these credits is dependent on score and is at the discretion of individual colleges or universities.

CHSP Credits = College in the High School Program Credits. Students will be expected to perform at an advanced standard in an accelerated and/or enriched environment and to have pre-requisite and co-requisite advanced math and science courses according to the course being offered. Students may participate in CHSP courses without earning or paying for the college credit. These credits are highly transferable in the post-secondary environment but subject to individual determinations made by colleges and universities.

*Students who accrue college credits at the high school level should work closely with their college advisor to monitor how these credits may affect their enrollment status and financial aid.

LEARNING RESOURCE CENTER

CHS offers Learning Resource Centers in both math and English. They are staffed by a teacher from the respective department. Students are free to access the LRC for extra help during any free time in their day. Upon teacher or parent request it may be scheduled during a student's day. For additional information, contact your child's school counselor.

INDEPENDENT STUDY

Independent Study is not a structured program but an avenue of study developed by a student in cooperation with a faculty member to gain special knowledge and/or experiences. The amount of credit granted (¼ to 1 full credit) is determined by the nature and caliber of the student's work. The program is centered on a student's designing and executing his/her own course of study with a limited amount of teacher involvement. To obtain credit, a student makes arrangements with a teacher to supervise the study program. Following acceptance of the proposal, a credit value and time schedule is set that is mutually agreeable to the student and teacher. Candidates for independent study must apply through the Guidance Office.

REQUEST FOR COLLEGE CREDIT

If a student has interest in taking a class at a college, outside the school day, for CHS credit, they must first be granted approval through the district. Consideration of a college course for CHS credit will be based on the student's educational plan.

Students should see their school counselor for additional information, guidelines, and the application.

CAREER PATHS

The following charts contain suggested electives for students interested in specific career paths.

These electives can be taken as part of a student's additional 3.5 or 1.5 elective credits depending on diploma type (see graduation requirement chart)

Students are encouraged to explore different electives.

Humanities and Communications

Public Speaking
Continued study of a language thru senior year
Computer Graphics
Photography
Microsoft Word Essentials
Computer Concepts and Applications
CFM –Career and Financial Management
Web Page Design & Media Communications
Journalism
Creative Writing
Business Communication

Business Administration

Microsoft Word Essentials
Continued study of a language thru senior year
Computer Concepts and Applications Suite
Public Speaking
CFM—Career and Financial Management
Entrepreneurship
Marketing Essentials
Web Page Design & Media Communications
Accounting
Computer Graphics
Organization and Management
Business and Personal Law
Personal Finance
Business Communication

Health and Human Services

Microsoft Word Essentials
Continued study of a language thru senior year
Computer Concepts and Applications
Public Speaking
CFM—Career and Financial Management
Psychology

Sociology
Abnormal Psychology
Personal Performance PE
Computer Graphics
Food and Nutrition Across the Lifespan (offered 2021-22)
Careers in Human Services (offered 2021-22)
Nutrition, Health, Fitness and Wellness
Developmental Psychology
Independent Living
Career and Financial Management (CFM)
Career Exploration Internship Program (CEIP)

Visual and Performing Arts

Art Electives
Continued study of a language thru senior year
Music Electives
Public Speaking
Creative Writing
CFM—Career and Financial Management
Marketing Essentials
Web Page Design & Media Communications
Journalism

International Studies

Continued study of a language thru senior year
Microsoft Word Essentials
Computer Concepts and Applications
CFM—Career and Financial Management
American Perspectives
Public Speaking
Sociology
Accounting
AP European History
Organization and Management
Business Communication
All Art Electives

Law, Criminal Justice, Public Safety and Security

Criminal Justice
Intro To Criminal Law
Intro to Securities
Criminology
Continued study of a language thru senior year

Psychology
Abnormal Psychology
Public Speaking
Sociology
Microsoft Word Essentials
Computer Concepts and Applications
CFM—Career and Financial Management
Entrepreneurship
Business and Personal Law
Computer Graphics

Science and Technology
Design and Drawing for Production
AutoCAD
Modern Mechanisms
Continued study of a language thru senior year
IT Essentials
Computer Programming
Networking
Microsoft Word Essentials
Computer Concepts and Applications
CFM—Career and Financial Management
Intro to Engineering Design
Principles of Engineering
Public Speaking
Photography
Drawing
Cartooning and Illustration
Computer Graphics

Engineering and Design
Design and Drawing for Production
Intro to Engineering Design
Principles of Engineering
Microsoft Word Essentials
Computer Integrated Manufacturing
Computer Concepts and Applications
CFM —Career and Financial Management
Public Speaking
AutoCAD
Modern Mechanisms
Computer Graphics
Drawing

Ceramics and Sculpture
Cartooning and Illustration

Computer Information and Applications
IT Essentials
Computer Programming
Networking
AutoCAD
Microsoft Word Essentials
Computer Concepts and Applications
Web Page Design & Media Communications
Computer Graphics

Continuation of math, science and foreign language is highly encouraged.

ART

The Art Department offers a wide selection of courses and experiences for all students. A student planning to major in Art should have at least a three-year sequence and preferably four years of art courses. The sequence usually begins in 9th grade with Studio Art. At least two years of study in drawing, painting, sculpture, and computer graphics/electronic media are recommended in order to create a college preparatory portfolio.

A student completing an Art sequence and working for a Regents diploma must save work from all Art courses, and assemble an art portfolio senior year. The portfolio must be available for review by the State Education Department. A student planning post-graduate art related studies should take at least one three-dimensional art course (sculpture or ceramics); along with two-dimensional courses such as painting, drawing, etc.

SUGGESTED SEQUENCE FOR STUDENTS INTERESTED IN PURSUING ART AS A MAJOR IN COLLEGE

Grade 9: Studio Art

Grade 10: Drawing and/or Painting

Grade 11: Advanced Art (Portfolio Refinement)

Grade 12: Art Electives

STUDIO ART-R

A9000 40 Weeks 1 Credit
(Grades 9 - 12)

This course is recommended for non-art majors, as well as art majors for a Regents diploma in art. This course meets the full year art requirement for graduation. Studio Art is a comprehensive foundation course for all secondary school art. Students will be introduced to a variety of studio experiences pertaining to the study of art including computer graphics, drawing, painting, sculpture, ceramics, and portfolio. The elements and principles of design will be incorporated into the studio experience so that students will be able to evaluate art, as well as create and design art. This course is a prerequisite for all art elective courses.

ADVANCED ART (PORTFOLIO REFINEMENT) R

(CHSP-Sage 3 credits)

A9010 40 Weeks 1 Credit
(Grades 11-12 Suggested) It is strongly suggested that students interested in taking this course do so their Junior year.

Prerequisite: Studio Art. A student must also present a portfolio of work to be assessed by the art teachers prior to admittance into this course.

In this course, students will refine a visual art portfolio of their work, focusing on their individual needs. The finished portfolio should include approximately 15 to 20 pieces that represent the best work of the student. It should demonstrate technical competence, originality, and ideas, avoiding repetition. A minimum of 10 pieces should be drawings made from observation of a still life, landscape or human figure. Students should also include other 2-D artwork such as paintings, photographs, mixed media, pastel, marker and computer graphics. Photographs of three-dimensional art such as ceramics and sculpture should be included. A major emphasis will be on individual pieces and critical analysis. Work outside of class will be required in order to prepare a portfolio of art works for college entrance or art careers. Students will be required to prepare an art portfolio for college entrance or art careers. Students will also be required to provide their own portfolio case.

Students may earn three credits from The Sage Colleges for AEM 101 Drawing 1.

COMPUTER GRAPHICS I or II-R

A1102/A1122 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

Introduction to Adobe CS4 software: To introduce students to the basic elements and skills involved in the creation of computer graphics. To actively engage students in developing, implementing and evolving ongoing electronic and print portfolios of their work. To support students in applying computer graphic skills and capacities to enhance multimedia presentations of projects, reports and investigations for other subject content areas. To introduce students to the ways in which computer graphics can serve as a vehicle for imaging and visually concretizing their scripted scenarios, viewpoints and perspectives on literature, social issues and life experiences. Students will demonstrate the connection between computer graphics, capacities and skills and workplace career and professional opportunities.

DRAWING I or II-R

A1001/A1101 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

Drawing is an intermediate course for students in grades 10 - 12. This course provides opportunities for the acquisition and development of basic drawing skills and techniques by exploratory projects in charcoal, conte, pencil, pen and ink, and scratchboard. The second part of the course further develops these skills and techniques at a higher level through use of the above and mixed media, as well as the study of artists' styles and techniques, and life drawing. Students may be required to purchase portfolios, sketchbooks, pencils, and other drawing materials.

PAINTING I or II-R

A1002/1012 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

Painting is an intermediate course for students in grades 10 - 12. This course provides a foundation in understanding color theory, and development of basic skills, and techniques by providing opportunities for the students to work in a variety of media, including pastel, tempera, ink, gouache, watercolor, and acrylic. The second part of the course further develops painting skills and gives the student the opportunity to work in his or her choice of media. The study of art trends and artists' styles of painting is explored to further the students' understanding of how the artist uses the medium to express oneself.

CERAMICS/SCULPTURE I or II-R

A1005/A1015 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

Students build on knowledge of handling clay as learned in Studio Art. Projects made will range from functional objects to sculptural pieces. Students who are Art majors must take Ceramics/Sculpture to expand their perception from the two-dimensional realm into the third dimension. Students will work with the additive and subtractive methods as they explore various materials such as paper, wire, clay, etc.

PHOTOGRAPHY I

A9001 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

This course is designed for the novice who wants to learn how to take a good photograph and wants to learn about

photography. The student will explore some history of photography as well as learn about photographers past and present. The emphasis of the course will be to learn about the camera, film and photographic composition. The student will also learn how to develop black and white film, how to use the enlarger to create black and white prints from negatives, and how to use filters for contrast in their prints. Students will also complete a research project as part of this course. This course is recommended for students who are seriously interested in the art of black and white photography. Students must also be able to manage their time well and work independently on a consistent basis. Students need to have a 35mm Single Lens Reflex (SLR), semi-automatic camera. Students must also supply their own black and white film as well as 8"x10" photographic paper.

CARTOONING/ILLUSTRATION I or II-R

A9003/A9013 20 Weeks ½ Credit
(Grades 10 - 12)

Pre-requisite: Studio Art

This studio arts course allows students to learn and practice various technical skills and styles in cartooning. Students will hone their mechanical and observational skills in drawing, developing their creativity and different styles of cartooning through the development of work that reflects subjects of personal interest and importance. They will understand how to make revisions in their artwork to create strong compositions and a finished portfolio of work that is ready for a gallery exhibit. Students will also learn about careers and skills in five categories of cartooning.

INTRODUCTION TO VIDEO GAME DEVELOPMENT

A1115 40 Weeks 1 Credit
(Grades 10 - 12)

Looking to have fun while building lifelong skills? In this new and exciting, full-year, multidisciplinary course, students will learn game theory, build original games, and explore careers in the video game industry. Open to all talents and experience levels, students will engage in collaborative, hands-on projects covering illustration and graphic design, narrative writing, computer coding/programming, and more! Industry mentors will visit to share their experience, academic background, and career paths. Whether creatively or analytically-minded, master skills applicable to all careers and engage in meaningful learning experiences of student interest and enjoyment!

CAREER AND TECHNICAL EDUCATION (CTE)

Career and Technical Education courses will enable students to explore various career opportunities and will help prepare them to function successfully in life. Students completing Career and Technical Education pathways may be prepared for employment immediately after high school.

A five-credit sequence of Business, Technology or Family and Consumer Sciences (FACS) courses will satisfy the foreign language requirement for graduation. Career and Financial Management is a sequence requirement.

A student who enrolls in select Business Courses can earn up to a total of 18 college credits.

A student who enrolls in select Family and Consumer Sciences Courses can earn up to seven college credits.

BUSINESS DEPARTMENT PATHWAYS

BUSINESS MANAGEMENT/ADMINISTRATIVE

The following courses may fulfill the requirement to graduate with a business administrative designation on the diploma toward a CTE Pathway. NYSED approved courses should be taken in the following order:

1. Microsoft Word Essentials
2. Career and Financial Management
3. Entrepreneurship (HVCC, 3 College Credits)
4. Marketing Essentials (HVCC, 3 College Credits)
- 5.*Computer Concepts and Applications (HVCC, 3 College Credits)
6. Career Exploration Internship Program or Organization and Management (HVCC, 3 College Credits)

*This course has a prerequisite of Microsoft Word Essentials

ACCOUNTING/FINANCE Pending NYSED Approval

1. Microsoft Word Essentials
2. Career and Financial Management
3. Entrepreneurship (HVCC, 3 College Credits)
4. Business and Personal Finance (HVCC, 3 College Credits)
- 5.*Computer Concepts and Applications (HVCC, 3 College Credits)
6. Accounting

7. Career Exploration Internship Program

*This course has a prerequisite of Microsoft Word Essentials

COMPUTER APPLICATIONS FOR BUSINESS Pending NYSED Approval

1. Microsoft Word Essentials
2. Career and Financial Management
3. Business Communication (HVCC, 3 College Credits)
- 4.*Computer Concepts and Applications (HVCC, 3 College Credits)
5. Business Technical Math or Accounting
6. Web Page Design and Social Media or Career Exploration Internship Program

*This course has a prerequisite of Microsoft Word Essentials

BUSINESS AND MARKETING HONOR SOCIETY

Students who have successfully completed three credits in business may be eligible for the Business and Marketing Honor Society during junior or senior year

FUTURE BUSINESS LEADERS OF AMERICA

Students enrolled in business classes can participate in a national business organization – Future Business Leaders of America. Students participate in leadership activities and attend local and state conferences. Students participate in community service projects.

ACCOUNTING

<u>OB122</u>	<u>40 Weeks</u>	<u>1 Credit</u>
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(Grades 10-12)

This is a full-year course designed to explore the various careers and certifications in the field of accounting. Students develop basic accounting skills. The processes and procedures for effectively maintaining and reporting a business's financial records are applied. The curriculum is taught utilizing an online program. The field of accounting continues to be an occupation with career opportunities. Topics included are journalizing and recording business transactions; the accounting cycle; and preparation of financial statements. Students will analyze financial statements of existing companies through their competition in The Stock Market Game. Students will complete accounting simulations utilizing on-line working papers and journals. This course is recommended for students wishing to major in Business in college.

BUSINESS COMMUNICATION (CHSP-HVCC 3

credits)

OB131 20 Weeks ½ Credit

(Grades 11-12)

Recommended: Microsoft Word Essentials

This college-level class is designed for students who wish to improve their written and oral communication skills as applied to business situations. Composition and formatting of email, business letters, memorandum, and reports are perfected. Strategies to become an effective listener, assess body language, and acknowledge cultural differences are studied. The course includes discussion and application of the specific types of written business communication forms and graphic aids for successful presentations. Microsoft Word and PowerPoint are used to practice business writing techniques including professional resume preparation, reports, and proposals. Punctuation, spelling, and grammar rules are studied and applied.

Students may receive three college credits through HVCC for BADM 200 Business Communication.

BUSINESS TECHNICAL MATHEMATICS

OB132 40 Weeks 1 Credit

(Grades 11-12)

Business Technical Math is a 1 credit specialized interdisciplinary business math course related to the mathematics learning standards. (This course is specifically designed to prepare students who are not strong in mathematics the skills to understand the complex financial world they will encounter during their lives.) As outlined in Commissioner’s Regulations 100.5(a) (7) (IV), for students who have successfully passed the required Algebra Regents examination and upon local educational agency approval, this specialized course may be used to fulfill one of the three units of mathematics required for the Regents diploma.

Business Technical Math covers topics of technical applications of fractions, decimals, converting units, the metric system, ratio and proportions, measurements, rearranging and substituting into formulas, and geometry applications. Topics include banking/investment strategies, tax calculations, vehicle transportation costs, housing costs, insurance, loans, investments, purchasing and inventory, credit, accounting and financial management. Many of the concepts learned in this course will be developed using the Excel spreadsheet program which will provide students with a foundation in computer literacy with math applications. In addition, online programs and simulations pertaining to money management will be utilized.

CAREER AND FINANCIAL MANAGEMENT (CFM)

OE200 20 Weeks ½ Credit

(Grades: 9-12)

Develop skills that will last a lifetime! This course will focus on career exploration, workplace issues, and personal financial topics. Students will participate in career self-assessments, explore a variety of careers and industries, discuss college options, and learn the skills and competencies needed for future success. Students will create a resume, complete job applications, practice interview techniques, and learn to work cooperatively/productively with employers and co-workers. In addition, students will learn to successfully handle their own personal financial lives. Topics will include budgeting, checking and savings accounts, credit, insurance, and investing. Guest speakers will include members of the community from a variety of occupations. They will share their educational backgrounds, career paths, and speak to the students about a typical workday. Junior Achievement—Career Success Skills Program will be taught by a volunteer professional. This course is required as part of the 5 unit sequence to become exempt from taking a language.

CAREER EXPLORATION INTERNSHIP PROGRAM

(CEIP)

OE300 20 Weeks ½ Credit

(Grade 12)

Required: A completed application and recommendations must be submitted for approval. See counselor for application packet.

Recommended: Microsoft Word Essentials

- **Students planning to enroll in CEIP must provide their own transportation to and from their placements.**
- **Students who choose to enroll in this elective course are expected to demonstrate a level of responsibility and commitment appropriate for the workplace.**
- **Outstanding attendance record and academic record is imperative.**
- **It is suggested that a student not have a part time job during the internship.**

This course allows students to complete a **non-paid internship experience** in one career of interest. Students will need to complete a minimum of 54 hours in their

internship experience and 27 hours of classroom instruction. Topics such as communicating for success; as well as writing, speaking, reading and listening for successful communication will be discussed. In addition, workplace success skills are learned.

In the past, students have explored such careers as: accounting, television/radio, child care, software design, health care, journalism, sports marketing, teaching, as well as other occupations of student interest. This program gives students a first-hand opportunity to learn about a particular career. This opportunity allows students to gain insight into the skills and educational requirements of a career prior to college. Students will also have scheduled class meetings that fulfill the 27 hours of classroom instruction. Characteristics such as honesty, integrity, ethics, teamwork, and a positive attitude are expected. Applications to enroll may be obtained from the Guidance Department and will be reviewed by the Business Department Coordinator.

ENTREPRENEURSHIP (CHSP-HVCC 3 credits)
OB920 20 Weeks ½ Credit
(Grades 10-12)

What does achieving the “American Dream” of owning and operating a business really involve? This course introduces the essentials of how to start and successfully run a small business. Topics covered include franchising as well as other business structures, management, marketing, communications, financial planning and the legal aspects of starting a small business. Students will create and design business cards, logos, business stationery, brochures, t-shirts, and floor plans. In addition, Microsoft Excel, Microsoft Word, Publisher, PowerPoint and Google Applications will be applied to entrepreneurial documents. Students will learn to utilize the many resources that are available through the Internet and other government agencies to help them start a small business. Students will choose a business of interest and explore starting a business in that industry. Guest speakers from the community working in small business will discuss their careers. Videos featuring a variety of businesses will expand students’ knowledge of the workplace.

Students may receive three college credits through HVCC for ENTR 110 Intro to Entrepreneurship.

MARKETING ESSENTIALS (CHSP-HVCC 3 credits)
OB 204 40 Weeks 1 Credit
(Grades 11-12)

The field of marketing is exciting, creative, and engaging! You may not realize, but marketing is all around you. Special events covered in class

include: Black Friday, Cyber Monday, Small Business Saturday, the Grammys, the Academy Awards, the Super Bowl, March Madness, and Major League Baseball. Learn about market segmentation, legal and ethical issues, communication skills, public relations, management, selling strategies, product presentation, promotional mix, advertising, celebrity endorsements, and sponsorships. Students will analyze case studies and create logos, slogans, commercials, and print advertisements. Branding, taste-testing, and selling a product through several forms of promotion including social media will be explored.

Microsoft Office Suite concepts will be taught including Publisher, Excel, Word and PowerPoint. In addition, Google Suite will be utilized for engaging projects. Students will create “real-life” flyers and brochures for school events utilizing programs such as Animoto, iMovie, Windows Media Player and Lucidpress. Guest speakers from a wide variety of occupations in the field of marketing will discuss their careers. Students will also gain knowledge from current business videos. Sign up for Marketing Essentials today: “Just Do It.”

Students may receive three college credits through HVCC for MKTG 120 Principles of Marketing.

COMPUTER CONCEPTS AND APPLICATIONS
(Formerly Microsoft Office Suite)
(CHSP-HVCC 3 credits)
OB110 20 Weeks ½ Credit
(Grade 11-12)
Prerequisite: Microsoft Word Essentials

Computer Concepts and Applications for Windows is a program that students need to succeed in college, work, and life. Students will gain hands-on experience learning the integrated applications of Word (word processing), Excel (spreadsheets), Access (database), Outlook (e-mail), Publisher and PowerPoint (presentations). Students will also have an overview of the basics for creating Web documents. This course is a must for all students who wish to increase their computer skills.

Students may receive three college credits through HVCC for CMPT 101 Personal Computer Concepts & Applications I.

MICROSOFT WORD ESSENTIALS

OB150 **20 Weeks** **½ Credit**
(Grades 9-12)

Is it midnight and you are still trying to complete that three-page report? In today's information age, keyboarding is a life skill, which has value for all students. Eliminate bad habits that slow you down and maximize your speed and accuracy by developing proper keyboarding techniques. Learning Microsoft Word is essential for college and career readiness. Become proficient in formatting a variety of documents. Learn all the Word Ribbons including layout tools as well as search and replace, formatting page numbers, headers/footers, margins, boxed tables, memos, correct email format, business letters, reports, endnotes and job application documents. Google Applications and Drive will be utilized to learn collaboration and effective business communications in the workplace.

ORGANIZATION AND MANAGEMENT (CHSP-HVCC 3 credits)

OB402 **20 Weeks** **1/2 credit**

Students wishing to become effective leaders and perhaps become a manager or CEO in the future will love this college-level class. This course will stress organization theory, principles, and practices. Topics covered include the management functions of organizing, planning, staffing, directing, and controlling; social responsibility; the effect of multi-cultural diversity in the workplace; leadership styles and motivational theories.

Students may receive three college credits through HVCC for BADM 207 Organization and Management.

BUSINESS AND PERSONAL FINANCE (CHSP-HVCC 3 credits)

OB119 **20 Weeks** **1/2 credit**

Learn how to effectively manage your hard-earned money while earning college credit. Explore the financial industry. This course is useful in planning for college, careers and lifelong financial success. Major topics include: analyzing and understanding paychecks and income taxes; budgeting; online banking; checking and savings accounts; employee benefits; insurance options; short and long-term investments; the stock and bond markets; mutual funds, appropriate use of credit and borrowing; estate planning; renting an apartment and purchasing real estate.

Students will explore topics using project-based assignments and a variety of computer simulations.

Students will also explore career opportunities in several financial service industries which are projected to experience the fastest growth rate for available careers in the future. Guest speakers from the banking and finance industry will discuss their careers. The skills acquired in this class will benefit the student for life.

Students may receive three college credits through HVCC for ACTG 120 Personal Finance.

WEB PAGE DESIGN & SOCIAL MEDIA

OB906 **20 Weeks** **1/2 Credit**
(Grades 10-12)

To be competitive in today's fast-paced business world, it is essential to market products and services through print and social media. In this course, students will learn fundamental layout and design skills as they develop creative and appealing media communications using drag and drop web development software such as Weebly, Wix, Google Sites, as well as creating websites utilizing HTML coding. Students will create three company websites and an on-line portfolio. Social Media and its effect on business communication will be incorporated within the designed webpages.

CCIS 105 – IT ESSENTIALS (A+): PC HARDWARE AND SOFTWARE (CHSP – HVCC 3 CREDITS)

NCS105 **40 Weeks** **1 Credit**
(Grades 11-12)

Please note that this course will not be offered in 2020-21.

This course, which maps to Cisco IT Essentials: PC Hardware and Software and CompTIA curricula, provides an introduction to the computer hardware and software skills needed to help meet the growing demand for entry-level information and communications technology (ICT) professionals. The curriculum covers the fundamentals of PC technology, networking and security, and also provides an introduction to advanced concepts in these areas. IT Essentials is a hands-on, career-oriented solution with an emphasis on practical experience to help students develop fundamental computer skills along with essential career skills. The curriculum helps students to prepare for entry-level ICT career opportunities and the CompTIA A+ certification, which helps students differentiate themselves in the marketplace to advance their careers in these areas. Students may receive three college credits from HVCC for CISS 105 IT Essentials.

FAMILY AND CONSUMER SCIENCES (FACS)

HUMAN SERVICES PATHWAY (pending NYSED approval)

Students who successfully complete the following courses may be able to graduate with a CTE Technical Endorsement on their diploma.

1. Careers in Human Services (offered 2021-22)
2. Food and Nutrition Across the Lifespan (offered 2021-22)
3. Nutrition, Health, Fitness, and Wellness
4. Developmental Psychology
5. Independent Living
6. Career and Financial Management (CFM) (offered through the Business Department)
7. Career Exploration Internship Program (CEIP) (offered through the Business Department)

CAREERS IN HUMAN SERVICES

OH 220 20 Weeks ½ Credit
(Grades 9-12)

Please note that this course will not be offered in 2020-21.

This course is designed for students interested in learning about the wide variety of careers in the field of human services. Students will explore career pathways that relate to meeting the needs of individuals and families such as psychology, social work, counseling, family and community services, physical therapy and other health services, and education. In addition, students will investigate the projected growth of specific occupations in this career field. Students will also learn about the aptitudes, attitudes, and skills; education and training; and specialized knowledge needed to succeed in human services careers. This course is recommended for students who are interested in pursuing a career working with people.

FOOD AND NUTRITION ACROSS THE LIFESPAN

OH222 20 Weeks ½ Credit
(Grades 9-12)

Please note that this course will not be offered in 2020-21.

This course is designed for students interested in the link between the preparation and consumption of foods to overall health and wellness. During this laboratory-based course, students will identify influences on food choices, apply knowledge of nutrition to dietary planning, and gain practical experience planning, preparing and evaluating a wide variety of foods. Additional topics include: food production; food and diet trends; healthy food preparation

techniques; sustainable food practices; food science; food technology; and food product marketing. By the end of this course, students will be better able to make informed decisions about food and nutrition for lifelong wellness. This course is recommended for students with an interest in the human services career field, and those with a career and/or personal interest in food preparation, nutrition, health, and wellness.

INDEPENDENT LIVING

OH224 20 Weeks ½ Credit
(Grades 11-12)

This course is designed for students interested in preparing for the roles and responsibilities they will have after high school. Students will explore and practice skills that will enable them to become happy, healthy, and productive individuals, wage earners, life-long learners, and community leaders. Topics include eating healthfully while on a college food plan or cooking for oneself, managing finances and living within a budget, renting and furnishing a living space, buying and insuring a car, caring for clothing, managing time and balancing one's personal and professional lives, setting personal and professional goals, preparing for a career, as well as timely topics such as cybersecurity, social awareness, and navigating the social scene. This course is recommended for students interested in feeling more confident about, and prepared for, life after high school.

DEVELOPMENTAL PSYCHOLOGY (CHSP - Sage

Colleges 3 credits)
OH120 20 Weeks ½ Credit
(Grades 10-12)

This college credit-bearing course is designed for students who are interested in pursuing a career in education or any career in the human services field. Students will take an in-depth look at the knowledge, skills, and attitudes necessary to promote quality growth and development across the human lifespan. This includes prenatal development, infancy, childhood, adolescence, adulthood, and aging. Students will identify major development milestones in sensorimotor, physical, cognitive, language, and psychosocial development during each of these stages, and appreciate how these may vary across cultural and physical environments. Students will have multiple opportunities to learn, practice, and apply the knowledge and career skills through laboratory and fieldwork experiences that will support their future work, whether it be in education, psychology, social work, health and therapeutic sciences, medicine, research, or related careers in human services. Students who successfully complete this course may earn

four college credits through The Sage Colleges for PSY 208: Developmental Psychology.

NUTRITION, HEALTH, FITNESS, AND WELLNESS

(CHSP – Sage College 3 credits)

OH 223

20 Weeks

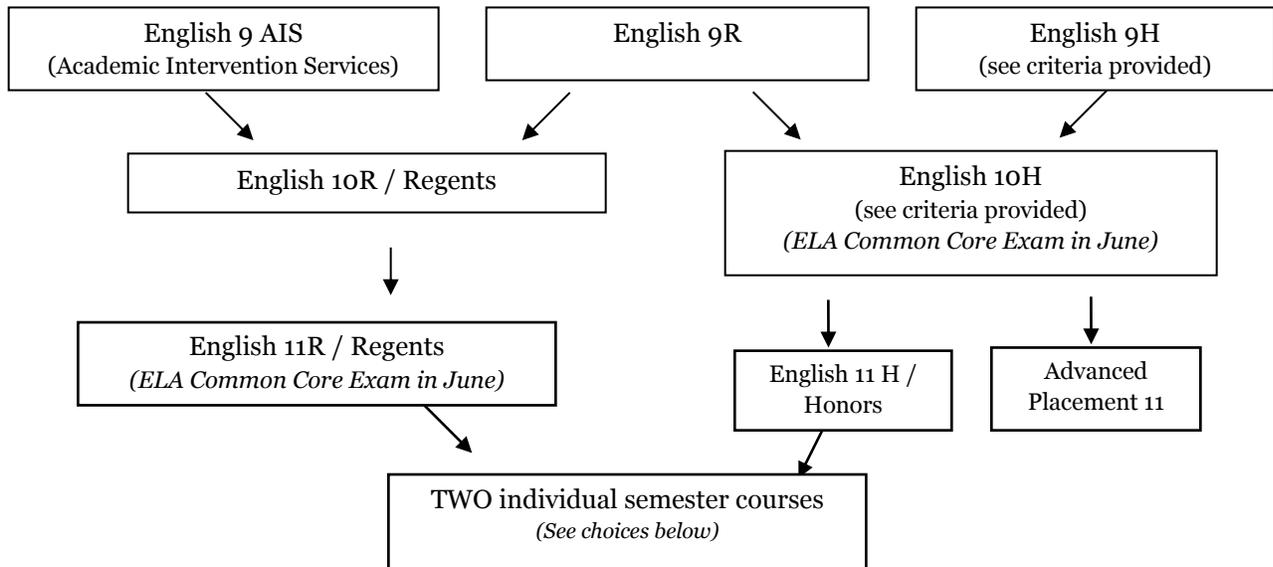
½ Credit

(Grades 10-12)

This college credit-bearing course is designed for students interested in maintaining a healthy lifestyle by exploring the impact of nutrition and physical activity on overall health and wellness. Students will become familiar with the key concepts and components of fitness and wellness, assess their current fitness and wellness status, and design and implement a personal improvement plan. Additional

topics include: health, fitness, and diet trends; nutrition for peak performance; health issues; and quality of life across the lifespan. The selection, preparation, and evaluation of a variety of foods during laboratory experiences will provide students opportunities to apply nutritional concepts learned in class. In addition, students will identify a service-learning project focused on health and wellness that could be implemented in the community. This course is recommended for students who are interested in pursuing a career in the health and human services career fields such as education, physical therapy, medicine, and nutrition, as well as those interested in establishing lifelong wellness. Students who successfully complete this course may earn three college credits through The Sage Colleges for PED 225: Concepts in Fitness and Wellness.

ENGLISH



Senior Course Options

<i>Advanced Placement</i> <i>Introduction to Literature</i> <i>College Prep II</i> <i>College Prep I</i> <i>Practical English</i>	<i>Contemporary Studies</i> <i>Crime in Literature</i> <i>Modern Literature</i> <i>Literature, Culture & Society</i> <i>American Perspectives</i>	<i>Ethics & Contemporary Studies</i> <i>Mythology & Greek Drama</i> <i>Professional Writing</i> <i>Literature of Young Adults</i>
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**Please note that 12R and Practical English are MANDATORY courses for any senior who has not passed the ELA Common Core Exam.*

The English Department is committed to teaching a comprehensive curriculum that meets the needs of all students and complies with the NYS Common Core Regents Standards for English Language Arts. With a particularly strong emphasis on reading and writing, we offer a range of programs that include Remedial, Regents, Honors, and Advanced Placement. Our core program is supplemented by electives such as *Creative Writing*, *Public Speaking*, *Journalism*, *The Play's the Thing*, *SAT Preparation*, and *Classic Roots of English*. The English Department believes that all students should have ample opportunity to become stronger thinkers, readers, writers, speakers and listeners. In an age that is becoming increasingly audio-visual, we are concerned with strengthening basic language arts skills and increasing our students' appreciation for the power and beauty of the written word. The curricula is designed to assist students in developing the literacy skills needed to succeed in both college and careers, and to succeed on the NYS Common Core aligned assessment. This involves close reading of rigorous informational and literary text, digital literacy, grammar, and the study of academic vocabulary.

Note: Literacy research shows that students benefit if they continue to read throughout the summer, so students entering grades 9-11 will be asked to read a book over the summer from a provided reading list. These lists have been designed to include a wide range of interests and abilities, and will be available on the English Department website, from English teachers, and at the local library. All freshmen and sophomores will have an optional summer project that will be due on a scheduled day during the first week of school, for which they will receive credit. Parents are encouraged to participate in the process of selection and to assist students with their choices.

GRADE 9

ENGLISH 9 (AIS)

E9002

40 Weeks

1 Credit

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. This course is intended for students requiring Academic Intervention Services. Placements will be based on the ELA 8 scores and teacher recommendation. Students meet daily in a class that is co-taught by an English teacher and a Reading teacher. Essential reading and writing skills are assessed, areas of concern addressed, and foundations established for mastery of the literary and personal essay. Additionally, practical application of composition skills is an essential component of the course. Language use and vocabulary skills are reinforced and further developed. Out-of-class work in reading and writing (homework) is assigned on a regular basis. Students sit for an extensive final examination in June.

ENGLISH 9-R

E9200

40 Weeks

1 Credit

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. This course is designed to teach skills in reading comprehension, interpretation of literature, composition, grammar, usage, mechanics of language, and vocabulary. Students develop skills in literary response and analysis through critical readings of various literary genres. Essential writing skills are assessed, areas of concern addressed, and foundations established for developing mastery of the literary and personal essay. Additionally, practical application of composition skills is an essential component of the course. Written work comprises a significant percentage of each student's grade, and the course culminates with a final exam. Emphasis will be placed on specific instruction in persuasive, expository and literary writing, as well as research skills. An introduction to research skills will be implemented, and students will become familiar with MLA style and the format of a formal research paper. Language use and vocabulary skills are reinforced and further developed. Changes in the SAT require emphasis on grammar, usage, proofreading and editing skills. Out-of class work in reading and writing (homework) is assigned on a regular basis. Students sit for an extensive midterm and final examination.

ENGLISH 9-H

E9300

40 Weeks

1 Credit

(Note: Students accepted into the Honors curriculum sit for the ELA Common Core Exam the end of their sophomore year.) The curriculum within this course is

aligned with the Common Core State Standards for English Language Arts.

The purpose of this course is to offer the student gifted in English Language and Arts an opportunity for enriched work with short stories, novels, drama, and poetry. Due to the importance of writing and the requirement that all students within the English Honors program successfully pass the ELA Common Core exam with a score of a 90 in their sophomore year, the English 9H program places greater emphasis on the development of expository writing, extensive essays, independent research and creative writing. Students enrolled in this course read a wide range of literature, including *The Scarlet Letter*, *Speak*, and *Great Expectations*, and are expected to participate in class discussions on a consistent basis. Written work comprises a significant percentage of each student's grade, and the course culminates with a final exam. Emphasis will be placed on specific instruction in persuasive, expository and literary writing, as well as research skills. Eighth graders who meet the necessary qualifications are eligible for this challenging course. Criteria: Students must meet or exceed the following criteria: an academic average of 92, demonstration of mastery of skills on the 9-H qualifying exam, and teacher recommendation. In addition, students accepted into the course must successfully complete a summer reading/writing project to be submitted to CHS teachers before the end of the summer. Students intending to continue in the Honors English program must meet or exceed ALL of the following criteria: high academic achievement in 9-H (a cumulative average of 88 or above or a 92 in English 9R), teacher recommendation, and exemplary achievement on the 10-H qualifying exam.

Please note that only two sections of the course will be offered.

GRADE 10

ENGLISH 10-R

E1020

40 Weeks

1 Credit

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. English 10 R reinforces and extends skills and objectives introduced in English 9-R. Requirements for written work, including grammar, usage, spelling and language use, are more demanding. Students experience and learn in-depth analysis of a wider range of literature, including novels, essays, short stories, drama, poetry, and non-fiction. Emphasis continues to be placed on specific instruction in persuasive, expository and literary writing, as well as research skills. Out-of class reading and writing work (homework) is assigned on a regular basis. Changes in the

SAT require emphasis on grammar, usage, proofreading and editing skills. Students prepare for the PSAT/NMSQT exam administered in the fall semester of the junior year. A comprehensive midterm and final exam are within the school year.

ENGLISH 10-H

E1030 40 Weeks 1 Credit

Pre-requisites: Students must meet or exceed ALL of the following criteria: an academic average of 88 indicating excellence in English in 9H or an average of 90 from English 9R, a teacher recommendation, and a successful performance on the departmental qualifying exam. In addition, students accepted into the course must successfully complete a summer reading/ writing project to be submitted to CHS teachers before the end of the summer.

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. A comprehensive study of literature, including a Shakespeare selection, is the background and context for student composition and discussion. Other major works of literature for in-depth analysis include modern novels, drama, poetry, various essays, and short works of fiction. Written work comprises a major percentage of each student's grade. Grammar proficiency, vocabulary power, and language usage skills are points of emphasis. Students are expected to successfully complete a full MLA style research paper, 4 independent reading projects, multiple writing pieces related to the NYS ELA Common Core Regents Examination, creative compositions, personal narratives, and analytical writings detailing literary criticism. Emphasis is placed on making evidence-based claims, engaging in sophisticated analysis, and demonstrating the application of language in ways that are increasingly precise and effective.

English 10H students sit for the ELA Common Core Regents Examination as a final examination in June. Students intending to continue in the honors program for their junior year must meet or exceed ALL of the following criteria: A final academic average of 88 or higher in 10H, a demonstration of mastery on the ELA Common Core Regents Examination, and strong teacher recommendation. Students who wish to proceed to AP level English in their junior year must meet or exceed ALL of the following criteria: A final academic average of 90 or higher in 10H, a demonstration of mastery on the ELA Common Core Regents Examination, and strong teacher recommendation. *Please note that only two sections of the course will be offered.*

GRADE 11

ENGLISH 11-R

E1122 40 weeks 1 Credit

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. This course continues the study of literature, grammar, and composition in preparation for the ELA Common Core Regents Exam. Most students sit for the examination in June of the junior year; some students, after consultation with teacher, guidance counselor and parent, may sit for the exam in January of the junior year. This academic year focuses on critical reading, aesthetic appreciation of selected literature, and refinement of writing skills, including use of MLA style in the research mode. Students read and analyze fiction and non-fiction texts that reflect essential themes in American literature, and continue writing in a variety of genres. Students are expected to develop writing skills which demonstrate: clear and appropriate focus, logical and coherent structure, precise and engaging language, varied sentence structure, and correct application of the conventions of Standard Written English. Emphasis is placed on making evidence-based claims and engaging in close reading to analyze texts at a sophisticated level. Students also engage in challenging activities which develop vocabulary, critical reading, and writing on-demand skills essential for success on the College Board SAT Reasoning Test administered in the spring of junior year.

ENGLISH 11-H

E1130 40 Weeks 1 Credit

Pre-requisites: Students must meet or exceed ALL of the following criteria: an academic average of 88 or higher in 10-H or an average of 92 or higher in 10R, demonstration of mastery on the ELA Common Core Exam, and teacher recommendation. In addition, students accepted into the course may be asked to successfully complete a summer reading/writing project to be submitted to CHS teachers before the end of the summer.

The curriculum within this course is aligned with the Common Core State Standards for English Language Arts. This course extends the study and analysis of literary genres encountered in 10-H. Students develop deep appreciation for the craft and philosophies of a wide variety of American authors. Students identify and practice stylistic approaches essential to quality expository, literary, critical, and persuasive writing. Oral and written expression is enhanced through advanced vocabulary, grammar, and Greek and Latin roots study. A broad and structured supplementary reading program expands each

student's perspectives and increases his/her self-understanding of the human condition. An author-analysis project serves as the final exam for the course. Qualified 10th graders are eligible for this challenging course. Students intending to continue in the honors program have two options: Advanced Placement English or Introduction to Literature (H). Students must demonstrate academic excellence in 11-H (an academic average of 88) and receive teacher recommendation to enroll in either course.

Please note that only one section of this course will be offered.

ENGLISH 11 AP – LANGUAGE & COMPOSITION

E1125 40 Weeks 1 Credit

Pre-requisites: Students must meet or exceed ALL of the following criteria: an academic average of 90 in 10H, or an average of 92 or higher in 10R, demonstration of mastery on the ELA Common Core Exam, and 10th grade English teacher recommendation. In addition, students accepted into the course must successfully complete a summer reading/writing project to be submitted to CHS teachers at the beginning of the school year.

This AP English Language and Composition course is designed to help students become both skilled readers of writing in a variety of rhetorical contexts and skilled writers who compose for a variety of purposes. The purpose is to enable students to read complex texts with understanding and to write prose of sufficient richness and complexity to communicate effectively with mature readers. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. An AP test is given in early May. Students must have excelled in English 10H and have an English teacher's recommendation to be eligible for this course.

Sophomores who meet the necessary qualifications are eligible for this challenging course. Students intending to continue in the AP or Honors program have two options: Advanced Placement English or Introduction to Literature (H). Students must demonstrate academic excellence in 11-AP (an academic average of 88) and earn teacher recommendation to enroll in either course.

Please note that only one section of the course will be offered.

GRADE 12 **ENGLISH 12 CORE OPTIONS**

Students in their final year of high school English fulfill their Senior English requirement by choosing one class from the Literature category of classes and one from the Writing category. These courses are specifically designed to prepare students for their post-high school choices, and students are encouraged to choose the courses that they will personally find most beneficial for their future educational or career goals.

WRITING COURSES (Students should choose ONE of the following):

English 12 Advanced Placement (Lit & Language)
Introduction to Literature
College Preparatory II
College Preparatory I
Practical English
Professional Writing
English 12R (*mandatory for students who have not successfully passed the 11th grade ELA Common Core Exam*)

LITERATURE COURSES (Students should choose ONE of the following):

American Perspectives
Contemporary Studies
Crime in Literature and Modern Society
Ethics and Contemporary Studies
Literature, Culture and Society
Literature of Young Adults
Modern Literature
Mythology and Greek Drama
Shakespeare and Early British Literature

Advanced Placement

ENGLISH 12 AP – LITERATURE & LANGUAGE

E1225 40 Weeks 1 Credit

Prerequisites: Students must have excelled (88+ GPA) in English 11 Regents, English 11 Honors or 11 AP, received a recommendation from their junior English teacher, and completed the 12 AP summer reading project, which involves a close reading of an assigned major work, to be eligible for this course.

This AP course will emphasize the higher language proficiencies by engaging students with the important literature of western civilization. Critical thinking skills will also be emphasized, as will the development of language skills for writing and for reading sophisticated literature. Students are expected to read and write for

interpretation and evaluation purposes and to apply their learning from context to context. Readings are frequent and extensive; objective test question exams and predominantly in-class writing assignments are given; and class participation is expected. Students will take the AP Exam offered by the College Board in mid-spring. A Senior research paper is required.

12th GRADE WRITING COURSES

English 12 Advanced Placement (Lit & Language)
Introduction to Literature
College Preparatory II
College Preparatory I
Practical English
Professional Writing
English 12R (*mandatory for students who have not successfully passed the 11th grade ELA Common Core Exam*)

INTRODUCTION TO LITERATURE H (CHSP-Siena College 3 credits)

E1240 20 Weeks ½ Credit

Prerequisites: A minimum average of 88% in English 11H/11AP or as minimum of 90% in 11R and recommendation of previous English teacher.

This one-semester collegiate course offers students practice in critical thinking, reading, responding to, and analyzing a wide variety of literature. Because the course is writing-intensive, students will gain experience in writing and revising critical essays about literature. Readings will include literature from diverse classic and contemporary authors, as well as various literary genres, with a primary focus on short fiction, the novel, the drama, and poetry. Students enrolled in the course must agree to Siena College course policies, which include registration and monetary fees paid to the college. At the course's completion, students who successfully meet the academic requirements will receive three (3) credits through Siena College.

Please note that only two (2) sections of this course will be offered.

COLLEGE PREPARATORY ENGLISH II 12R

E1214 20 Weeks ½ Credit

This course is recommended for students planning to continue their education at a four-year college. The first part of the course focuses on composition and research skills culminating in a research paper formatted in MLA style. Students will practice developing coherence, emphasis and concreteness in written expression. Critical reading of selected essays is designed to sharpen analytical skills. Literature will include Shakespeare's *Hamlet*. A research paper is the final exam worth 20% of the course grade.

COLLEGE PREPARATORY ENGLISH I R

E1205 20 Weeks ½ Credit

The course is designed for students who have passed the ELA Common Core Exam and successfully plan to enroll at two-year colleges or in technical training programs. The purpose is to acquaint students with library research skills, methods of writing and preparing a research paper, and skills of literary analysis. Each student is required to complete a variety of research assignments, including an oral presentation. The course also includes discussions and analysis of poetry, drama, and the short story. Several short analysis papers will be required. The final research project is 20% of the final course grade.

PRACTICAL ENGLISH R

E1201 20 Weeks ½ Credit

The focus of this course is thoughtful and careful reading and writing, necessary skills for gaining and sharing information that has practical application in the work place and in a modern society. By reading and discussing a variety of works, including novels, dramas, short fiction, essays, and newspapers, students learn how to understand different writing styles and gain insight into human behavior. Students will understand how the various forms of writing are constructed and critique the characteristics of each, while learning how to compose a succinct portfolio of samples. Students will learn the writing techniques important in the business and technical environment, as well as evaluate professional situations, determine the best textual format for purpose and audience, and create documents using collaborative electronic tools. Student-written analysis and interpretation of these works, as well as writing assignments based on classroom discussions, films, and life experiences, are thoroughly reviewed and revised in order to increase competency in the language arts.

ENGLISH 12-R

E1212 20 Weeks ½ Credit

This course is designed for students who have not earned a grade of 65 on the ELA Common Core Examination, and is designed to prepare students to be capable and confident readers and writers. Reading, writing, listening and speaking skills are extended through a wide range of ELA activities. Students will develop their understandings of different writing styles and gain further insight into human behavior through reading, experiencing and discussing a variety of works (novels, dramas, short fiction, and non-fiction essays), as well as exploring mass media. An analysis of performance on the ELA Common Core Exam

will be included as part of an educational plan for each student. Since the course is intended to meet two instructional goals, there is, of necessity, a strong emphasis on instruction that is individualized and differentiated. The January Regents Examination is 20% of the first semester final average for those students who must sit for the exam.

12th GRADE LITERATURE COURSES

AMERICAN PERSPECTIVES

E1340 20 Weeks ½ Credit
(Grades 10-12)

The course seeks to deepen students' appreciation and understanding of the American experience as viewed through the eyes of the lesser heard voices of our country. The often overlooked or misunderstood perspectives of the many communities within our country will be explored, with a focus on the differences and commonalities among groups of people and individuals based on ethnicity, race, socioeconomic status, gender, sexual orientation, and religion. The value of diversity will be developed, as will language for social interaction, as students discuss and write about issues that are deeply felt and often misunderstood. Reading and dramatic presentations will emphasize the wide variety of voices which make up contemporary American society. The use of multiple genres is especially appropriate, as are readings and media productions on the history and culture of diversity in America. *Please note that this course deals with sensitive and sometimes controversial topics.*

CONTEMPORARY STUDIES 12R

E1208 20 Weeks ½ Credit

Contemporary Studies is a literacy course designed to enable students to recognize the power of various texts (literature and non-fiction) and mass media. Students will demonstrate the ability to process, interpret and act in a knowledgeable manner on messages depicted through various sources of print and visual media. Students prepare written analyses of advertisements, films, television productions, internet content and broadcast news. This course is recommended to pair with College Prep I.

CRIME IN LITERATURE & MODERN SOCIETY

E1345 20 Weeks ½ Credit

In this course, students will examine the behaviors that trigger some of the most notorious crimes and criminals in literature as well as history, in addition to the detective techniques used to track and capture them. In addition to reading a variety of texts, both fiction and non-fiction, students will write for multiple purposes in which they

analyze the motives, actions and reactions of literary criminals, as well as explore criminal events in various time periods and cultures. This course will also contain a research component, in which the students will investigate a notorious crime, covering all facets of the American justice system and their impact on our culture. This course is recommended to pair with College Prep II, College Prep IIIH (Think Thank), and AP English 12.

LITERATURE, CULTURE AND SOCIETY 12R

E1207 20 Weeks ½ Credit

This course engages students in critical analysis of various forms of literature and print media in an effort to successfully develop media literacy. Students will demonstrate understanding of how various mediums are constructed and critique the effects they have on our world. An assortment of fictional short stories will serve to satirize America's corporate media system, and two allegorical and dystopian novels (*Jennifer Government* by Max Barry and *Feed* by M.T. Anderson) will be read and analyzed with a focus on fully understanding modern American culture and society. The course will culminate with a project on human happiness as viewed through multiple cultural and societal lenses.

This course is recommended for Honors and AP level students.

LITERATURE OF YOUNG ADULTS R

E1206 20 Weeks ½ Credit

This course offers students the opportunity to develop an understanding of the complex issues facing young adults through a variety of diverse and contemporary genres. This course will focus on an analysis of the varied pieces through assignments that help foster students' reading, writing, listening, and speaking skills, while also focusing on collaborative thought and work within groups. It is recommended that students have an appreciation for reading!

MODERN LITERATURE 12R

E1215 20 Weeks ½ Credit

This course concentrates on various types of 20th century literature with a focus on the role of the individual in society and his or her quest to discover his or her place in the world. Throughout the course, students are expected to analyze short stories, poetry, and novels for their deeper meaning, as well as discover the ways in which the authors use various techniques to evoke emotion from readers - a major component of modern writing. Students are expected to actively participate in class discussions and debates about the major assigned works, as well as complete

several short analytical papers. There will also be opportunities for students to read and analyze the work of contemporary writers of their choice.

MYTHOLOGY AND GREEK DRAMA 12 R

E1218 20 Weeks ½ Credit

This course will focus on Greek Drama and Mythology. Through the study of the Trojan War as depicted in the *Iliad*, as well as the aftermath of this event as told through classical Greek drama, students will analyze the hero archetype in regards to contemporary society. Students will also explore the influence of mythology on modern culture including topics of war, bravery, revenge and loyalty. Works read will include Edith Hamilton's *Mythology*, Homer's *Iliad*, as well as excerpts from *The Odyssey* and Virgil's *Aeneid*.

SHAKESPEARE AND EARLY BRITISH LITERATURE 12R

E1219 20 Weeks ½ Credit

(Please note that this course will not be offered in 2020-21).

This course studies English Literature from its beginnings through Shakespeare. Readings may include the early folk epic, Chaucer's *Canterbury Tales*, and special emphasis on the sonnets and plays of Shakespeare. Students are expected to participate in class discussion and oral and written interpretation. Writing assignments will emphasize short analytical papers. A major project could involve a research paper or staging of scenes from Shakespeare.

ENGLISH ELECTIVES

In addition to the Core offerings specified above, the department will continue to offer electives as follows:

1. Journalism (Grades 10-12)
2. Creative Writing and Poetry (Grades 10 – 12)
3. Public Speaking (Grades 10-12)
4. SAT Preparation (Grades 10-11)
5. The Play's The Thing (Grades 10 – 12)

CREATIVE WRITING AND POETRY

E1221 20 Weeks ½ Credit

(Grades 10-12)

This course will provide the creative student with an opportunity for self-expression in prose and poetry. The emphasis will be on imaginative writing as an intense human activity, and students will write and discuss their own work as well as the work of others. Student work will

be offered for publication in Columbia's student publication, the *Labyrinth*, and students will be expected to participate in the department's annual Poetry Slam in the Spring Semester.

PUBLIC SPEAKING

E1309 20 Weeks ½ Credit

(Grades 10-12)

This course is designed to improve students' speech in everyday life. Speeches are prepared, presented and critiqued. Time is devoted to the study of research skills and organization of material, as well as to the craft of writing for an audience. Reading assignments from text and classroom lectures provide a basis for developing desirable speaking skills. A study of voice, diction, vocabulary and other tools of speech are stressed. At the end of the course, there will be a 5-6 minute final speech to evaluate speaking skills.

JOURNALISM

E1213 20 Weeks ½ Credit

(Grades 10 - 12)

Journalism is an elective course open to any student in Grades 10-12 and provides students with an opportunity to study journalism as a form of written expression. It meets for one semester and may be taken in addition to a regular English course. The course is designed for any student interested in the field of communication arts. Students will learn the basics of writing the news, gathering facts from sources, evaluating facts for inclusion in stories, the various sections of newspapers, and how stories are assigned, researched, and incorporated in each type of medium. Time will be spent recognizing and analyzing the distinctive forms of journalistic writing: straight news stories, feature stories, editorials, and sports stories. Students will also be provided ample practice in each of these forms. Other areas covered in the course include TV news, ethics in journalism, and headline writing. It is expected that before the conclusion of the course, students will write articles and headlines suitable for submission to the school newspaper, the *Devils' Advocate*. A final project or exam will be a component of the final average. Ninth grade students should have the endorsement of their English teachers.

SAT VERBAL PREPARATION

E1320 20 Weeks ½ Credit

(Grades 10 & 11)

While high school grades are obviously a useful indicator of how students will perform in college, there is great variation in grading standards and course rigor within and across high schools. Today, the SAT is the benchmark

standardized assessment of the critical reading, mathematical reasoning, and writing skills students have developed over time and that they need to be successful in college. This one-semester course offers intensive preparation for the verbal section of the SAT Reasoning Test, along with knowledge of what the exam measures, how it is developed, and how to best prepare for the exam. The course emphasizes vocabulary growth, development of critical reading skills, and proficiency in writing standards. Students will practice and master proven test-taking strategies.

INTRODUCTION TO VIDEO GAME DEVELOPMENT

A1115 40 Weeks 1 Credit
(Grades 10-12)

Looking to have fun while building lifelong skills? In this new and exciting, full-year, multidisciplinary course, students will learn game theory, build original games, and explore careers in the video game industry. Open to all talents and experience levels (grades 10-12), students will engage in collaborative, hands-on projects covering illustration and graphic design, narrative writing, computer coding/programming, and more! Industry mentors will visit to share their experience, academic background, and career paths. Whether creatively or analytically-minded, master skills applicable to all careers and engage in meaningful learning experiences of student interest and enjoyment!

THE PLAY'S THE THING/SHAKESPEAREAN WORKS

E1309 20 Weeks ½ Credit
(Grades 10-12)

Please note that this course will not be offered in 2020-21.

This is a course for those who love theater and become excited when a play is being handed out in English class. It will offer opportunities to stage and direct scenes, practice oral interpretation, and explore theater criticism. Let's read plays, watch performances, engage in staging some of our own skits, and thoroughly enjoy how theater is the best medium in English. We will read classics, including one of Shakespeare's plays, select some favorite American playwrights to study, and students will be presented with options for some modern and/or unusual styles. You decide what to read and enjoy! It is a great opportunity for the English student who loves the theater, and for those who consistently participate in class. This course may be repeated by juniors and seniors since the works studied can change on a yearly basis. Opportunities will be available to view theatrical shows in local theaters during the school day and the evening.

CLASSIC ROOTS OF ENGLISH

E1230 20 Weeks ½ Credit
(Grades 10 - 12)

Please note that this course will not be offered in 2020-21.

This course focuses on the evolution of the English language through a detailed look at its Latin and Greek origins. Special emphasis will be placed on cracking the code behind the English vocabulary through an in depth look at Latin and Greek roots, prefixes and suffixes. Exploration of the building blocks of scientific, medical, literary, military, government and law related terminology will serve to prepare students for select careers. Additionally, students will explore aspects of Roman and Greek culture such as government, law philosophy, art, architecture, and literature and develop an understanding of how modern language and culture evolved within these realms.

A WOMAN'S POINT OF VIEW R

E1330 20 Weeks ½ Credit
(Grades 11 - 12)

Please note that this course will not be offered in 2020-21.

This course explores the unique perspective women writers bring to imaginative literature. Readings explore the nature and status of women in society and the special strategies that women have developed to cope with prejudice, stereotyping, and the struggle for equality in a male world. Rather than focusing exclusively on feminist themes, the course seeks to discover the special vision that women writers bring to our idea of humanity. Authors will include: The Bronte Sisters, Virginia Wolf, Flannery O'Connor, Sue Miller, Alice Walker, Toni Morrison, Joyce Carol Oates, Katherine Ann Porter and others.

WORLD LANGUAGES

The Foreign Language Department offers a sequential program of study grades 7-12. French, Spanish and German are all taught at the Regents level.

All students will need one high school credit in Foreign Language in order to graduate. This can be earned either by receiving a passing score on the Local Proficiency Test at the end of eighth grade, or successfully passing a high school level foreign language class. Students entering grade 9 who earned a passing average in foreign language and also passed the proficiency exam in eighth grade will enroll in Level II for the same language, or Level I for a new language, if they would like to begin a new sequence of language study.

Students take the Local Regents Exam at the end of Level III. With successful completion of Level III and a passing score on the Local Regents Exam in the second language, students can elect post-Regents classes: Level IV H and Level V H. These classes are taught as part of the *College in the High School Program*. For a modest tuition fee, these students can earn up to 3 college credits per year of study at Columbia High School. All offerings are full-year courses for one unit of high school credit.

FRENCH

FRENCH LEVEL II

LFRII 40 Weeks 1 Credit

Pre-requisite: Passing average in French Level I R and passing grade on local proficiency exam.

This course builds on the foundations developed in French Level I R. Vocabulary, structures, and cultural knowledge are reviewed and expanded. All four language skills will be emphasized, with a focus on further developing practical communication skills in the target language. Students would need one full year of previous study in French to be successful in this course.

FRENCH LEVEL III R

LFRIII 40 Weeks 1 Credit

Pre-requisite: Passing average in French Level II R.

This course expands communication skills developed in the two previous levels and prepares students to take the Local Regents Exam in French at the completion of the course. Students would need at least two full years of previous study in French to be successful in this course.

FRENCH LEVEL IV H (CHSP- HVCC 3 credits)

LFRIV 40 Weeks 1 Credit

Pre-requisite: Passing average in French Level III R. A passing score of 80 or better on the Local Regents exam is recommended.

This class offers a review and extension of grammar and concentrates on activities to help students reach high intermediate competency in French in the four skill areas of reading, writing, listening and speaking. The course includes the study of selected readings and cultural topics in French. Class is conducted primarily in French.

Students may receive 3 college credits through HVCC for FREN 200 French Language and Culture III

FRENCH LEVEL V H (CHSP- HVCC 3 credits)

LFRV 40 Weeks 1 Credit

Pre-requisite: Passing average in French Level IV H.

This class is an extension of higher level grammar and concentrates on activities to help students reach high intermediate competency in French in the four skill areas of reading, writing, listening and speaking. The course includes the study of a variety of French literary selections and cultural topics. Class is conducted primarily in French.

Students may receive 3 college credits through HVCC for FREN 201 French Language and Culture IV

GERMAN

GERMAN LEVEL II R

LGRII 40 Weeks 1 Credit

Pre-requisite: Passing average in German Level I R and passing grade on local proficiency exam.

This course builds on the foundations developed in German Level I R. Vocabulary, structures, and cultural knowledge are reviewed and expanded. All four language skills will be emphasized, with a focus on further developing practical communication skills in the target language. Students would need one full year of previous study in German to be successful in this course.

GERMAN LEVEL III R

LGRIII 40 Weeks 1 Credit

Pre-requisite: Passing average in German Level II R.

This course expands communication skills developed in the two previous levels and prepares students to take the Local

Regents Exam in German at the completion of the course. Students would need at least two full years of previous study in German to be successful in this course.

GERMAN LEVEL IV H (CHSP SUNY Oswego 3 credits)

LGRIV 40 Weeks 1 Credit

Pre-requisite: Passing average in German Level III R. A passing score of 80 or better on the Local Regents exam is recommended.

In this post-Regents course students will use their previously acquired language skills to gain greater awareness and understanding of the German culture. Through projects, video, films, research and readings, students will better appreciate the people, life styles, arts, historical influences and literature of German-speaking countries.

Students may receive three college credits through SUNY Oswego for GER 201 Intermediate German

GERMAN LEVEL V H (CHSP SUNY Oswego 3 credits)

LGRV 40 Weeks 1 Credit

Pre-requisite: Passing average in German Level IV H.

This post-Regents course continues to explore the uniqueness of the German culture through student projects, research, readings, video and film. Emphasis is on advanced communication skills.

Students may receive three college credits through SUNY Oswego GER 201 for Continuing Intermediate German

SPANISH

SPANISH LEVEL I R

LSPI 40 Weeks 1 Credit

This is a Spanish course designed for those students new to foreign language study, students who want to begin another foreign language, or students who need to repeat Spanish Level I R. Students will develop a strong foundation of basic vocabulary in the target language, as well as develop a beginning proficiency in the four communication skills of speaking, listening, reading, and writing. Exposure to the Spanish and Hispanic cultures will be integrated throughout the course.

SPANISH LEVEL II R

LSPII 40 Weeks 1 Credit

Pre-requisite: Passing average in Spanish Level I R and passing grade on local proficiency exam.

This course builds on the foundations developed in Spanish

Level I R. Vocabulary, structures, and cultural knowledge are reviewed and expanded. All four language skills will be emphasized, with a focus on further developing practical communication skills in the target language. Students would need one full year of previous study in Spanish to be successful in this course.

SPANISH LEVEL III R

LSPIII 40 Weeks 1 Credit

Pre-requisite: Passing average in Spanish Level II R.

This course expands communication skills developed in the two previous levels and prepares students to take the Local Regents Exam in Spanish at the completion of the course. Students would need at least two full years of previous study in Spanish to be successful in this course.

SPANISH LEVEL IV H (CHSP-HVCC 3 credits)

LSPIV 40 Weeks 1 Credit

Pre-requisite: Passing average in Spanish Level III R. A passing grade of 80 or better on the Local Regents exam is recommended.

Spanish IV H offers a review and extension of language structure and concentrates on improving grammar, vocabulary and fluency in the four skill areas of reading, writing, listening and speaking. The course includes the study of selected readings and cultural topics in Spanish. Class is conducted primarily in Spanish.

Students may receive three college credits through HVCC for SPAN 200 Spanish Language and Culture III.

SPANISH LEVEL V H (CHSP-HVCC 3 credits)

LSPV 40 Weeks 1 Credit

Pre-requisite: Passing average in Spanish Level IV H.

Spanish VH offers further extension of higher level Spanish grammar and concentrates on readings and activities to help students reach high intermediate competency in the four skill areas of reading, writing, listening and speaking. The course includes the study of a variety of Spanish literary selections and cultural topics. Class is conducted primarily in Spanish.

Students may receive three college credits through HVCC for SPAN 200 Spanish Language and Culture III.

HEALTH EDUCATION

HEALTH EDUCATION-R

HLTH

20 Weeks

½ Credit

(Grades 10-12)

A ½ credit in Health Education is required for graduation.

Topics covered in the course of study are:

WELLNESS

Emphasis is upon having a positive attitude and assisting students in becoming their best selves.

ALCOHOL, DRUGS and TOBACCO PREVENTION

The consequences of alcohol, drug, and tobacco use are taught from psychological and sociological perspectives. This unit includes basic instruction in the pharmacology of drugs.

FAMILY EDUCATION and PARENTING

A study of adolescent conflicts, peer relationships, family relationships, parenting, masculinity and femininity, human sexuality, STDS and HIV/AIDS are all components in this unit.

NUTRITION and PHYSICAL FITNESS

This unit includes the science of food and its effects on the body. The importance of regulating the amounts of nutrients, proper diet and physical fitness are discussed.

AMERICAN RED CROSS – ADULT CPR/AED WITH INFANT AND CHILD CPR

All Health students are required to successfully complete the American Red Cross – Adult CPR/AED with Infant and Child CPR. This includes instruction and successful performance testing of artificial respiration, artificial circulation, and the clearing of an obstructed airway, students must also demonstrate how to properly utilize an automatic external Defibrillator (AED). Students will also be instructed and tested on the proper techniques for CPR on Infants and Children.

LITERACY LAB

Literacy Lab is an Academic Intervention Service (AIS) required by the NYS Department of Education for students who score below the State designated performance level on one or more of the State assessments or are determined to be at risk of not achieving Federal and State Common Core learning standards.

NOTE: Students are assigned through the Guidance Office in consultation with the Reading Department and other instructional staff.

LITERACY LAB

L9001	9 th Grade Literacy Course ½ credit
L9002	10 th Grade Literacy Course ½ credit
L9003	11 th Grade Literacy Course ½ credit
L9004	12 th Grade Literacy Course ½ credit

These courses focus on the literacy skills necessary for academic success and are aligned with the Federal and State Common Core learning standards. Instruction may include strategies to develop the following skills: academic language and vocabulary, content area reading comprehension for literature and informational texts, and writing strategies that address a variety of purposes. Students must continue in the program until they pass the appropriate local and state evaluations.

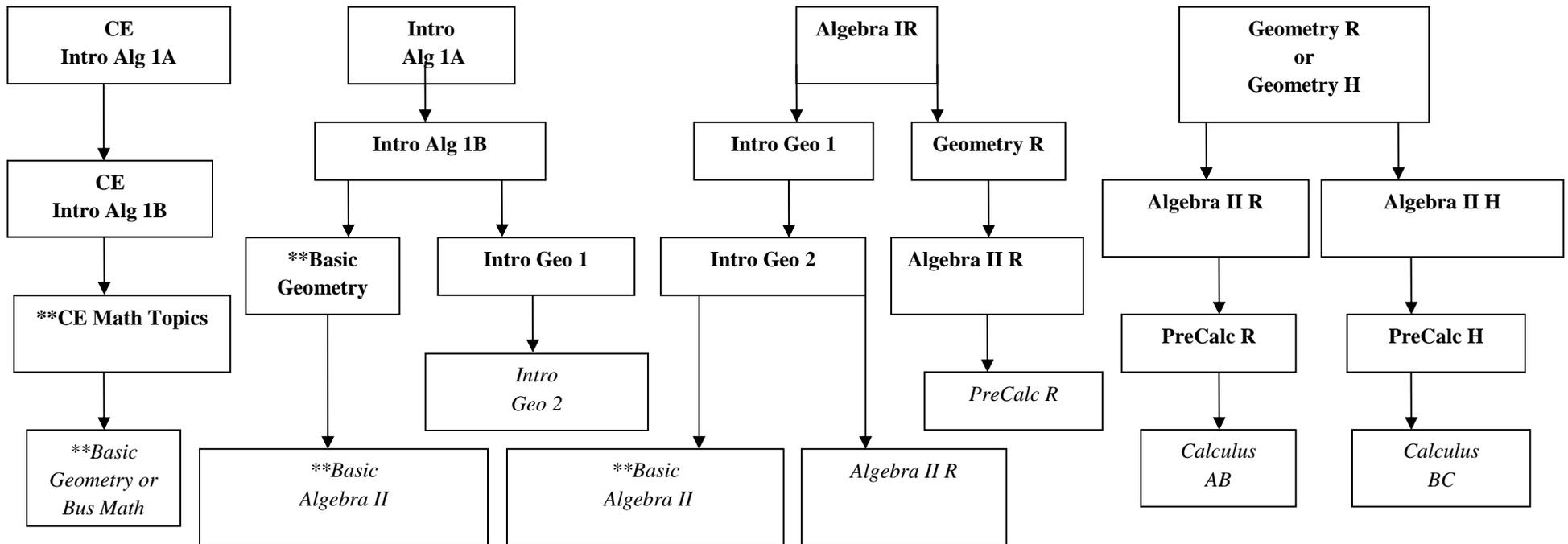
MATHEMATICS

First block represents courses for students entering 9th grade

Courses in BOLD are required for graduation credits

Courses in italics are 3rd and/or 4th year electives

The chart below represents possible pathways for students to complete courses in mathematics. Other pathways are possible.



**** Courses denoted as “basic” do not lead to a Regents exam.**

Students must pass ALL 3 (Common Core) Regents exams (Algebra I, Geometry, and Algebra II) in order to obtain an Advanced Designation Regents Diploma

In addition, the Mathematics Department offers the following electives: Introduction to Probability and Statistics, Introduction to Computer Science, and Computer Programming

The New York State Regents examinations (Algebra I, Geometry, and Algebra II) **REQUIRE** the exclusive use of a graphing calculator for each student. Sets of graphing calculators are available for student use during class, however, it is **STRONGLY RECOMMENDED** that students purchase their own graphing calculator. The use of the calculator at home allows the student to further practice concepts and to gain familiarity with the calculator functions. These graphing calculators will be used throughout your child's high school math program as well as in many college courses.

All students must earn a minimum of three credits in mathematics; a Regents examination in mathematics must be successfully completed.

DIPLOMA OPTIONS:

(A) Regents Diploma – 3 math credits and successful completion of the Algebra I (Common Core) Regents.

Introduction to Algebra IA Grade 9
 Introduction to Algebra IB Grade 10
 (Algebra I (Common Core) Regents taken in June)
 Basic Geometry (or math elective) Grade 11

(B) NYS Regents with Advanced Designation Diploma – 3 math credits and **successful completion of the Algebra I (Common Core), Geometry (Common Core) and Algebra II (Common Core) Regents.**

Algebra I Grade 9
 Geometry Grade 10
 Algebra II Grade 11

INTRODUCTION TO ALGEBRA IA-R

MALG1 **40 weeks** **1 Credit**

This course will follow the Common Core State Standards for Mathematics for the Algebra I curriculum. This course will help students acquire basic manipulative algebraic skills as well as apply those skills in real world settings. The topics include: fractions, exponents, equations, factoring and graphing a variety of functions. This is the first year of a two year course of study.

INTRODUCTION TO ALGEBRA IB-R

MALG2 **40 weeks** **1 Credit**

This course is a continuation of Introduction to Algebra IA with an emphasis on building algebraic skills. Integrated in the course will be: statistics, functions, solving and graphing quadratic equations, exponential functions and systems of equations. Upon completion of the course,

students will be eligible for the Algebra I (Common Core) Regents exam which is a graduation requirement.

ALGEBRA I-R

MALG **40 weeks** **1 Credit**

This one year course will follow the Common Core State Standards for Mathematics for the Algebra I curriculum. This course will help students acquire important algebraic skills as well as apply those skills to real world settings. Topics will include: polynomials, equations, inequalities, linear models, functions and statistics. Upon completion of the course, students will be eligible for the Algebra I (Common Core) Regents exam which is a graduation requirement.

CE MATH TOPICS

CEM320 **40 weeks** **1 credit**

Pre-requisite: The successful completion of coursework leading up to the NYS Algebra I (Common Core) Regents exam.

This one-year course is a continuation of the Curriculum Equivalent Algebra IA & Algebra IB courses with an emphasis on providing students with practical, real-world knowledge and skills related to mathematics and their applications after graduation. The content included will prepare students to be both college and career ready, as well as contain content that is included in the New York State P-12 Common Core Learning Standards/Next Generation Learning Standards for Mathematics. Integrated into the course will be various aspects of geometry, financial literacy, modeling, and probability. Additionally, career exploration, opportunities to develop awareness of future careers and exposure to mathematical concepts that all individuals encounter will be included. Students enrolled in this course will take a school final examination that will assess authentic math skills needed for success in college and the workforce and transferable mathematics skills relevant to their lives after graduation.

BASIC GEOMETRY - R

MGEOB **40 weeks** **1 Credit**

Pre-requisite: The successful completion of coursework leading up to the NYS Algebra I (Common Core) Regents exam.

This one-year course will include select topics aligned with the Common Core State Standards for Mathematics for Geometry. An emphasis will be placed on using algebra to solve geometric problems. Additional units of studies include logic proofs, quadrilaterals and circles. This course is designed primarily for students who have successfully completed Introduction to Algebra IA and Introduction to

Algebra IB. Students enrolled in this course will not take the Geometry (Common Core) Regents exam, but will take a school final examination.

INTRODUCTION TO GEOMETRY I – R

MGEO1 40 weeks 1 Credit

Pre-requisites: Passing grade on the NYS Algebra I (Common Core) Regents exam AND Teacher Recommendation

This course will follow the Common Core Standards for Mathematics for the Geometry curriculum. This course will help students acquire important geometric skills as well as apply those skills to real world settings. Topics will include: geometric proofs, geometric constructions, triangle congruence, equations of lines, transformations in the coordinate plane and parallel lines. This is the first of a two year course of study.

INTRODUCTION TO GEOMETRY II – R

MGEO2 40 weeks 1 Credit

Pre-requisite: Passing grade in Introduction to Geometry I

This course is a continuation of Introduction to Geometry I with an emphasis on building geometric skills. Topics will include: geometric proofs, geometry of the circle, proportions, similarity, quadrilaterals, constructions and geometry of three dimensions. Upon completion of the course, students will be eligible for the Geometry (Common Core) Regents exam.

GEOMETRY – R

MGEO R 40 weeks 1 Credit

Pre-requisites: Minimum final average of 70% in Algebra IR AND a passing grade on the NYS Algebra I (Common Core) Regents exam AND Teacher Recommendation

This one-year course will follow the Common Core Standards for Mathematics for the Geometry curriculum. This course will help students acquire important geometric skills as well as apply those skills to real world settings. Topics will include: geometrics proofs, congruence, similarity, right triangles, trigonometry, circles, expressing geometric properties with equations, modeling with geometry and geometric measurement and dimension. Upon completion of this course, students will be eligible for the Geometry (Common Core) Regents exam, which is one of the requirements for an Advanced Regents Diploma.

GEOMETRY – H

MGEOH 40 weeks 1 Credit

Pre-requisites: Minimum final average of 90% in Algebra I accelerated course OR Minimum final average of 90% from Algebra IR AND Teacher Recommendation

Due to the introduction of the Common Core Learning

Standards at the high school level, all students who wish to enter the Honors Program at Columbia High School will also be required to take a qualifying exam, which will be a component used for consideration for course entrance.

This one-year course will follow the Common Core State Standards for Mathematics for the Geometry curriculum, many in greater depth and also will include advanced topics in geometry. Increased emphasis will be placed on explanations and justifications of procedures and thought processes. The students will complete honors assignments that will include challenging problem sets. This course will help students acquire important geometric skills as well as apply those skills to real world settings. Topics will include: geometric proofs, congruence, similarity, right triangles, trigonometry, circles, expressing geometric properties with equations, modeling with geometry and geometric measurement and dimension. Upon completion of this course, students will be eligible for the Geometry (Common Core) Regents exam, which is one of the requirements for an Advanced Regents Diploma.

BASIC ALGEBRA II-R

MTRGB 40 weeks 1 Credit

Pre-requisite: Successful completion of a geometry course

This one-year course will include select topics aligned with the Common Core Standards for Mathematics for the Algebra II curriculum. An emphasis will be placed on enhancing the students' algebraic skills and giving the student a solid foundation in the basic principles of trigonometry. Other topics will include: polynomials, functions, rational expressions, radicals, complex numbers, systems of equations, families of graphs and exponential and logarithmic functions and equations. Students enrolled in this course will not take the Algebra II (Common Core) Regents Examination, but will take a school final examination.

ALGEBRA II-R

MTRGR 40 weeks 1 Credit

Pre-requisites: Minimum final average of 70% in Geometry R AND a passing grade on NYS Geometry Regents Exam AND Teacher Recommendation

This one-year course will follow the Common Core Standards for Mathematics for the Algebra II curriculum. This course will help students expand their algebraic skills as well as apply these skills to real world settings. Topics will include: real number system, complex number system, polynomials and rational expressions, reasoning with equations and inequalities, interpreting categorical and quantitative data, conditional probability and the rules of

probabilities, interpreting functions, trigonometric functions and linear, quadratic and exponential models. Upon completion of the course, students will be eligible for the Algebra II (Common Core) Regents Exam, which is one of the requirements for an Advanced Regents Diploma.

ALGEBRA II-H

MTRGH 40 weeks 1 Credit

Pre-requisites: Minimum final average of 85% in Geometry H OR Minimum final average of 90% in Geometry R AND a passing grade on NYS Geometry Regents Exam AND Teacher Recommendation

This one-year course will follow the Common Core Standards for Mathematics for the Algebra II curriculum, many in greater depth. Increased emphasis will be placed on explanations and justifications of procedures and thought processes. The students will complete honor assignments that will include challenging problem sets. This course will help students expand their algebraic skills as well as apply these skills to real world settings. Topics will include: real number system, complex number system, polynomials and rational expressions, reasoning with equations and inequalities, interpreting categorical and quantitative data, conditional probability and the rules of probability, interpreting functions, trigonometric functions and linear, quadratic and exponential models. Upon completion of the course, students will be eligible for the Algebra II (Common Core) Regents Examination, which is one of the requirements for an advanced Regents Diploma.

INTRODUCTION TO PROBABILITY AND STATISTICS-R (CHSP- HVCC 4 credits)

MSTAT 40 weeks 1 Credit

Pre-requisite: Passing grade in Algebra II R course

This one-year course will introduce students to probability and statistical concepts and models that are most commonly used in real world analytical work. Applications will come from a variety of areas. Topics would include, but are not limited to, frequency distributions, measures of central tendency and dispersion, linear regression and correlation, sampling techniques and design of experiments, basic probability concepts, discrete and continuous probability distributions, the central limit theorem, sampling distributions, confidence intervals, and testing of hypotheses. This course is project driven and will include significant use of technology for computations and analysis.

Students may receive four college credits from HVCC for MATH 135 Elementary Statistics.

PRE-CALCULUS ALGEBRA-R

MPCAR 20 weeks ½ Credit

Pre-requisite: Passing grade in Algebra II R course.

This is a ½ credit course taught only in the first semester. Its purpose is to bridge the gap between high school and college mathematics. Topics include: Complex numbers, polynomial functions and equations, exponential, logarithmic, and trigonometric functions.

PRE-CALCULUS GEOMETRY-R

MPCGR 20 weeks ½ Credit

Pre-requisite: Passing grade in Pre-Calculus Algebra-R.

This is a ½ credit course taught only in the second semester. Its purpose is to extend the student's experience with coordinate geometry and also to provide some exposure to other select topics. Topics include: the circle and the conics, trigonometric equations and identities, systems of equations, matrices, limits, continuity and derivatives.

PRE-CALCULUS ALGEBRA-H (CHSP-HVCC 4 credits)

MPCAH 20 weeks ½ Credit

Pre-requisite: Minimum final average of 85% in Algebra II H OR Minimum final average of 90% in Algebra II R AND Teacher Recommendation.

Same content as Pre-Calculus Algebra-R with emphasis on more sophisticated problems and solutions and the additional consideration of partial fractions, special functions, Descartes rule of signs, damped trigonometric graphs and additional trigonometric formulas.

Students may receive four college credits from HVCC for MATH170 Precalculus

PRE-CALCULUS GEOMETRY-H

MPCGH 20 weeks ½ Credit

Pre-requisite: Passing grade in Pre-Calculus–Algebra–H.

Same content as Pre-Calculus Geometry-R with emphasis on more sophisticated problems and solutions and the additional topics of DeMoivre's Theorem, determinants, Cramer's Rule, mathematical induction, parametric and polar equations and graphs, and a more in-depth study of limits and an introduction to differentiation.

INTRODUCTION TO CALCULUS-H (AP) I

MCA12 20 weeks ½ Credit
Pre-requisite: Passing grades in both semesters of Pre-Calculus-R.

This is a ½ credit course taught only in the first semester. This course is designed for the student especially capable and interested in mathematics. The course introduces the students to the fundamental concepts, techniques and applications of both the differential and integral calculus as well as a further extension of coordinate geometry. This course follows the AP Calculus AB syllabus.

INTRODUCTION TO CALCULUS-H (AP) II

MCB12 20 weeks ½ Credit
Pre-requisite: Completion of Introduction to Calculus-H (AP) I.

This course is taught only during the second semester. Topics include: integration by various methods, more applications of the derivative and the definite integral, and the introduction to elementary differential equations. Students completing this course will be prepared to take the Advanced Placement Examination in Calculus AB.

CALCULUS-H (AP) I (CHSP – HVCC 4 credits)

MCLAH 20 weeks ½ Credit
Pre-requisite: Minimum final average of 85% in Pre-Calculus H OR Minimum final average of 92% in Pre-Calculus R AND Teacher Recommendation

This calculus course to be taught in the first semester is based on Advanced Placement BC Calculus syllabus. Same content as Calculus-AB with emphasis on a more sophisticated study of differential and integral calculus topics.

Students may receive four college credits from HVCC for MATH 180 Calculus I.

CALCULUS-H (AP) II (CHSP – HVCC 4 credits)

MCLBH 20 weeks ½ Credit
Pre-requisite: Passing grades in Calculus – H (AP) I.

This calculus course to be taught in the second semester is based on Advanced Placement BC Calculus syllabus. Same content as Calculus-AB with the additional topics of sequences and series, differential equations, parametric and polar functions. Students completing this course will be prepared to take the advanced placement examination in Calculus BC.

Students may receive four college credits from HVCC for MATH 190 Calculus II.

COMPUTER PROGRAMMING-R I

(Offered Fall Semester only)
MCPT1 20 weeks ½ Credit
Pre-requisite: Student must have passed the Algebra I (Common Core) Regents Exam.

This course will introduce the student to the basic techniques of computer programming using the C language. A history of computers will also be included. Program design, documentation, and problem solving will be emphasized through projects. This half-year course will be offered in the fall semester.

COMPUTER PROGRAMMING-R II

(Offered Spring Semester only)
MCPT2 20 weeks ½ Credit
Pre-requisite: Computer Programming-I (To ensure continuity, students should take immediately after Computer Programming –I)

This course will extend the student’s programming skills and techniques to solve more complex problems. The student will be introduced to object oriented design using the C language. It will also include the study of algorithms and data structures at a moderate level. This half-year course will be offered in the spring semester.

INTRODUCTION TO COMPUTER SCIENCE

(CHSP - SIENA COLLEGE 3 credits)
MCS100 40 weeks 1 credit
Pre-requisite: Successful completion of Geometry R or Geometry H course AND passing grade on the NYS Geometry (Common Core) Regents exam

This course is a broad introduction to a variety of fundamental topics in computer science through the theme of multimedia. Students will be introduced to the important areas of computer science including abstraction, computer organization, representation of information, history of computing, ethics, and the development and evaluation of algorithmic solutions using an appropriate programming environment. Students will use Finch robots and the Python programming language to solve problems presented in the course.

Students may receive three college credits from Siena College for CSIS110 Introduction to Computer Science.

MUSIC

The Music Department offers a wide variety of courses and experiences for all students. A student planning to pursue a music degree in college should consider acquiring a five-year sequence in music. The sequence begins in 9th grade with participation in one of the performing ensembles (concert band, chorus or orchestra). After successful completion of the first year of study it is suggested that music students take music theory.

PERFORMANCE COURSES

A student may obtain the one credit in music required for high school graduation by participating in the school's major performing organizations. Experienced singers and instrumentalists are encouraged to participate in these performing groups. Recommendation of the 8th grade ensemble director is **required** for freshmen. Each performing group rehearses daily. A weekly music lesson is also required of all participants as is attendance at all public performances. Freshmen students have the option of taking band and chorus or orchestra and chorus on opposite day rotation. Students in grade 10-12 must decide whether they will take band, chorus or orchestra. All performance courses fulfill the NYS fine arts requirement for graduation.

CHORUS-R

MU114 40 Weeks 1 Credit

Pre-requisite: A recommendation of the 8th grade chorus teacher or a passing grade on a basic musicianship entrance exam is required.

This course is for 9-12 grade students who would like to participate in the CHS choral program. This ensemble will continue to develop and build on skills previously learned. There will be mandatory concerts throughout the year. Students will take a weekly small group vocal lesson.

CHAMBER SINGERS-R(**)

MU115 40 Weeks 1 Credit

This course is for 10-12 grade students who would like to participate in Columbia High School's most select vocal ensemble. There will be mandatory concerts throughout the year. Students will take a weekly small group vocal lesson. Chamber Singers is an auditioned group. Auditions take place in the spring semester. In order for students to audition, they must successfully complete one year in high school chorus.

CONCERT BAND

MU906 40 Weeks 1 Credit

This course is for students who would like to participate in the CHS band program. This ensemble will continue to develop and build on skills previously learned. There will be mandatory concerts throughout the year. Students will take a weekly small group lesson on their instrument.

SYMPHONIC BAND-R (**)

MU112 40 Weeks 1 Credit

This course is for 10-12 grade students who would like to participate in Columbia High School's most select band. There will be mandatory concerts throughout the year. Students will take a weekly small group lesson on their instrument. Symphonic Band is an auditioned group. Auditions take place in the spring semester. In order for students to audition, they must successfully complete one year high school in concert band.

STRING ORCHESTRA-R

MU905 40 Weeks 1 Credit

This course is for 9-12 grade students who would like to participate in the CHS orchestra program. This ensemble will continue to develop and build on skills previously learned. There will be mandatory concerts throughout the year. Students will take a weekly small group lesson on their instrument.

CHAMBER ORCHESTRA-R (**)

MU118 40 Weeks 1 Credit

This course is for 10-12 grade students who would like to participate in the Columbia High School's most select orchestra. There will be mandatory concerts throughout the year. Students will take a weekly small group lesson on their instrument. Chamber Orchestra is an audition group. In order to audition, students must successfully complete one year in orchestra. Auditions take place in the spring semester.

(**) Open to students in grades 10 - 12 by audition ONLY.

GUITAR

MU155 40 Weeks 1 Credit

This course is for students in grades 9-12 who would like to learn how to play guitar. The course is targeted toward students who do not already play guitar but who would like to learn. Students may have previous experience on

another instrument but it is not required. Students do not need to know how to read music to take this course. The course material will cover the following topics: Strumming, basic chords, flat picking, finger picking, reading tablature, reading chord notation and chord charts, basic note reading, improvisation and composition, guitar maintenance and basic song form. Students may bring in their own acoustic guitar but one will be provided for students who do not own an instrument. This course fulfills the NYS fine arts requirement for graduation.

**COURSES FOR MUSIC SEQUENCE AND
ADVANCED STUDY**

A student wishing to pursue a five (5) unit sequence in music must take Music Theory I-R. Any student wishing to increase their depth of musical understanding is encouraged to select this course.

MUSIC THEORY I-R (CHSP – SCCC 3 credits)

MU159 40 Weeks 1 Credit

(Open to students in Grades 10 - 12)

Pre-requisite:

1. Students must have been taking lessons on their instrument or voice (in school or privately) for at least two years.
2. Students must be able to read music in at least 1 clef.
3. Students must be able to read rhythmic notation.

*Students who do not meet the above criteria must take a pre-test to be considered eligible.

This course is required for students who may wish to pursue a five-credit sequence in music. The student will get a very in depth look into music. Topics will include: major and minor scales, simple and compound meter, interval recognition, triads, seventh chords, inversions, four part writing and Roman numeral analysis. This is a challenging course that moves quickly. Students will have homework assignments on a regular basis. Attendance in class is essential to student success.

Students may earn three college credits through Schenectady County Community College for MUS147 Music Fundamentals.

PHYSICAL EDUCATION

Mission Statement

K-12 Physical Education Program

The East Greenbush Physical Education Program will promote the maximum physical, emotional and social growth of every child in the East Greenbush Central School District. The Physical Education curriculum will be aligned with both the New York State and the Shape America Standards and will provide all students with a broad range of physical activities to foster healthy habits and positive decision making skills. The Physical Education program will work with the students to deliver and instill the knowledge necessary for a lifetime of health and fitness.

PASSING REQUIREMENTS:

All students must complete four years of Physical Education in order to fill graduation requirements. One half unit of credit is received each year for students who successfully pass.

NYS Law requires that all physical education students should complete no less than 75% of all offered classes. Opportunity for student makeup will be provided during and after school.

PHYSICAL EDUCATION 9-12

PE912 40 Weeks ½ Credit
(9-12th grades)

Students may experience the following offerings:

A. TEAM SPORTS

Team sports are those sports that require more than one participant per side. The following sports may be offered if facilities and weather conditions permit:

Basketball	Speedball	Rugby
Flag Football	Softball	Floor Hockey
Soccer	Lacrosse	Team Handball
Volleyball	Ultimate Frisbee	

B. INDIVIDUAL SPORTS

Individual sports are those sports that require no more than two participants per side. The following sports may be offered if facilities and weather conditions permit:

Cross Country	Track & Field	Yoga
Tennis	Kan Jam	
Bowling	Pickleball	
Badminton	Corn Hole	
Table Tennis	Snowshoeing	
Ramp Shot	Personal Fitness	

PERSONAL PERFORMANCE CLASS

PE100 40 Weeks ½ Credit
(9-12th grades)

*This course would replace a student's PE class

The strength and conditioning physical education class is offered as an elective for male and female students in grades 9-12 who are interested in participating in strength and resistance training related to personal performance. This class will teach proper lifting and spotting techniques for a variety of different exercises and allows students to track their own personal performance. The course content will prepare these student athletes interested in sports related fields (Athletic Training, Physical Therapy, Occupational Therapy, Physical Education, Sports Medicine, Sports Management, etc.) for college and their post college career. This course presents a great opportunity to embed content area/common core vocabulary into the specialty areas.

Course Goals and Objectives: Students will learn the basics of our regular PE curriculum and participate in a highly specialized training program during the school day that will increase their personal performance. These students will still be responsible for taking a written test after each PE unit even though they will not be participating in each activity of our PE curriculum.

SCIENCE

To earn a diploma:

A student entering ninth (9th) grade in 2001 or after must earn a minimum of three (3) credits in science. One of these credits must be the Living Environment (Biology) course and the second must be Earth Science. The third course varies with the student's chosen pathway.

Required laboratory experiences:

All Science classes are laboratory based. Students are expected to participate in all laboratory activities, and complete a written report. Courses that terminate in a Regents exam must have **successfully** completed reports for all laboratory experiences.

All students are required to take Living Environment and Earth Science. Upon successful completion of both Earth Science and Living Environment, students can register for Science Department electives. **Successful completion is defined as a passing average within one academic year.**

PATHWAY #1	PATHWAY #2	PATHWAY #3
9th Grade - Core Living Environment – R	9th Grade - Earth Science - R *Science Research: End of year application to enter and summer assignment (Must be taken concurrently with Pathway #2 science courses)	8th Grade - Earth Science - R 9th Grade - Living Environment - H *Science Research: End of year application to enter and summer assignment (Must be taken concurrently with Pathway #3 science courses)
10th Grade - Core Earth Science-R, Earth Science S, or Core Living Environment	10th Grade - Living Environment - R Science Research 1	10th Grade - Chemistry - H Science Research 1
11th Grade - Environmental, Core ES or Chemistry-R General Chemistry	11th Grade - Chemistry - R Science Research 2	11th Grade – AP I Physics I and/or AP Electives: Biology, Chemistry, Environmental Science Research 2
12th Grade – Environmental, Forensics, General Chemistry	12th Grade – Physics – R, Forensics, Environmental and/or AP Electives: Biology, Chemistry, Environmental, Physics I Science Research 3	12th Grade - AP Electives: Biology, Chemistry, Environmental, Physics C (Calculus Based) Science Research 3

CORE EARTH SCIENCE-RSC 92540 Weeks1 Credit

This course is for the student who took Core Living Environment last year and successfully completed that course. The description is the same as the Earth Science–R course except that this course will be taught at a more deliberate pace with emphasis on the student grasping the major concepts. This course is making interpretations based on observations of one's environment. Major topics investigated are measurement of change, earth in space, insolation and energy changes in the atmosphere, moisture and energy budgets, erosional-deposition processes plate tectonics, mountain building, earthquakes and volcanoes, formation of rocks and fossils, earth history and landscape development. A goal of the course is to make students more aware of the changes taking place in their environment and to arrive at an understanding of the causes of these changes. This laboratory science course is based upon the New York State Regents Core Curriculum Guide and terminates with a Regents Examination, as well as a Regents laboratory exam. Upon passing the Regents Examination and achieving a 65%+ final average, a student earns one Regents credit.

EARTH SCIENCE - RSC92040 Weeks1 Credit

Emphasis is placed upon making interpretations based on observations of one's environment. Major topics investigated are measurement of change, earth in space, insolation and energy changes in the atmosphere, moisture and energy budgets, erosional-deposition processes plate tectonics, mountain building, earthquakes and volcanoes, formation of rocks and fossils, earth history and landscape development. A goal of the course is to make students more aware of the changes taking place in their environment and to arrive at an understanding of the causes of these changes. This laboratory science course is based upon the New York State Regents Core Curriculum Guide and terminates with a Regents Examination, as well as a Regents laboratory exam. Upon passing the Regents Examination and achieving a 65%+ final average, a student earns one Regents credit.

EARTH SCIENCE - SSC92340 Weeks1 Credit

This full year structured course is designed for students who need a science credit (not a Regents Science credit) in the category of a physical science for their science sequence. The course introduces students to a variety of essential Earth Science topics taught at the high school. It prepares them for the more sophisticated approaches to scientific inquiry and problem solving in Earth Science as well as real-world interests

and application of science. Students will take a school final exam in June.

CORE LIVING ENVIRONMENT - RSC90140 Weeks1 Credit

Students will use science skills to explore topics including genetics, human physiology, classification, plants, reproduction and development, evolution and ecology. Analytical organization of data and observation skills will also be stressed. This laboratory science course is the New York State Regents Living Environment curriculum and terminates with a Regents Examination. Upon successful completion of the lab requirement, achieving a 65%+ final average, and passing the Regents Exam, a student earns one Regents credit.

LIVING ENVIRONMENT (BIOLOGY) – RSC10140 Weeks1 CreditPre-requisite: Earth Science - R

An understanding of the facts, concepts and principles of biological science will play a vital part in the life of organisms. Content of this course includes the study of cell theory, biological classification, physiology, reproduction and development, genetics, evolution and ecology. A major goal of the course will be to promote understanding and appreciation of broad biological concepts that apply to many aspects of daily living. This laboratory science course is based upon a New York State Regents Core Curriculum Guide and terminates with a Regents Examination. Upon passing the Regents exam, and achieving a 65% final average, a student earns one Regents credit.

LIVING ENVIRONMENT (BIOLOGY) - HSC10540 Weeks1 CreditPre-requisite: Earth Science - RRequired:

- Recommendation of previous science instructor
- An average of 90%+ on the Earth Science Regents Exam
- Note: Priority will be given to students currently in the accelerated program

Honors Biology is designed for the above average student who is personally motivated to explore further into the science of living things. This is an enriched Biology course in which students are expected to handle more sophisticated concepts and probe more deeply into the study of the chemical and physical implications that underlie observable biological phenomena than in Living Environment - R. Students will be required to complete in-depth readings, written reports based on scientific articles and scientific projects. Laboratory

investigation is a major part of this course. At the end of the course, the student will be prepared for the Regents examination as well as the Biology SAT II exam in June. Upon passing the Regents exam and achieving a 65%+ final average, a student earns one Regents credit.

AP BIOLOGY - H

SC123 **40 Weeks** **1 Credit**

Requirements:

- Students must have demonstrated a high level of success in previous Earth Science, Living Environment and Chemistry coursework and Regents exams
- Teacher recommendation
- Summer project work expected

AP Biology is designed for the above average student who is interested in pursuing in depth biological knowledge. The course covers all of introductory Biology at the collegiate level. Emphasis is placed on Biotechnology and basic DNA gel electrophoresis techniques. Students who complete this course are well prepared for the AP Exam and find their first semester of College Biology much easier. If you are considering any type of medical science this course is a must have.

ENVIRONMENTAL SCIENCE

SC118 **40 Weeks** **1 Credit**

Environmental Science concentrates on an understanding of the Earth, its ecology and the human organism's effect and dependence on his environment. Current environmental issues including ozone depletion, solid waste disposal, greenhouse effect, extinction soil erosion, and habitat fragmentation will be discussed. A lab component to reinforce topics will also introduce sampling methods and data collection. This course is suggested for students interested in learning more about their environment. Upon achieving a 65% average students earn one science credit.

AP ENVIRONMENTAL SCIENCE - H

SC119 **40 Weeks** **1 Credit**

Pre-requisite:

- Students must have demonstrated a high level of success in Living Environment, Chemistry, and Earth Science course work and the corresponding Regents exams.
- Teacher recommendation
- Summer project submission

The advanced Placement Environmental Science course is designed to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze

environmental problems both natural and man-made, to evaluate the risks associated with these problems, and examine alternative solutions for resolving and/or preventing them. Environmental science is a multidisciplinary science.

AP Environmental Science is an applied science that institutes problem-solving techniques. Students will be able to apply content knowledge to solve real current environmental issues. Environmental scientists search for viable solutions to environmental problems, solutions that are based as much as possible on solid scientific knowledge. The main focus will be to attempt to understand how the biosphere changes naturally and how human activities are altering it. For example, industry transportation, water use, resource use, energy production, agriculture, waste production, and urbanization all go on in a mostly non-sustainable way. Many of the environmental problems we face are due to excessive population growth and unsustainable system design.

GENERAL CHEMISTRY

SC 109 **40 Weeks** **1 Credit**

Pre-requisite: Earth Science R and Living Environment R

This course is designed as hands on course that will cover the major topics of chemistry. It will be a junior level course for students who wish to pursue the physical aspects of science without the more intense math component of the chemistry Regents course. Major topics of chemistry will include: matter and energy, atomic structure, periodic table, bonding, chemical reactions, solutions, biochemistry, acids and bases, kinetics and equilibrium, organic, nuclear and engineering. Upon achieving a 65% average, students will receive one science credit.

CHEMISTRY 11-R

SC110 **40 Weeks** **1 Credit**

Pre-requisite: Earth Science and Algebra I Minimum 75 Regents Scores

Minimum Co-requisite: Algebra II

Chemistry is concerned with investigating the composition and behavior of matter. The major topics studied in the course include: matter and energy, atomic structure, bonding, the periodic table of elements, mathematics of chemistry, kinetics, equilibrium, acids, bases, redox and electrochemistry, organic chemistry, and nuclear chemistry. Laboratory is a major part of the course and labs will be performed and summarized in written lab reports. Regents Chemistry follows the NYS core curriculum and terminates in a state-prepared Regents examination. Upon passing the Regents exam and achieving a 65% final average, student earns one Regents credit.

CHEMISTRY - H

SC115 **40 Weeks** **1 Credit**

Co-requisite: Pre-Calculus – for Juniors. Algebra II for Sophomores.

Required:

- Recommendation of previous science instructor
- A 93% on the Living Environment Regents exam.
- Note: Priority will be given to students currently in the Honors program.

Honors chemistry is designed for the above average student who is motivated and wants to understand why and how chemical reactions occur. Course content is the same as Regents chemistry with enrichment activities. Some of these opportunities include advanced topics in the mathematics of chemistry, kinetics and equilibrium and the mole concept. Additional course requirements will include a scientific research project, test extensions with critical thinking in a problem solving format and current events. Laboratory work is a major part of the course and will be performed and summarized in written lab reports. At the end of the course, the student will be prepared for the Regents examination as well as the SAT II Chemistry Achievement exam in June. Upon passing the Regents exam, and achieving a 65% final average, a student earns one Regents credit.

AP CHEMISTRY - H

SC125 **40 Weeks** **1 Credit**

Prerequisite:

- Students must have demonstrated a high level of success in previous Earth Science, Living Environment and Chemistry coursework and Regents exams
- Teacher recommendation (chemistry)
- Summer project submission

The subject content of AP Chemistry is an approximate equivalent to the general chemistry course often taken in the freshman year of college. It is designed to be a second year high school chemistry course. The course provides a greater challenge than Regent's chemistry, with an emphasis on chemical calculation, mathematical formulation of principles, and intensive laboratory performance.

Topics:

- Structure of matter (atomic theory and structure, chemical bonding, nuclear chemistry)
- States of matter (gases, liquids, solids, solutions)
- Reactions (types, stoichiometry, equilibrium, kinetics, thermodynamics)
- Descriptive chemistry (environment and society, periodic relationships, organic chemistry)
- Laboratory

FORENSIC SCIENCE

SC111 **40 Weeks** **1 Credit**

Grade 11 or 12

Recommended: Must have successfully completed Earth Science R, Living Environment R and Chemistry having a minimum final average of 80% in each course.

This course will provide a general overview in the field of forensic science. Forensic science techniques are used in teaching scientific principles. Activities and inquiry-based labs develop the skills and confidence necessary for students to become proficient at critical thinking and problem solving. The forensic science course includes: an overview of forensic science, crime scene analysis, blood basics and spatter; soil and glass analysis; impressions, tire, foot, and tool marks; entomology and time of death; muscle and bone basics; odontology, teeth and dental records; DNA basics, fingerprinting, mDNA; forensic toxicology: ballistics. This is a great class for students interested in collegiate study and careers in fields such as criminology, law enforcement, psychology, biology, chemistry, forensic science, law and many others.

GENERAL PHYSICS

SC 126 **40 Weeks** **1 Credit**

Please note that this course will not be offered in 2020-21.

General physics is a laboratory based course designed to explore the fields of mechanics (vectors, motion in one and two dimensions, forces momentum); energy (work, power, conservation of energy), sound, light and electricity. Emphasis will be placed on conceptual understanding, problem solving and practical application of the principals involved in the above fields. Concepts and skills will be reinforced by a strong emphasis on hands-on laboratory experiences and the integration of physics into other branches of science.

PHYSICS R

SC121 **40 Weeks** **1 Credit**

Pre-requisite: Algebra II Regents with a minimal 75%

Co-requisite: Pre-Calculus Algebra- R and Pre-Calculus Geometry R

Everything in the universe is in motion, from the elementary particles of atoms, to galaxies of stars. Physics is the science of energy. The study of physics deals with the transmission of energy, its transformation, utilization and the natural laws governing these phenomena. A primary goal of physics is to establish an understanding of the nature and behavior of the interactions between matter and energy. Special emphasis will be placed upon practical applications of physical science in daily living and the development of scientific principles, which influence the lives of everyone. Major topics include: mechanics, wave phenomena, electricity, and atomic nuclear

physics. This laboratory science course is based upon the New York State Regents core curriculum in Physics. Upon passing the Regents exam, and achieving a 65% final average, a student earns one Regents credit.

AP PHYSICS I-H

SC127 40 Weeks 1 Credit

Pre-requisite: Completion of Chemistry with at least an 85% in the class and on the Regents exam, Algebra II Regents exam with an 85%, or successful completion of Physics R and recommendation from previous science instructor.

AP Physics I is the equivalent of a first-semester college course in algebra (non-calculus) based physics. The class is intended for students who may be interested in studying physics as a basis for more advanced work in sciences other than engineering or physics. It is ideal for students seeking life science, medicine or geology majors or non-science majors that have a physics requirement. The course covers Newtonian mechanics (including rotational dynamics and angular momentum); work, energy, and power; and mechanical waves and sound. It will also introduce electric circuits.

Focused on a series of learning objectives set out by the Advanced Placement organization, the course is organized around seven foundational ideas in physics. Laboratory investigations make up 25% of the course. These investigations foster student engagement in the practice of science through experimenting, analyzing, making conjectures and arguments, and solving problems in a collaborative setting. Students will also prepare for and take the NY State Regents in Physics. Upon passing the Regents exam, and achieving a 65% final average, the student earns one Regents credit.

AP PHYSICS C MECHANICS AND ELECTRICITY & MAGNETISM 12H

SC122 40 Weeks 1 Credit

Required:

- Successful completion of AP Physics 1 or equivalent
- A score of 85% plus on Physics R exam
- Teacher Recommendation
- Algebra II and Pre-Calculus

Co-requisite: Calculus A/B *or* Calculus B/C

The AP Physics C course is intended for students who intend to major in either science or engineering while in college. The course content is consistent with what students would learn in a Calculus based Physics 101 and Physics 102 class during their first year of college. The AP Physics C course builds on the introductory, algebra based physics learned while taking AP Physics 1. Students in this course will learn to apply the math tools of calculus to their problem solving models and analysis of systems.

Students who complete this course will be prepared to take two AP Physics exams, the AP Physics C Mechanics exam as well

as the AP Physics C Electricity and Magnetism exam.

The first part of the course covers mechanics, which includes velocity, acceleration, and the forces that cause acceleration. Non-constant forces are analyzed, as well as air resistance. Other topics in mechanics include energy, momentum, gravitation, oscillatory motion, and rotational motion. The second part of the course covers electricity & magnetism. Topics covered include electric forces, electric fields, Gauss’s Law, magnetic forces, magnetic fields, induced currents, voltage, current, series/parallel circuits, capacitors, dielectrics, resistors, transformers, and inductors.

In addition, the skills of critical thinking, problem solving, and computational modeling will be emphasized during this course.

PROGRAM IN SCIENCE RESEARCH-H (CHSP SUNY Albany)

<u>SC230 – So. Yr.</u>	<u>40 Weeks</u>	<u>1 Credit</u>
<u>SC213 - Jr. Yr</u>	<u>40 Weeks</u>	<u>1 Credit</u>
<u>SC232 - Sr. Yr</u>	<u>40 Weeks</u>	<u>1 Credit</u>

- Complete the entrance procedure (essay, meeting, application and teacher recommendation.) Students will be notified of their **conditional** acceptance sometime in early May/June.
- Complete the summer assignment. Departmental approval

This program is designed to give highly self-motivated science students ‘real world’ science experience. This is a three year program which includes time during the sophomore and junior summers. Students select an area of interest, learn literature research skills, present articles using PowerPoint and finally finds a match with a professional mentor in their field of interest. The goal of this course is to complete original scientific research in his/her area of interest. During the first year, class meets every day. In the following years there is individual meeting time and classes meet every other day. The senior year focuses on major scientific competitions and professional publication of student work. Students who complete this program attend some of the most prestigious colleges in the country. This program will take the student above and beyond their science sequence, not replace it.

Students may earn 12 college credits through SUNY Albany for ACAS 109 Intermediate Science Research, ACAS 110 Intermediate Methods of Research ACAS 209 Advanced Science Research, and ACAS 210 Advanced Methods of Research.

SOCIAL STUDIES

GRADE 11

GRADE 9

GLOBAL HISTORY 9-R

S9001 40 Weeks 1 Credit

The first year of a required two-year Global History Sequence is a chronological study of world history from Pre-history to the Age of Absolutism (1750). This course includes both a departmental midterm and final examination.

AP WORLD HISTORY I (Open to grade 9 students only)

S9020 40 Weeks 1 Credit

This course is the first year of a two-year AP Program that may offer an opportunity for those interested in Global History to obtain college credit. It will increase the depth of study through analysis of worldwide historical evidence and prepare students for an intermediate or advanced college course. Due to the challenging nature of this course, students enrolled will be selected by teacher recommendation, a qualifying exam and an average over 90% in 8th grade. Students are required to do a summer reading assignment. A midterm in January and a final exam will be required in June. Placement will be reevaluated quarterly based on overall achievement.

GRADE 10

GLOBAL HISTORY 10-R

S1010 40 Weeks 1 Credit

The second half of a required two-year sequence in Global History continuing the chronological study of world history from The Scientific Revolution until the Modern Era. The course terminates with the NYS Global History and Geography Regents Exam.

AP WORLD HISTORY II - Modern

S1022 40 Weeks 1 Credit

Pre-Requisite: AP World History I

This course is a continuation of AP World History I. It will terminate with both the College Board Exam (based on two years of material) in May and the NYS Global History and Geography Regents in June. Students will be selected upon successful completion of the 9th grade AP World History course. A midterm will be required in January and registration for the AP Examination in the fall is required.

U.S. HISTORY & GOVERNMENT 11-R

S1100 40 Weeks 1 Credit

This course is designed to provide students with a culminating survey of major forces of United States history, from the Constitution to today. This course terminates with a NYS Regents Exam in U.S. History and Government.

UNITED STATES HISTORY 11 AP

(Open to Grade 11 students only)

S1200 40 Weeks 1 Credit

Pre-Requisite: Students are required to have at least a 90% average in Global History 10 as well as on the Global Regents.

This course may offer an opportunity for college-bound students and those interested in American History to obtain college credit. It is designed to provide students with the analytical skills and factual information necessary to deal critically with history. It also prepares students for intermediate and advanced college courses by introducing them to various interpretations by American historians. A mid-term exam, the College Board Advanced Placement Exam in May, and the NYS Regents Exam in U.S. History and Government in June are also required. Registration for the AP Examination in the fall is required.

GRADE 12

**Each twelfth grade student must select one
Economics class and Participation in Government**

ECONOMICS AND DECISION MAKING 12-R

S1204 20 Weeks ½ Credit

This course will deal with the basic concepts and principles of economics, the major elements of economic systems and the roles of various components of those systems, including the consumer, business, labor, agriculture, and government. The major focus is on the economy of the United States, but attention will be given to the world economy as a whole and to other economic systems. This course terminates with a departmental final examination.

ECONOMICS 12-H

S1203 20 Weeks ½ Credit

This course will offer an extensive experience in micro or macroeconomic theory and its application. Both the American economic system as well as the international economy will be thoroughly investigated. This course is geared for the

advanced/college bound senior. All students will take a departmental final examination.

ADVANCED PLACEMENT MICROECONOMICS

S1205 20 Weeks ½ Credit

AP Microeconomics is a half-year, **2nd SEMESTER ONLY** class that focuses on the functions of individual decision makers. Topics including, but not limited to, basic economic concepts, nature and function of product markets, efficiency, and equity are discussed. All students enrolled in this class will take the AP Microeconomics exam in May to obtain college credit. A final project will also be required.

PARTICIPATION IN GOVERNMENT 12-R

S1207 20 Weeks ½ Credit

Being a citizen in a democracy is most demanding. This course will examine government as it involves our everyday lives. Students will study the interaction between citizens and government at the local, state, and national levels. The development of skills that encourage lifelong participation in the process of government is stressed. A final project is required of all students.

INTRO TO PUBLIC POLICY-SYRACUSE UNIVERSITY PROJECT ADVANCE (SUPA)

(CHSP – Syracuse University 3 Credits)

S1208 20 Weeks ½ Credits

(Pending Board of Education Approval)

If approved, this course will allow students to earn college credit from Syracuse University in Public Affairs while also fulfilling their Participation in Government (PIG) requirement for graduation. This course is designed to provide students with basic research, communication, and decision-making skills used in public policy analysis. This is a challenging course that requires students to practice collecting information by examining graphs, tables, statistics and using interview procedures while studying a specific public policy issue. In addition, they will identify a social problem and come up with a proposed public policy. Additionally, students will complete 20 hours of community service as a course requirement. In order to earn college credit, students will have to enroll with Syracuse University at the beginning of the course. Students who do not enroll with Syracuse, may be dropped from this course. The current fee for registration is \$115.00 per credit hour or \$345.00 for the class. Students who successfully complete this course will earn 3 credits from Syracuse University for PST 101 Introduction to the Analysis of Public Policy.

ELECTIVES

These electives are open to 11th and 12th graders only

EUROPEAN HISTORY AP

S1020 40 Weeks 1 Credit

This course may offer an opportunity for students interested in European history to obtain college credit. Critical analysis of the political, diplomatic, cultural, social, and economic history of Europe from the period of the High Renaissance (1450) to the present will be studied. Students will take the Advanced Placement Examination in May. This may be a Distance Learning course hosted by Columbia High School.

SOCIOLOGY-R

SS124 20 Weeks ½ Credit

Sociology is the scientific study of society and human behavior. This class offers an introduction to the concepts and approaches in the study of society. Major components of our society in the United States and those of other areas of the world are examined as “common sense” is challenged and prejudices explored. This course is mature in nature, and is an excellent course to take before or after any criminology or law courses. This course will end with a departmental final exam (open notes).

PSYCHOLOGY-R

SS122 20 Weeks ½ Credit

This course is a general introduction to the science of Psychology for all interested students in 11th and 12th grade (Students in grade 10 may take the course with prior approval of the instructor). Some of the topics covered are personality, emotion, motivation, altered states of consciousness, perception, learning and development. Famous psychologists, Freud, Skinner, Pavlov and others will be discussed. This course terminates with a departmental examination.

INTRO TO PSYCHOLOGY

(CHSP – SUNY Albany 3 Credits)

SS130 20 Weeks ½ Credit

This course will allow students to earn college credit while being introduced to the science of Psychology. The course curriculum will be a more rigorous and challenging option for interested students. Some of the topics covered are personality, the science of psychology, states of consciousness, perception, learning and development. Famous psychologists, Freud, Skinner, Pavlov and others will be studied. This course terminates with a departmental examination. This option is only available for juniors and seniors. If class is at capacity, preference will be given to seniors. If there are financial

concerns regarding payment of the college credit, please see your school counselor.

Students may earn three college credits through SUNY Albany for PSY 101 Intro to Psychology.

ABNORMAL PSYCHOLOGY-R

SS123 20 Weeks ½ Credit

Pre-requisite: To take this course a student must have successfully completed Psychology

Abnormal psychology examines many of the complex problems of our times. The course examines conflicts in people's lives and defense mechanisms that are used by all. Studies of alcoholism, depression, phobias, schizophrenia, and mental hospitals are included. This course is offered to 11th and 12th grade students who have completed the pre-requisite in Psychology. A departmental examination will be given at the end of the course.

CRIMINOLOGY-R

SS125 20 Weeks ½ Credit

Criminology is the study of crime and the criminal justice system. Class discussions will focus on such controversial issues as capital punishment, issues concerning prisons, domestic violence, and college and campus crime. Guest speakers who hold positions in the criminal justice system are scheduled. Students will be exposed to a variety of career opportunities in the Criminal Justice field. Projects and field trips that encourage students to observe our system are required of all students in the course. Class participation and discussion is a part of the course grade. This course is open to students that can handle adult topics and will terminate with a departmental final exam (open notes).

CRIMINAL JUSTICE 1

NC300 20 weeks ½ Credit

(Recommended for Juniors and Seniors)

This course is articulated through the Schenectady County Community College. The course at SCCC is CRJ 113 (Introduction to Criminal Justice) and their course description is as follows:

“This course provides the philosophical and historical background of the agencies that compose the criminal justice system. It focuses on the development of justice and law, crime and punishment, the administration of laws, the agencies' functions, career orientation and public policy.” Students will be provided with the opportunity to earn FEMA certifications.

INTRODUCTION TO CRIMINAL LAW

NC304 20 weeks ½ Credit

This course is recommended for Seniors who have completed Criminal Justice I.

This course is an overview of the American Criminal Justice System. Students will study how the court system works. They will participate in mock trials, debates and be given opportunities for public speaking. This class includes field trips and guest speakers. This course is of great interest to students intending on studying law and/or any careers involving the American legal system.

INTRODUCTION TO SECURITY

NC306 20 weeks ½ Credit

Recommended: This course is recommended for Seniors who have completed Criminal Justice I.

Please note that this course will not be offered in 2020-21.

This course is articulated through the Schenectady County Community College. This course at SCCC is CRJ 135 (Introduction to Security), and their course description is as follows:

“This course focuses on the various facets of modern security operations in a variety of settings. Security problems, both internal and external, and possible solutions will be explored for plant protection and industrial security, retail security and institutional security.” Students will be provided with the opportunity to earn FEMA certifications.

TECHNOLOGY EDUCATION

Technology is changing how all products and systems are designed, constructed or manufactured, and maintained. It shapes all of our lives. Teamwork is needed to complete today's and tomorrow's complex engineering projects. Technologists and technicians, as part of an engineering team, help make engineering ideas come alive. Technologists and technicians work in the same disciplines as engineers (i.e., mechanical, civil, manufacturing, chemical, electrical, industrial, and others) but the type of work they do is different from work engineers do. Engineers lead the product or project and coordinate the team. Engineers find new ways to do things and to design new products. Engineering technologists are the "applications" members of the team.

NOTE: The course Design and Drawing for Production may be used by ANY student to satisfy the Art/Music requirement even if the student is not taking a technology career cluster.

Design and Drawing for Production	(1)
Materials Processing Metals I	(1/2)
Materials Processing Metals II	(1/2)
Introduction to Engineering	(1)
Principles of Engineering	(1)
Applied Engineering	(1)

DESIGN AND DRAWING FOR PRODUCTION

OT110 40 Weeks 1 Credit
(Grades 9-12)

START HERE → DDP is an entry level course into the world of Engineering Technology in which students create and build projects using the latest methods in the Engineering process. Students participate in team approaches for developing products and learn techniques in concept, design, prototyping, planning, building, testing and analysis. Students will be using the latest Technology such as rendering software, 3D printing and digital electronics to create and test their products. The class will take place in a variety of locations within the Technology Department so that students can utilize and be exposed to all facets of the kinds of Technology offered at Columbia. Anyone interested in Engineering or a trade should consider this course as a way to get started in an exciting new program. This is a recommended class for students wishing to attend Tec-Smart. In addition this course may be used by any student to satisfy the art/music requirement.

MATERIALS PROCESSING METALS I R

OT108 20 Weeks ½ Credit
(Grades 10-12)

This course will provide students with the opportunity to experience the machines, tools and processes of the metal

working industries. Students will have "hands-on" experience with various machines and processes of metal working. Some of the areas covered are designing, planning, forming, casting, machining and welding.

MATERIALS PROCESSING METALS II R

OT118 20 Weeks ½ Credit
(Grades 10-12)

Prerequisite: Students should have completed Materials Processing Metals I and Design and Drawing for Production or need permission from the instructor to enroll in this course.

This course will provide students with the opportunity to demonstrate upper levels skills such as fabrication methodologies (by hand or with equipment). The students will develop an appreciation for design and workmanship. Students will develop working drawings (plans) for all project based activities such as fine metal working (jewelry), cold and hot metal forming techniques, and conventional techniques and metals processing.

INTRODUCTION TO ENGINEERING DESIGN

NE 100 40 Weeks 1 Credit

Students dig deep into the engineering design process by applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use of an engineering notebook to document their work.

PRINCIPLES OF ENGINEERING

N101 40 Weeks 1 Credit
(Grades 10-12)

Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration and presentation.

APPLIED ENGINEERING

OT145 40 Weeks 1 Credit
(Grades 11-12)

Prerequisite: Design and Drawing for Production and at least one other credit in Technology, Engineering, or IT.

This full year course is designed to allow students that are interested in pursuing a career in engineering to apply past coursework to a large scale project. Students will create either individual or group projects guided by the instructor utilizing all steps of good engineering practice. Students will use design processes, prototype, fabricate and construct complex systems that combined will yield the final project.

VOCATIONAL-TECHNICAL EDUCATION

QUESTAR III

Each year CHS contracts with the QUESTAR III Career and Technical Education Center in Troy, NY, to offer Career/Technical education programs for students. The Career and Technical Education courses are generally scheduled for one-half of the school day (Monday through Friday). Bus transportation is provided by the East Greenbush Central School District.

Enrollment in many of these program has a criteria that requires students to be in good academic standing. Students who meet the requirements must also have good attendance, satisfactory grades, and obtain a counselor recommendation. Students electing to attend the Career/Technical Center are making a serious commitment. Interested students must attend any scheduled visitation days to visit their intended program. After the visitation, students must then complete the QUESTAR III Parent and Student Form stating their interest in the program.

CAREER-TECH

Four credits are earned upon successful completion of each year of the program. Most programs have a one or two year option (except Cosmetology, which is a mandatory two year program for licensing).

AUTOMOTIVE TECHNOLOGIES I

OV112 40 Weeks 4 Credits
(Grade 11)

AUTOMOTIVE TECHNOLOGIES II

OV122 40 Weeks 4 Credits
(Grade 12)

These programs train students to repair and maintain a variety of vehicles. Students will learn to locate mechanical problems through careful diagnosis and perform the necessary repairs, using modern test equipment and tools. This "hands-on" experience and instruction prepares students for entry level employment in the Auto Mechanics field. Recommended entrance requirements: Completion of Grade 10, good mechanical aptitude, ability to perform heavy physical work, and good school attendance.

CONSTRUCTION TECHNOLOGIES I

OV113 40 Weeks 4 Credits
(Grade 11)

CONSTRUCTION TECHNOLOGIES II

OV123 40 Weeks 4 Credits
(Grade 12)

These programs provide students with the basic knowledge of tools, methods and materials used in the building trades. Emphasis is placed on construction theory, blueprint reading, and related math. Shop activities include construction of forms, framing roofing and siding. Students who satisfactorily complete these programs will be prepared for entry level employment in the carpentry field. Students will participate in actual modular house construction at the Vo-Tec Center. Recommended entrance requirements: Completion of grade 10, good manual dexterity, capacity for physical work, good health, basic mathematics, good school attendance

COSMETOLOGY

OV114 40 Weeks 4 Credits
(Grade 11)

ADVANCED COSMETOLOGY

OV124 40 Weeks 4 Credits
(Grade 12)

Cosmetology is a two-year program which offers instruction and practical experience in the skills and theory necessary to be employed as a hairdresser. This includes care of hair, skin, nails, and all related services offered in a beauty salon. Equipment used in the cosmetology lab is equivalent to that found in a modern shop. The students must fulfill the requirement of 1,000 instructional hours for licensing. Those students completing the second year are qualified to take the New York State Cosmetology Licensing Examination. Recommended entrance requirements: Completion of Grade 10, physical examination, finger dexterity, good health, good school attendance.

CULINARY ARTS I

OV117 40 weeks 4 Credits
(Grade 11)

CULINARY ARTS II

OV127 40 weeks 4 Credits
(Grade 12)

These are programs in which the students learn the skills needed for entry level jobs in restaurants, hotels, cafeterias, institutional and specialized food service establishments. Students become familiar with catering, menu planning, operation of a food service restaurant, use and care of commercial equipment and preparation of small and large group dinners/luncheons. Students actually participate in

cooking lab 4-5 days each week. Recommended entrance requirements: Completion of Grade 10, good health, good school attendance, reading level of grade 7+.

ACADEMY FOR INFORMATION TECHNOLOGY I

(AIT)

OV125 40 weeks 4 Credits

(Grade 11)

ACADEMY FOR INFORMATION TECHNOLOGY II

(AIT)

OV126 40 weeks 4 Credits

Students in the Information Technology program can choose between a Cisco Networking Academy pathway or a Computer Programming pathway. In the Cisco Networking Academy pathway students learn how to install, configure and troubleshoot networks to prepare them to be a computer network technician. In the Computer Programming pathway, students learn programming using a variety of languages including HTML, CSS, JavaScript, Python, and others as time permits.

HEATING, VENTILATION & AIR CONDITIONING

(HVAC) I

OV145 40 weeks 4 Credits

(Grade 11)

HEATING, VENTILATION & AIR CONDITIONING

(HVAC) II

OV146 40 weeks 4 Credits

(Grade 12)

Heating, Ventilation, Air Conditioning & Refrigeration (HVAC/R) is a two-year program that provides students with classroom instruction, demonstrations and hands-on work. Students will learn about ventilation, piping, industry chemicals, electrical schematics, wiring, application, and design of systems, refrigeration and furnaces.

HEAVY EQUIPMENT OPERATION & MAINTENANCE I

OV174 40 weeks 4 Credits

(Grade 11)

HEAVY EQUIPMENT OPERATION & MAINTENANCE II

Students learn to operate, maintain, diagnose, and repair construction-related equipment such as backhoes, bulldozers, bucket loaders, and excavators.

CERTIFIED NURSE ASSISTANT (CNA)

OV120 40 weeks 4 Credits
(Grade 12)

Questar III's one-year Certified Nurse Assistant (CNA) program prepares students for a health occupation career as a CNA. Students receive comprehensive classroom instruction and hands-on laboratory and clerical work in short-and long-term health care facilities. Students learn hands-on quality care for patients while working under the supervision of a licensed professional. Students who complete the program are eligible to take the NYS Nurse Assistant Certification Exam.

STEM @ SUNY POLY/CNSE

OV 225 40 weeks 4 Credits

High school seniors participate in a rich program of project-based instruction, early college and hands-on learning in various advanced manufacturing and research settings. Students enroll in college course each semester and fulfill 23th grade English and Social Studies requirements for graduation. The goal is for each student to be exposed to a variety of careers in the emerging technologies and be encouraged to pursue careers in these fields after high school. Students will interact with professionals in science and technology.

NEW VISIONS

(Seniors Only)

New Visions programs are designed for highly motivated high school students who are seniors and who possess a strong academic foundation, a desire to get a head start on college and make informed career choices. It provides students with rigorous classroom instruction that is linked with career exploration. Students also take college courses and can earn between 8 and 15 college credits.

NEW VISIONS EMERGENCY PREPAREDNESS, HOMELAND SECURITY, CYBERSECURITY AND INFORMATICS

OV216 40 Weeks 4 Credits

Located at SUNY Albany, this program focuses on preparing students for emerging in-demand career fields in cyber security, government intelligence, web technology, homeland security, counter terrorism, and cyber espionage. Students will focus on leadership, public administration, management, risk analysis, ethics, policy making, planning, strategic communication and systemic thinking through mock threat assessments, guest speakers, and field trips.

ACADEMY FOR EDUCATIONAL CAREERS

OV214 40 Weeks 4 Credits

Located at SUNY Albany, along with college coursework, students will incorporate hands on experiences including observations, shadowing, and internship experiences with a variety of professionals. Students will also have mastery of the content needed to obtain a NYS Level 1 Teaching Assistant certification for immediate employment.

NEW VISIONS SCIENTIFIC RESEARCH AND WORLD HEALTH

OV210 40 Weeks 4 Credits

Located at SUNY Albany East Campus in East Greenbush, students do hands on research and participate in multiple rotations throughout the year with scientific specialist and public health professionals. The program is designed for students seeking careers in biological sciences, including medicine, nursing, pharmacy, biomedical research, etc.

NEW VISIONS MEDICAL

OV108 40 Weeks 4 Credits

This program is open to seniors interested in learning about a variety of high demand occupations in medical and emergency services. Utilizing classroom instruction, professional speakers and rotations at local health-related facilities, student will establish a solid foundation for pursuing a career in the fast-growing field of healthcare. Student will be trained as a NYS Certified First Responder.

NEW VISIONS STEM

OV220 40 Weeks 4 Credits

Located at Rensselaer Polytechnic Institute in Rensselaer County, this program blends practical experience with classroom instruction and exposes students to various engineering fields, research, studies in mathematics, technology and other sciences. It is ideal for students who are planning to study engineering or physical science in college.

NEW VISIONS VISUAL AND PERFORMING ARTS

OV230 40 Weeks 4 Credits

Located at the Arts Center of the Capital Region in downtown Troy, students learn about the business of art and the techniques through a curriculum that blends college-level education with practical experience. Students participate in workshops and classroom instruction while gaining experience with local artists and art related businesses. Topics of study include: preparing the college application, audition and /or portfolio; filmmaking; songwriting and recording; playwriting and performance; and the art show.

TECH VALLEY HIGH SCHOOL

(Begins in Grade 9)

Tech Valley High School (TVHS) is a four year program located on the campus of SUNY Polytechnic Institute's Albany Nanotech Complex, The program is built on the principles of project-based learning and collaboration. Students engage in hands-on projects based in authentic applications of New York state learning standards. Through project-based learning, students collaborate on meaningful projects that require critical thinking, creativity, and communication to answer challenging questions or solve complex problems.

Columbia's Alternate Program (CAP)

What is **CAP**? **CAP** is Columbia High School's Alternate Program designed to serve approximately 50 students. **CAP** is a school site program assisting students who have demonstrated a combination of at-risk characteristics including academic failures, school discipline issues, family or community difficulties, substance abuse, teen pregnancy and legal issues. Students must meet Columbia High School's and New York State Regents' graduation requirements to receive their high school diploma. **CAP** has proven to be an effective program for several reasons:

- Small class size allows for individualized instruction
- Self-Leadership class – focusing on self-concept and teen issues
- Academic remediation and independent study opportunities
- Department Chair to monitor overall student progress
- **CAP** Social Worker to assist with student challenges
- Small group counseling opportunities
- **CAP** Principal to assist with program management, community opportunities, and student discipline
- Teacher Assistant and Attendance Monitor to work with students and families

WHAT COURSES DO CAP STUDENTS TAKE?

CAP students may take any course offered at Columbia High School for which they are eligible. All core subjects are taught by the **CAP** teachers including:

- Intro to Algebra I and Intro to Algebra Two
- Living Environment and Earth Science Essentials
- Social Studies 9, 10, 11, and 12
- English 9, 10, 11, and 12
- Self –Leadership

HOW DOES A STUDENT ENROLL IN CAP?

Students may be referred to **CAP** by any Columbia High School staff member, by a parent or guardian, or by a representative of a human service agency. Students may also make a self-referral. Once a student is referred, the following steps occur:

- Assessment of academic records by the **CAP** staff
- Input from teachers, principals, and the Child Study Team
- Initial approval by the **CAP** staff
- Final approval for admittance by the Child Study Team

If a student is selected for **CAP**, the following admission procedures occur:

- Student interview with a parent/guardian present
- Student and parent/guardian sign **CAP** contract

Students who make a responsible effort and sincere commitment to **CAP** can expect to graduate and earn diploma. **CAP** students can enhance their self-image, coping skills, methods of conflict resolution, and gain a more mature sense of individual responsibility. **CAP** students will also gain a broad knowledge of resources to assist them with individual challenges.

Operation Graduation (OG)

What is Operation Graduation?

Operation Graduation is designed as a small learning community within Columbia High School to work exclusively with students who are at-risk of not meeting their graduation requirements. The program was designed primarily for students who should be in their senior year of high school, although in extreme circumstances, students in their third year of high school (Juniors) are accepted.

Staffing:

The program is staffed by one special education teacher (program leader), one teaching assistant, part time math, social studies, physical education and science teachers. The program also utilizes counseling support within Columbia High School, and has a contract with a consultant who works with students and staff two hours per week to educate students about opportunities for work, college, and life beyond high school. The program is administered by one of the Assistant Principals of Columbia High School.

Structure:

The structure of the Operation Graduation program was designed to meet the specific needs of at-risk students. Students take all classes in one room that is separated from the other students in the High School building. Students also enter and exit the building from a separate door adjacent to the room and are provided with transportation to fit the unique schedule of the program. The school day starts at 8:15 am and is the length at which the individual student's academic needs dictate. Each class is 30 minutes in length. Students may be enrolled in all day OG classes and/or CHS courses as needed. Mandatory community service participation is also required.

Entrance into the Program:

Students are considered as candidates for Operation Graduation as a result of recommendations from guidance counselors, teachers, and parent or student interest. Operation Graduation and guidance staff also research potential candidates through evaluation of Cohort Reports. These reports rank all students in a particular cohort by the number of credits and requirements earned toward graduation. Once a candidate is identified, an application is completed that includes the student's academic history, special education needs, and credit deficiencies. Applications are reviewed by Operation Graduation staff and the building Principal. It is preferred that students enter the program at the beginning in September; however, students can be accepted at any time throughout the year.

Courses Offered:

Courses offered in the Operation Graduation program include subjects in the areas of Math, Science, Social Studies, English, Physical Education and an elective. Students may also be enrolled in courses on APEX to recover credit as needed. There is an emphasis on transitional life skills and career/job readiness. Although it is rare, some students can also be enrolled in a course outside of the program, such as art or health, if it is required for graduation and cannot be offered within the program.

Progress Monitoring:

The progress of students enrolled in Operation Graduation is closely monitored and staff communicates with parents frequently. Meetings are held with students, parents and guardians at the first sign of any academic or behavioral concerns. Parents are also contacted by program staff when any student is absent to verify the absence and to plan for the student's return. Grades and progress reports are sent to parents every five weeks. Columbia staff and District leaders visit the program frequently to provide support and celebrate student success.

JumpStart

What is JumpStart?

JumpStart provides students with academic, social and emotional support. The program is a combination of classes in a small group setting (Math, English, Social Studies and Science) and mainstreamed classes (Art, Music, PE and lunch). The small group aspect provides students with a “safe haven” establishing a comfort zone to ease the transition to the High School.

Staffing

JumpStart has a Support Teacher and a Teaching Assistant who provide the majority of support. The Support Teacher teaches Math and Instructional Support (ISP). Instructional Support Class provides organizational and academic support, and is used to administer test modifications for students with IEP’s. A Literacy teacher and Speech Therapist provide direct consultant teacher support in the English class. In an attempt to create independence and diversity of instruction, students have core teachers for Social Studies, Science and English in a small group setting. Core classes are supported by the Support Teacher and/or Teaching Assistant.

Structure

Small group classes for core areas provide a consistent level of support to achieve academic success and to focus on skills necessary in preparation for their sophomore year.

Entrance into the Program

Goff teachers, school counselors and administrators play an integral role in the recommendation of students for the JumpStart Program. The JumpStart Team reviews recommendations and meets with potential candidates to ensure a proper placement.

Courses Offered

JumpStart courses include: 9R English, 9R Social Studies, Intro to Algebra I, Living Environment, Art or Music and PE.

Progress Monitoring

Team members maintain a constant level of communication to evaluate individual social, emotional and academic concerns. Meetings are held with students and parents/guardians prior to entering the program and throughout the year. Communication with parents/guardians is a crucial component to the students’ success.

Distance Learning

The distance learning network is a two-way, fully interactive, full motion video and audio system connecting specially designed classrooms in participating school districts. The network uses fiber optic cable and telecommunications technology to enable a teacher and their students in a distance learning classroom in one school to see, hear, and talk to students in comparably equipped classrooms in other schools on the network. The simultaneously interactive environment means that the teacher and all the students remain in visual and verbal communication at all times during a class. Presently there are forty-four (44) sites with over eleven hundred (1100) students and eight-five (85) classes currently in the project. Offerings through Distance Learning will be communicated in April to parents and students. Students can then request courses through his/her counselor. Some courses may require prerequisites. Course selections will be maintained through the guidance department. In addition, each student and parent will be required to sign a student agreement form.