Coxsackie-Athens High School

Course Guide & Program of Studies

2022-2023

Coxsackie-Athens High School
Course Guide
2022-2023

Leadership Team:

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Mrs. Jessica Amato
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A MESSAGE FROM THE PRINCIPAL:

At Coxsackie-Athens High School, we want all students to take an active role in planning their academic program, choosing courses to meet personal and academic goals in order to "achieve extraordinary success". The faculty and staff at C-A strive to help!

Your schedule will be built around a core of required subjects that give you the skills you will need to be an engaged, productive citizen. By carefully selecting elective courses that meet your academic needs and satisfy your interests and abilities, you can build a program tailored to you. You are encouraged to consult with your parents, teachers, and school counselor to plan a program of studies that will be challenging and rewarding.

William Behrle
Principal
Coxsackie-Athens High School

GRADUATION REQUIREMENTS:

In order to graduate from Coxsackie-Athens High School, students must fulfill the course and examination requirements, as required by the New York State Department of Education. In keeping with state and district standards, the high school offers several possible diplomas and credentials. Diploma and credential requirements are updated yearly by the New York State Department of Education (latest update, July 2020).

All students are expected to challenge themselves to work toward their highest potential (please see graduation requirements below). Unless noted in the departmental course listings, a year-long course is equal to one credit toward graduation, and a semester course earns one-half credit. In some cases, every 4th day courses that meet all year will earn a half credit.

Credit Requirements (Apply to all diploma types, Local, Regents, Regents with Advanced Designation)

Required Courses	Minimum Number of Credits
English	4
Social Studies *Distribution as follows:* *Global History & Geography (2)* *US History (1)* *Participation in Government (½)* *Economics (½)*	4
Mathematics	3
Science *Distribution as follows:* *Life Science (1)* *Physical Science (1)* *Life or Physical Science (1)*	3
Language Other than English (LOTE)	1
Health	.5
The Arts	1
Physical Education	2
Electives	3.5
Total	**22**

Testing Requirements

Students must demonstrate competence in reading, writing, math, science, and social studies by passing the examinations listed below:

Criteria to earn a Regents Diploma (passing score – 65%)

1. English Language Arts Regents Examination (one exam)
2. Social Studies Regents Examination (one exam)
3. Mathematics Regents Examination (one exam)
4. Science Regents Examination (one exam)

AND ONE OF THE FOLLOWING:

- A score of 65+ on a fifth Regents exam in Social Studies, Math OR Science
- A state-approved Career and Technical Education Programs
- A state-approved Arts Pathway (Advanced Placement Studio Art)
- C-DOS Pathway Career Plan (216 hours and CTE coursework plus 54 of those hours in a work-based learning experience plus the completion of an employability profile and career plan. The 54 hours do not need to be in the same program as the coursework.)

Criteria to earn a Regents Diploma with Advanced Designation (passing score – 65%)

Students seeking the Regents Diploma with Advanced Designation must:

- Meet the credit and assessment requirements for a Regents diploma; and
- Pass two additional Regents exams or department approved alternatives in mathematics; and
- Pass one additional Regents exam or department approved alternative in science
- Students seeking advanced designation must pass at least one Regents exam or department approved alternative in both sciences (one life and one physical); and

Complete a sequence:

- Earn an additional two units of credit in LOTE (for a total of three LOTE credits) and pass a locally developed Checkpoint B LOTE examination, or
- Complete a five-unit sequence in the Arts, or
- Complete a five-unit sequence in CTE

Special Endorsements for Diplomas

Honors: A student earns a computed average of at least 90 on the Regents examinations applicable to either a Regents diploma or a Regents diploma with advanced designation. No more than two department approved alternatives can be substituted for Regents examinations. The locally developed Checkpoint B LOTE examination is not included in the calculation.

Mastery in Math and/or Science: A student meets all the requirements for a Regents diploma with advanced designation AND earns a score of 85 or better on three math Regents examinations and/or three science Regents examinations.

Technical Endorsement: A student meets the requirements for either a Local diploma, a Regents diploma or a Regents diploma with advanced designation AND successfully completes a Department approved CTE program including a technical assessment.

Criteria to earn a Career Development and Occupational Studies Commencement Credential: A CDOS Commencement Credential can be used as a standalone high school exiting credential that shows students meet work readiness criteria, a supplement to a high school diploma, or to help meet Regents

Diploma requirements as outlined above. To successfully meet CDOS Commencement Credential requirements, students must complete a career plan and demonstrate attainment of career exploration and development learning standards. CDOS requirements integrate academic course work and workplace readiness skills. Students must complete the equivalent of two units of study in Career and Technical Education course work, including 54 hours of work-based learning and at least one employability profile.

Languages Other than English (LOTE) Exempt Students Students with a disability may be excused from the required units of credit in LOTE if so indicated on their IEP, but they must still earn 22 units of credit to graduate. A LOTE exempt student who seeks a Regents diploma with advanced designation does NOT have to complete the five-unit sequence in the Arts or CTE in lieu of LOTE in order to meet the assessment requirements for the advanced diploma.

Superintendent Determination of a Local Diploma Students with a disability who are unable to attain a Local diploma through the various safety net provisions may be eligible for a Superintendent Determination of a local diploma under certain conditions. See Superintendent Determination Option for Graduation with a Local Diploma on NYSED.gov.

QUESTAR III CAREER AND TECHNICAL EDUCATION CENTER

If you are planning to enter a career and technical education program, you will need to successfully complete the following courses and regents exams in Global History, Math, and Science during your 9th and 10th grade year:

2 credits of English
2 credits of Social Studies and Global History Regents exam
2 credits of Math and 1 Math Regents exam
2 credits of Science and 1 Science exam
1 credit of LOTE
1 credit of Art/Music
1 credit of Physical Education
½ credit of Health (preferred)

In the last two years of high school, a student who opts to enhance his or her high school experience with a career and technical education program at Questar III will split his or her day between Coxsackie-Athens High School and Questar III. Some students may be able to complete various integrated courses at Questar III. These courses can be used to fulfill graduation requirements. Please note that most students attending a two-year QUESTAR program will earn a Regents diploma.

See your school counselor for a full list of integrated credits and how your choice of program meets with current graduation requirements. Below is a list of current Questar III programs. All programs are located at the Columbia-Greene Educational Center in Hudson, unless otherwise indicated.

- Agriculture Science (located at The Durham School in Durham)
- Automotive Technology
- Aviation
    - Pilot/Flight pathway

    - Drone/Non-Flight pathway
- Construction Technologies
- Cosmetology
- Criminal Justice
- Culinary Arts
- Heating,Ventilation, Air Conditioning, Refrigeration (HVAC/R) & Green Technologies
- Heavy Equipment Operation & Maintenance (located at The Durham School in Durham)
- Pathways in Education
- Welding/Metal Fabrication

Career Studies

These programs are available for students with disabilities:

- Automotive Services
- Building Trades
- Career Exploration
- Introduction to Employment
- Introduction to Food Services

For High School Seniors Only

- Certified Nursing Assistant (CNA)
- Emergency Medical Technician (EMT) & Health Careers
- Theater Institute at Sage (TIS) [one semester program only] (located at Sage College in Troy)

New Visions

These programs are designed for college-bound seniors who are in the top 20% of their class. New Visions programs are offered to challenge and enlighten highly motivated seniors who have decided on their future career field.

Questar III Programs

- Emergency Preparedness, Informatics, Cyber and Homeland Security (EPICH) (located at SUNY Albany)
- Medical (located at Samaritan Hospital in Troy)
- Pathway In Education (PIE) (located at SUNY Albany)
- Science, Technology, Engineering & Math (STEM) (located at Rensselaer Polytechnic Institute in Troy)
- Scientific Research & World Health (located at SUNY Albany's Health Sciences Campus in Rensselaer)
- Visual & Performing Arts (located at The Arts Center of the Capital Region in Troy)

The Questar III Course Catalog can be viewed at www.questar.org (this includes Questar III New Visions programs). All students are encouraged to speak with parents, teachers and school counselors if he or she is interested in supplementing his or her high school career with a career and technical program.

COXSACKIE-ATHENS HIGH SCHOOL: COLLEGE CREDIT OFFERINGS

ADVANCED PLACEMENT (AP) COURSES

- AP Biology
- AP Calculus AB
- AP English Language and Composition
- AP Literature and Composition
- AP Music Theory
- AP Studio Art: Drawing
- AP United States History
- AP World History

COLLEGE IN THE HIGH SCHOOL PROGRAM: SCHENECTADY COMMUNITY COLLEGE

- Music Fundamentals MUS 147, 3 college credits (C-A Course-Music Theory College)

COLLEGE IN THE HIGH SCHOOL PROGRAM: SUNY POLYTECHNIC

- Introduction To Engineering ESC 110, 3 college credits (C-A Course-Introduction to Engineering 1 College)
- Design Tools & Processes ESC 120, 3 college credits (C-A Course-Introduction to Engineering 2 College)

COLLEGE IN THE HIGH SCHOOL PROGRAM: COLUMBIA-GREENE COMMUNITY COLLEGE

- Accounting, Financial AC 101, 3 college credits (C-A Course-Accounting College, Semester 1)
- Accounting, Managerial AC 102, 3 college credits (C-A Course-Accounting College, Semester 2)
- American Sign Language I SN 101, 3 college credits (C-A Course-American Sign Language 3 College)
- American Sign Language II SN 102, 3 college credits (C-A Course-American Sign Language 4)
- Basic Drawing AR 119, 3 college credits (C-A Course-Advanced Drawing and Painting College)
- Biology, General BI 101/101L, 4 college credits (C-A Course-AP Biology)*
- Business Math MA103, 3 college credits (C-A Course-Business Math College)
- Calculus I MA 122, 4 college credits (C-A Course-AP Calculus)*
- Ceramics I AR 106, 3 college credits (C-A Course-Ceramics College)
- College Physics I PX 101, 4 college credits (C-A Course-Advanced Physics College)
- Composition EN 101, 3 college credits (C-A Course-AP English Language)*
- Composition and Literature EN 102, 3 college credits (C-A Course-AP English Literature)*
- Computer Essentials CI 101, 3 college credits (C-A Course-Computer Essentials College)
- Contemporary Constitutional Issues PS 130, 3 college credits (C-A Course-Government College)
- Digital Photography AR 135, 3 college credits (C-A Course-Photography College)
- Environmental Studies BI 113, 4 college credits (C-A Course-Environmental Science College)
- General Psychology PY 101, 3 college credits (C-A Course-Psychology College)
- Microeconomics EC 102, 3 college credits (C-A Course-Economics College)
- Spanish III SA 201, 3 college credits (C-A Course-Spanish 4)

- Spanish IV SA 202, 3 college credits (C-A Course-Spanish 5)
- United States History 1492-1865 HI 103, 3 college credits (C-A Course-AP US History, semester 1)*
- United States History 1865-Present HI 104, 3 college credits (C-A Course-AP US History, semester 2)*

Students must generally be juniors or seniors with an 80% or higher GPA in the subject area to meet eligibility criteria. Students can enroll in a maximum of 11 credit hours per semester. CGCC will send acceptance/rejection decisions, letters, and bills directly to the student/family. For any billing and registration questions, please call CGCC directly at 518-828-4181. CGCC application paperwork must be completed and returned to the Counseling Office in early September for some courses and early January for other courses. Please check with your teacher or the Counseling Office regarding when the paperwork for your class is due during the school year.

CGCC will not accept applications for students to receive college credit past the deadlines!

*Students can opt for AP-level credit (by taking the AP exam for approximately $94.00) and/or for CGCC credit. Please consult your School Counselor and/or College Admissions Counselors to determine whether you should take the AP Exam or opt for CGCC credits.

Please note that some courses offered via the Distance Learning Lab may also offer college credit. Please check with your school counselor or teacher each year about these offerings.

PROMOTION FROM ONE GRADE TO THE NEXT/CLASS STATUS

In general, the promotion from one grade to the next will be contingent upon a student passing all of the required subjects, resulting in the accumulation of credits. The credit thresholds for each class are as follows:

Freshman:	N/A
Sophomore:	5.50 credit minimum
Junior:	11.00 credit minimum
Senior:	16.50 credit minimum

Specific situations and special circumstances may be reviewed by the building principal.

COURSE CHANGES: DROP/ADD

Each year, as students work with their counselors, teachers and parents to make their selections for courses for the upcoming year, it is important that they do so with great care. Opportunities to change courses once the school year has begun are very limited. Course changes may only be made for the following reasons during the first two weeks of the school year:

- A student failed the prerequisite course
- A student went to summer school and no longer needs the course
- A student is repeating the same course with the same teacher
- Clerical error; ie. two courses assigned at the same time

- A student would like to enroll in a more challenging level of a course
- A student would like to fill a study hall
- Medical considerations that are documented by a physician
- Adding courses with a specific teacher's recommendation

Drop/add for other reasons take place after the second week of school. Course changes resulting in the drop of a course after the third week of the school year or semester will result in a "DP" or "DF" on the student's transcript.

COURSE GUIDE
COXSACKIE-ATHENS HIGH SCHOOL
2022-2023

The remainder of this Guide to Program Planning is made up of the courses that each department at Coxsackie-Athens High School may offer, in its totality, each year. **Please be advised that each year the courses that are actually offered are always dependent upon sufficient student enrollment and interest, budgetary and staffing constraints, as well as programmatic shifts which may occur after the Guide is completed each winter.**

Working closely with your counselor and parents, you should work to select the courses that best move you toward meeting NYS graduation requirements, while also meeting your needs and interests in terms of post-secondary plans.

NB: While this Course Guide does include courses that C-A teachers will offer to others through distance learning, the courses we will be able to offer from other schools are not finalized as of this draft. Students will be provided with a Distance Learning Addendum as soon as those course offerings become available.

BUSINESS EDUCATION

Entrepreneurship **Grades 9-12** **1 credit**

The **INCubatoredu** program transforms the traditional high school classroom into a place of collaboration and practical, project based learning. Teams of students work to create their own business designed to tackle real challenges and bring their ideas into the real world with personal mentorship from a local business leader. Inside of a normal school day, students leave school and go to work in a redesigned physical classroom that encourages collaborative interaction. At the end of the semester, the new business owners will have the opportunity to pitch their business to real investors to make what was once only a dream a reality. Visit www.incubatoredu.org

Social Media Marketing **Grades 9-12** **½ credit (F)**

This course is designed to build students' social media marketing skills by utilizing projects that give students hands-on experience implementing social media marketing strategies. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Upon completion, students should be able to use social media technologies to create and improve marketing efforts for businesses or personal branding

Business Math College **Grades 11-12** **1 credit**

Guidelines: Two successfully completed years of HS math.

Studies the application of basic principles of business mathematics to provide skill in calculating and solving practical business and financial mathematical problems. Mathematics relating to retailing, manufacturing, banking, and consumers will be covered. Some algebra skills will be taught and used within the context of business mathematics problems. **This course can be used to meet the third math credit for graduation. College Credit through Columbia Greene Community College.**

Accounting College **Grades 11-12** **1 credit**

Guidelines: Two successfully completed years of HS math.

This first-year course is a comprehensive, two-semester, one-year course designed to bring the real world of accounting into the classroom. The first half of the course is Financial Accounting (AC101) that will introduce students to financial accounting and financial reporting for business entities and use spreadsheets and business computers applications to post and create, source documents, journals, ledgers and financial statements, to process and complete the nine step accounting cycle. The second half of the course is Managerial Accounting (AC102). Applications of financial accounting concepts and financial statements are used to complete cash flow analysis, cost system designs, planning, controlling business operations, and decision making. Simulations of real business scenarios will be undertaken and presentations of findings done using spreadsheets and other business computer applications.

This course can be used to meet one math credit for graduation. This course will be offered on site in the Distance Learning Lab at C-A High School and shared with other schools throughout the Capital Region. College Credit for AC101 (Financial Accounting) and AC102 Managerial Accounting available through Columbia Greene Community College.

Computer Essentials College **Grades 11-12** **1 credit**

This is a full year course that is centered on the computer and the keyboard. The students will focus on not only learning the proper key techniques, but also on various word processing formats needed for school and career. The programs used in the class are Microsoft Word, Excel, Access, and PowerPoint. Other topics covered are basic computer concepts and projects from each of the Microsoft Office programs. There is also a potential for Microsoft Office certification for this class. **Students may opt to take this course for college credit through Columbia Greene Community College**. ***10th graders are generally not awarded college credit.***

Seminar

College Seminar **Grade 12** **1 credit (F)**

College Seminar Fall is intended for 12th grade students who will be applying for college. The goal of this class is to better prepare students for college. This course will help support student understanding of the processes associated with preparing for college. Topics to be covered include Admissions, Financial Aid/FAFSA, Communicating with a Professor, Course Selection, SAT/ACT, Declaring a Major, Prerequisites vs. Major-Related Prerequisites, and How To's of Going to College. Field trips may include tours of area colleges.

College Research **Grade 11** **1 credit (S)**

College Research Spring is intended for 11th grade students who are interested in researching and applying to college. The goal of this class is to better prepare students for college. This course will help support student understanding of the processes associated with preparing for college. Topics to be covered include Admissions, Financial Aid/FAFSA, Communicating with a Professor, Course Selection, SAT/ACT, Declaring a Major, Prerequisites vs. Major-Related Prerequisites, and How To's of Going to College. Field trips may include tours of area colleges.

Mentoring Seminar **Grades 10-12** **1/2 Credit (F)**

This course is designed to create mentors throughout C-A High School. The students will be molded to become mentors for students within the middle school and elementary schools. They will be asked to do different things to help the younger students here at C-A including help with homework, classroom, recess time and different activities.

9th Grade Seminar **Grade 9** **1/2 credit (S)**

9th Grade Seminar is a course designed to promote a successful transition between middle school and high school. Students will learn study/organizational skills and time management in order to improve academic success and will be provided with resources to orient them to their new building. In addition students will engage in lesson activities to improve the social, emotional, and academic skills of high school students and strengthen relationships between students and teachers as well as among students. The class lessons and activities are built upon five social and emotional competency areas: social awareness, self-awareness, self-management, relationship skills, and responsible decision making.

ENGLISH LANGUAGE ARTS

English 9 **Grade 9** **1 credit**

English 9 includes the study of literature (both fiction and nonfiction), vocabulary, and writing. The emphasis of the course will be on literature with a general survey of major works and authors and an explanation of literary terms and devices. This course begins to lay a foundation for the Common Core Regents Exam. This course will highlight close reading and analysis of texts, source-based arguments and oral presentations In addition, writing improvement with related lessons in sentence structure, punctuation, and grammar will be stressed. Formal book reports and a research paper will be required.

English 10 **Grade 10** **1 credit**

English 10 emphasizes the importance of fundamental literacy skills and its principles are applied in the exploration of vocabulary development, literary analysis, and progression toward mastery of the literary conventions of standard written English. Critical literary analysis is focused principally upon works of nonfiction, and students are expected to refine their understanding of the purpose and characteristics of various literary genres. Grammar, syntax, reading comprehension, and clarity and logic in writing are studied widely. Formal analytical book reviews and an MLA citation style research project are among many required writing projects. Sharp focus on vocabulary and etymology contribute to students' college preparatory linguistic skills.

English Honors Program: **Available in grades 9 and 10** ***(as scheduling allows)*** **1 credit**

Honors English is designed to challenge students who are highly motivated and academically capable by providing enriched opportunities for growth in language studies and analytical thinking skills. The program begins in eighth grade and can culminate in Advanced Placement English. The honors program offers enriched critical thinking, reading, and writing opportcredities designed to prepare students for success in Advanced Placement English and to provide enhanced preparation for college.

English 11 **Grade 11** **1 credit**

English 11 provides an exploration of literature, both fiction and nonfiction, focused on American Literature. This course also provides preparation for the Common Core Regents Exam. Close reading and analysis of texts, along with source-based written arguments, will be emphasized. Students must also complete a researched argument paper (research paper) for this course. Enrichment reading outside of class may be required. All juniors will take the English Language Arts (ELA) Common Core Regents Examination.

AP Language and Composition **Grade 11 and 12** **1 credit**

Advanced Placement Language and Composition is the equivalent of a first-year college composition course and is designed to develop a student's ability to write college-level expository essays and research papers, as well as to understand and interpret college-level readings across disciplines. Types of expository writing assignments may include – but are not limited to – descriptive, narrative, example, definition, process analysis, cause-and-effect, comparison-contrast, and persuasive essays, as well as formal research papers. Students will also write in response to visual imagery. Readings will be primarily nonfiction prose and will serve both as writing prompts and as models of accomplished expository writing. Additional readings may also include various forms of fiction. This is a reading and writing intensive course. Furthermore, students are expected to participate in class discussion, peer editing and revision, and in-class publication of their writing. Students may take the AP Exam in May. There is a cost for this exam. See your counselor for this year's fee. In addition, **students may opt to take this course as "EN 101: Composition" for Columbia-Greene Community College credit.** The CGCC college catalog describes EN 101 as: "An introductory course emphasizing the process and patterns of writing college-level expository prose. Included are reading assignments; extensive practice in writing clear, well-developed, grammatically correct essays; a research paper; and an oral presentation." Please note that acceptance to the college-credit course is totally at the discretion of the college.

AP Literature and Composition **Grade 12** **1 credit**

Guidelines: AP Language and Composition

Advanced Placement Literature and Composition is a college-level course designed to develop a student's abilities as a reader and writer, especially as a critic of literature. Readings include short stories, drama, novels, and poetry with an emphasis on works originally written in English. Students will write pieces including: critical/analytical essays, college-application essays, and a research paper. Students are expected to participate in class discussion to test and develop their thinking about works of literature. Students may take the AP Exam in May. There is a cost for this exam. See your counselor for this year's fee. This course continues the reading and writing of EN 101. In addition, **students may opt to take this course as "EN 102: Composition and Literature" for Columbia-Greene Community College credit.**

Journeys Through Literature **Grade 12** **½ credit (F)**
This is a one semester course for the college-bound student, and should be considered for all students planning on attending college. This course will focus on analyzing literature through discussion and writing. Emphasis will be placed on building analytical reading and writing skills to prepare the student for a freshman university literature course.

World Literature **Grade 12** **½ credit (S)**
This is a one semester course for the college-bound student, and should be considered for all students planning on attending college. This course will continue to focus on analyzing literature through discussion and writing. Emphasis will be placed on building analytical reading and writing skills to prepare the student for a freshman university literature course.

Film Literature **Grades 11-12** **½ credit (F&S)**
Students will read classic and culturally-significant novels or stories in order to fully grasp them and fictional writing as they relate to our world today. Through this work and discussion, students will leave the class with more cultural knowledge, life-ready skills, and better comprehension of fiction writing, its significance, and how stories and ideas are translated through text or film. Stories such as *E.T: Extra-Terrestrial*, *Jurassic Park*, *Jaws*, etc. will be studied and discussed.

Publishing **Grades 9-12** **1 credit**
This elective course combines the formerly separate "Yearbook" and "Journalism" classes. Much of the focus of this course will be directed toward producing the annual Yearbook for the C-A High School community. Producing the Yearbook is a challenging, detail-oriented task that involves marketing, desktop publishing, page design, writing and photography. Commitment and teamwork are essential to successfully producing a quality Yearbook. In addition, Publishing will provide elements of an introductory course in Journalism, focusing on reporting, writing and editing. Students will produce work for the C-A Circuit, our student newspaper that is published online. Suggested maximum enrollment is 12 students.

Interactive Literature in Games **Grades 9-12** **1 credit**
Books, audio/podcast dramas, television shows, and films/movies are often thought of as sources of compelling storytelling…but what about games? Well, as it turns out, there *do* exist games that offer thought-provoking narratives…and unlike other forms of media that are passively consumed, games *require* dynamic engagement from the player in order for their story to unfold. In this course, students will analyze and discuss a variety of games known for worldbuilding and character development (e.g. *Dungeons and Dragons, Fiasco, Gloom, Journey, Psychonauts, Stanley Parable, Thomas Was Alone, Undertale, etc.)* and utilize creative writing skills as well as tools like Twine to craft your own interactive

story. Students will be expected to come prepared to collaborate and experiment with the creative design process of digital storytelling with a growth mindset and the willingness to be adaptable.

Media Production for Fictional Work **Grades 9-12** **1 Credit**

This course is designed for students with the ambition to build a portfolio of fictional video-based media production work. Students will be expected to work through not only the creative writing process, but also the persuasive writing process in order to pitch their projects for approval. Projects may include working on a short film, developing a comedic or dramatic series intended for a TV or YouTube audience, creating a music video, and more. Students will be expected to be willing to collaborate to support each other's efforts as projects will demand roles and responsibilities both on and off-camera. Prior experience with creative writing, camera work, video editing, and/or applying visual effects is helpful, but not required.

Media Production for Non-Fictional Work **Grades 9-12** **1 Credit**

This course is designed for students with the ambition to build a portfolio of non-fictional video-based media production work. This will include being a part of the team that produces weekly school announcements and editorials. Students may also pitch concepts for creating advertisements for existing products, public service announcements ("PSAs"), and short documentary work. Prior experience with journalism, camera work, video editing, and/or applying visual effects is helpful, but not required.

Creative Writing for Performance **Grades 9-12** **½ Credit (F)**

Have you ever wanted to write a dramatic play or a comedic sketch and have it be brought to life on stage? In this course, students will learn playwriting conventions and how to write for live performance with not only the actors in mind, but with stage crew and tech in mind as well. Projects will include drafting (and ideally, performing) monolog and short scenes. Students will be expected to be willing to collaborate to support each other's efforts and be flexible with rotating between acting, writing, and stage management support roles.

Visual Communications Design **Grades 9-12** **1/2 Credit (S)**

This course is designed for students interested in learning how to create and manipulate digital art assets using programs such as Adobe Photoshop and Adobe Illustrator for a wide range of practical applications, including (but not limited to): print/digital publishing, web design, still photography, graphic novels, and integration with livestreamed or edited video content. (Prior experience in Visual Arts classes or in English/Language Arts classes involving production of analog or digital media is helpful, but not required.)

HEALTH AND PHYSICAL EDUCATION

The purpose of our Physical Education classes will be to fulfill the commencement requirements from our New York State Physical Education Learning Standards: Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health. Students will acquire the knowledge and ability necessary to create and maintain a safe and

healthy environment. Students will understand and be able to manage their personal and community resources. Depending on schedule, students may be able to select from the following options:

Physical Education Basics **½ Credit**
Recommended for 9th and 10th graders

See below for subject areas offered within Physical Education Basics

Physical Education Techniques **½ Credit**
Recommended for 11th and 12th graders

See below for subject area offered within Physical Education Techniques:

Fitness:

Students will learn of the five major components of fitness and how to identify and address each of them. Students will create their own fitness goals and work with the teacher to create a plan that they will then follow for most of the semester.

Activities can include: Yoga, Pilates, circuit training, cardio kickboxing, cardio dance videos, Strength and Conditioning training, and/or weight loss programs using a combination of circuits, videos and cardio machines.

Recreational/Lifetime Activities:

The goal of this class is to educate the students in various lifetime sports and recreational activities. Students will learn the skills and knowledge needed to partake in these and other activities while also learning the etiquette related to these activities and community resources available to them.

Activities can include: Disc Golf, Canoeing/Kayaking, Self Defense, Juggling/Circus Skills, Hiking/Backpacking, Indoor Recreational games, Golf, Tennis, Biking, Snowshoeing, Winter outdoors, Badminton, Sand court volleyball, Outdoor Recreational games

Sports Education:

The goal of this class is to provide students a skills foundation in team based sports. Emphasis is placed on skills progression through sport specific strategic play. By actively participating in a Sports Education Program, the student will build a solid foundation of participation in team sports as players, coaches, and officials. Key concepts will include sportsmanship, team comradery, fairness, strategy and tactics.

Activities can include: Soccer, Field Hockey, Football, Basketball, Softball, Floor Hockey, Volleyball, Team Handball, Lacrosse, Ultimate Frisbee, Rugby, Track and Field, Badminton

Health **Grades 9-12** **½ credit**
This required course fulfills the NYS requirement of health education. This course will deal with a wide

range of personal, national and worldwide health concerns. The course will emphasize understanding the mental and physical health of others, as well as those which relate to you personally. Some specific topics will include: personality development and patterns, stress, communicable illness, use and misuse of drug substances, consumer health practices, problem drinking, world health concerns, physical fitness, trends in eating habits and special diets.

Nutrition and Wellness College **Grades 11-12** **½ credit (F)**

Guidelines: Health

Stress and Health is a specific response to the need of students to exercise greater control over the stressful events in their lives. Through promoting positive stress management techniques, the students will develop life-long skills for a healthier and more meaningful life.

Critical Issues in Health College **Grades 11-12** **0 HS credit, 3 college credit (S)**

Guidelines: Health

Self-Improvement provides students with the knowledge and skills necessary to acquire positive behavior change, including the adoption of a more healthful, productive and wellness-oriented lifestyle.

FAMILY AND CONSUMER SCIENCE (FACS)

Basic Foods and Nutrition **Grades 9-12** **½ credit (F)**

This 20-week class focuses on nutrition and basic food preparation techniques. There will be several weeks of preparation and demonstrations followed by 8 food labs featuring healthful recipes. Food science principles will be introduced throughout the term. Fitness activities are included in the curriculum. **Offered every other year (‘22-’23)**

Parenting and Child Development **Grades 11-12** **½ credit (S)**

The Parenting course will provide students with a broad foundation of the knowledge, skills, and attitudes necessary to promote quality growth and development of children and families in school, community, and workplace settings. Students will develop understanding of the diversity of families and how diversity impacts parenting choices and outcomes. Students will have the opportunity to examine the wide variety of career paths in community and family services, and to identify the knowledge and skills necessary for success within the field. Topics covered generally include understanding parenting, family structures, becoming a parent, nurturing children and families, guiding children, parenting challenges and transitions, and community and family advocacy. **Offered every other year (‘22-’23)**

Regional and International Foods **Grades 9-12** **½ credit (F)**

In the first half of the semester students will learn about and prepare food identified with the 8 regions of the United States. The second half will explore cultures and recipes from countries around the world. There will be preparations and demonstrations followed by 8 food labs. Throughout the 20 weeks students will learn about music, art, dance, religion, and literature associated with the regional U.S.A. and other countries. **Offered every other year (‘23-’24)**

Adulting **Grades 11-12** **½ credit (S)**

The ability to make knowledge-based decisions has become increasingly important as students learn to navigate the demands of the 21st century. Independent Living is designed to prepare students for the

realities and responsibilities of managing all aspects of adulthood: education, career, interpersonal relationships, civic involvement, and financial security. **Offered every other year ('23-'24)**

LANGUAGES OTHER THAN ENGLISH (LOTE)

Spanish 1 (Introductory Level) **Grades 9-12** **1 credit**
Students will develop the skills of listening, reading, writing, and speaking Spanish. New vocabulary and grammatical structures are presented. Students will practice this with their listening, reading, writing and speaking skills. Hispanic Culture will be introduced and weaved throughout their lessons.

Spanish 2 (Beginner->Intermediate) **Grades 9-12** **1 credit**
Guidelines: Spanish 1
Students continue to develop the skills of listening, reading, writing, and speaking Spanish. Review of previous as well as new vocabulary and grammatical structures are presented. More activities are conducted entirely in Spanish and additional materials are used to develop listening, reading, writing and speaking skills. Hispanic Culture will continue to be weaved throughout their lessons.

Spanish 3 (Intermediate) **Grades 10-12** **1 credit**
Guidelines: Spanish 2
Students continue to develop the listening, reading, writing and speaking skills at the intermediate level. As development of skills progresses, an active vocabulary is emphasized through partner activities. Students will be able to transition between past, present and future tenses. Cultural aspects will be examined during each unit. At the end of this course, students will take the Checkpoint B Regents Equivalency Examination. To pass both the course and the exam fulfills the language sequence requirement to earn an Advanced Regents Diploma.

Spanish 4 College **Grades 11-12** **½ credit (F)**
(High Intermediate)
Guidelines: Pass both Spanish 3 course and end of year equivalency exam.
This course is designed for the diligent and highly motivated student who wishes to further develop fluency in Spanish. Mastery of vocabulary and structure of the language continues in Spanish 4. Emphasis is placed on practical vocabulary and personal expression (both oral and written). Self-reflections and class discussions will help develop broader multi-cultural views of the world. Students may elect to apply for college credit for this course.

Spanish 5 College **Grade 11-12** **½ credit (S)**
(High Intermediate)
Guidelines: Spanish 4.
This class will be taught in Spanish and is for students who have successfully completed Spanish 4. Students are expected to speak Spanish in class. Students will further develop their fluency in communication skills using authentic materials. Students will study current events and will learn to express personal opinions. Individual research projects, both oral and written, will be presented at the end of each unit. Students may elect to apply for college credit for this course.

ASL - American Sign Language 1 **Grades 9-12** **1 credit**

This course is a complex visual/spatial language that employs precise hand shapes, movements and positions along with facial expressions and postures of the body to communicate specific meanings. ASL has its own grammar rules and is a natural language that has been developed over time by its users. ASL is the native language of many Deaf men and women, as well as some hearing children born to Deaf families, across North America. It is the fourth most common language used in the United States.

Students will:

- Acquire an introductory level of ASL vocabulary, ASL fingerspelling, and numbers
- Receptively and expressively comprehend knowledge of basic ASL syntax including necessary facial expression and body movement
- Perform basic ASL conversation skills
- Gain a basic understanding of the Deaf community and Deaf Culture

Each student is expected to use American Sign Language Skills for a final presentation about themselves as the culminating experience. **This course will be in the C-A Distance Learning Lab.**

ASL – American Sign Language 2 **Grades 9-12** **1 credit**

Guidelines: 1 year of American Sign Language with the knowledge of the manual alphabet and numbers as well as basic understanding of American Sign Language grammar.

Students will demonstrate intermediate receptive and expressive knowledge of American Sign Language (ASL) as well as make connections with Deaf Culture values and their associated behaviors patterns by comprehending short conversations, communicating in a wider array of situations in culturally appropriate ways and sharing American Deaf Culture information. A final presentation in American Sign Language is required. **This course will be in the C-A Distance Learning Lab.**

ASL- American Sign Language 3 College **Grades 10-12** **1 credit**

Guidelines: 2 years of American Sign Language with knowledge of the manual alphabet and numbers, as well as a basic understanding of American Sign Language grammar.

ASL 3 is an extension of ASL 1 and 2. Students will demonstrate proficiency with receptive and expressive knowledge of American Sign Language (ASL) as well as demonstrate an understanding and appreciation of American Deaf Culture values and their associated behaviors patterns, by comprehending a wide variety of conversations, presenting on every day and complex topics with sufficient vocabulary and demonstrate ease using culturally appropriate behaviors. **This course will be in the C-A Distance Learning Lab.** ***Credit via Columbia-Greene community College is available to students via this course.***

ASL-American Sign Language 4 College **Grades 11-12** **1 credit**

Guidelines 3 years of American Sign Language with knowledge of the manual alphabet and numbers as well as a solid understanding of American Sign Language grammar.

ASL 4 is an extension of ASL 1,2 and 3. This class will be taught in ASL. Students are expected to use ASL in class. Students will further develop their proficiency with receptive and expressive knowledge of ASL and Deaf Culture values. Students will develop real life dialogue skills through comprehension and production of a wide variety of conversations and complex topics. Appropriate use of cultural behaviors will also be incorporated throughout the course. **This course will be in the C-A Distance Learning Lab.** ***Credit via Columbia-Greene community College is available to students via this course.***

MATHEMATICS

Algebra Core **Grade 9** **1 credit**

A 15:1 course for our special education students. The curriculum of this course continues topics introduced in grade 8 and prepares students for the Common Core Algebra 1 Regents exam in June. Topics include linear and quadratic equations, inequalities, polynomials, radicals, rational functions, and statistics. Passing the Common Core Algebra 1 exam is a requirement for graduation.

Algebra 1 **Grade 9** **1 credit**

The curriculum of this course continues topics introduced in grade 8 and prepares students for the Common Core Algebra 1 Regents exam in June. Topics include linear and quadratic equations, inequalities, polynomials, radicals, rational functions, and statistics. Passing the Common Core Algebra 1 exam is a requirement for graduation. A graphing calculator is required for this course.

Applied Mathematics Core **Grades 10-12** **1 credit**

Guidelines:Algebra Core

For students who successfully completed Algebra Core, this course is an alternative to Topics in Geometry. This course will provide students with real work math skills that could be applied to future employment. This course will cover Algebra and Geometry concepts covered in career fields of interest to students such as forestry, agriculture, cosmetology, construction, graphic art, retail, culinary, medical, and auto mechanics in a smaller class size with additional adult support.

Topics in Geometry **Grades 10-11** **1 credit**

Guidelines: Algebra 1

This is a non-regents course designed to expose students to various topics in Geometry including Congruence and similarity of triangles, constructions, transformations, coordinate geometry, circles, logic, locus and right triangle trigonometry used to establish and verify geometric relationships. A local final exam is given in June. A graphing calculator is required for this course.

Geometry **Grade 10-11** **1 credit**

Guidelines: Algebra 1

This course is designed to prepare students for the NYS Common Core Geometry Regents given in June. Topics include Trigonometric functions, perpendicularity, parallelism, solid, coordinate, and transformational geometry, as well as informal and formal proofs. A graphing calculator is required for this course.

Geometry Honors **Grade 9** **1 credit**

Guidelines: Algebra 1 (in grade 8) and passing the Common Core Algebra 1 Regents Exam

This course is designed for the accelerated student who is working towards an Advanced Regents diploma. Topics include Trigonometric functions, probability, perpendicularity, parallelism, solid, coordinate, and transformational geometry, as well as informal and formal proofs. The NYS Geometry Regents exam is given in June. A graphing calculator is required for this course.

Intermediate Algebra **Grade 11-12** **1 credit**

Guidelines: 2-3 credits of mathematics

This course is designed for 11th or 12th grade students planning on attending college upon graduation

from high school. This course is designed to prepare students for a college level algebra course. The course builds on concepts started in Algebra 1, and delves deeper into the content by using complex applications and additional topics. This course covers the fundamentals of Algebra including, but not limited to, Graphing Linear Equations and Inequalities, Solving for Variables in Equations or Inequalities, Complex Numbers, Sets and Evaluating, Trigonometry, Trigonometric Applications, Rational Expressions, and Statistics and Probability. Students will work with each of these topics, at great length, to prepare for a college level algebra course.

Algebra 2 **Grade 11-12** **1 credit**

Guidelines: Regents Geometry

This course is designed for the student who is working toward the Advanced Regents diploma. Topics include advanced algebra, imaginary numbers and complex numbers, trigonometry, exponential and logarithmic equations. Focus will be on techniques of algebra necessary to be successful in Pre-Calculus. Students take the Algebra 2 Regents exam in June. A graphing calculator is required for this course.

Algebra 2 Honors **Grade 10** **1 credit**

Guidelines: Geometry Honors and passing the CC Geometry Regents Exam

This course is designed for the accelerated student who is working toward the Advanced Regents diploma. Topics include advanced algebra, imaginary numbers and complex numbers, trigonometry, exponential and logarithmic equations. Focus will be on techniques of algebra necessary to be successful in Pre-Calculus, college level mathematics, statistics and 5th year AP Calculus. Students take the Algebra 2 Regents exam in June. A graphing calculator is required for this course. This course meets for a double period every other day, and a single period on the opposing day.

Pre-Calculus College **Grade 11-12** **1 credit**

Guidelines: Algebra 2

Advanced algebra in this course will extend algebraic concepts of Algebra 2 CC to complex numbers, relations and functions, and circular functions. New topics include theorems used in solving higher degree equations and polar coordinates. Focus will be on techniques of algebra necessary to be successful in 5th year AP Calculus. Also time will be devoted to extended work with limits, theories, and techniques of differentiation. Emphasis will be on application to graphing functions, maximum and minimum problems (physics and economics), and related rate problems. A local exam will be given at the conclusion of the course. A graphing calculator is required for this course. A student may also earn 3 CGCC credits upon satisfactory completion of this course.

Advanced Placement Calculus **Grade 12** **1 credit**

Guidelines: Pre-Calculus

Enrollment in this course is restricted to students who have completed Pre-Calculus and have maintained an 85 average for four years of high school mathematics. The Advanced Placement Calculus AB course follows the Advanced Placement syllabus and students may take the AP test in May. Students who score a 3 or higher may earn college credits. A student may also earn 3 CGCC credits upon satisfactory completion of this course. Course study will include properties of functions, limits, differential calculus, and integral calculus. Use of symbolic differentiation and integration utilities is also included. A graphing calculator is required for this course. The cost of the AP exam is approximately $94.00.

Personal Finance **Grades 11-12** **1 credit**

Guidelines: Common Core Algebra Regents and 2 credits of mathematics

This course is designed to further vocational preparation for a business position and to meet the personal and consumer needs of students. Topics include mathematics related to personal finance, budgeting, debt, careers, income, taxes, insurance, bargain shopping, investing, consumer awareness and planning for retirement. A local examination will be given at the conclusion of this course. A four-function calculator is required for this course.

MUSIC AND PERFORMING ARTS

Music Theory College **Grades 10-12** **1 credit**

Students learn the basic fundamentals of tonal music. It is designed to develop competencies in the reading and writing of notes, rhythms, scales, key signatures, intervals, chords. Students learn to compose their own music. This class is suggested for students with knowledge of music. No guidelines needed, however, the ability to play an instrument or sing is strongly recommended. **Students may register for three college credits through Schenectady County Community College.**

Advanced Placement Music Theory **Grades 11-12** **1 credit**

Guidelines: Music Theory College

Designed to help serious music students deepen their knowledge of structure and repertory, this course includes sight singing, ear training, and study of chords, four-part writing and other traditional theory. Students also compose pieces in historical styles. This class is suggested for students with a very good grasp of musical knowledge and background and who are interested in potentially pursuing a degree in music in college. Students may choose to take the AP exam. The cost of the exam is approximately $94.00.

Band **Grades 9-12 (Meets Every other block)** **1 credit**
Band Flex **Grades 9-12 (Meets Every 4th Day)** **½ credit**

****Band and Chorus schedules may be adjusted to provide more frequent meetings*

A course in which the elements and structure of music are presented through the study, rehearsal, and performance of representative musical literature of varying styles and from different historical periods. A minimum of four public concerts will be performed during the school year, at which student participation is mandatory. Students will also be scheduled for one small group instrument lesson weekly, which will rotate periods. Admission is open to all students with at least three years of prior experience.

Chorus **Grades 9-12 (Meets Every other block)** **1 credit**
Chorus Flex **Grades 9-12 (Meets Every 4thDay)** **½ credit**

****Band and Chorus schedules may be adjusted to provide more frequent meetings.*

A course in which the elements and structure of Music are presented through the study, rehearsal, and performance of representative musical literature of varying styles and from different historical periods. Students will learn the basics of vocal technique as well as develop critical thinking skills through the analysis of musical elements, including form and text. Students are expected to participate in one evening concert each quarter as a major part of their grade as well as a few other performance opportunities that arise throughout the year. Student participation is mandatory for each evening concert and at graduation in June. Students will also be scheduled for small group vocal lessons weekly, which will rotate periods.

Piano **Grades 9-12** **½ credit**

This class is designed for students who want to learn how to play the piano. It is designed for beginner-level students (Students with no experience, those who play by ear, those who learn by watching YouTube videos, those who took lessons when they were younger, etc.).
Semester One - Students will learn skills to read song melodies with their right hand and chord symbol accompaniments with their left hand. Semester Two - Each student will create his/her own performance list of songs using the skills learned in semester one. Lessons are individualized, so students may repeat this course for additional credit, continuing to build skills and repertoire.

Introduction to Theater **Grades 9-12** **1 credit**

This course will provide an overview of the art, conventions, and history of the American musical style. Students will learn about the history and development of the form from its earlier days at the beginning of the 20th Century through to present day. Major developments in dramatic literature, major playwrights, and the evolution of theater will be studied. Students will analyze and watch several famous shows, from *Oklahoma* to *Rent* and *Wicked.* Creative projects will be present throughout the course, such as Tech Design to presentations on student chosen musicals. Introduction to Theater can be used to meet the Art/Music graduation requirement.

SCIENCE

Life Science Core **Grade 9** **1 credit**

Life Science Core is a course designed to lead into Regents Living Environment in 10th grade. This course covers the basics of graphing, lab skills, experimental design and scientific literacy by discussing fundamental topics from the Living Environment curriculum. This course does not end in a Regents exam, but will prepare students for a Regents level course or build a foundational understanding of the Life Science content. (Offered '22-'23)

Physical Science Core **Grade 9** **1 credit**

Physical Science Core is a course designed to lead into Regents Earth Science in 10th grade. This course covers the basics of graphing, lab skills, experimental design and scientific literacy by discussing fundamental topics from either the Earth Science, Chemistry or Physics curricula depending on the instructor. This course does not end in a Regents exam, but will prepare students for a Regents level course or build a foundational understanding of the Physical Science content. (Offered '23-'24)

Earth Science **Grade 9-12** **1 credit**

Concepts emphasized in the course include the structure of the Earth, the dynamic nature of its crust, formation of rocks and minerals, geologic history, weather and astronomy. Students will be required to analyze and interpret data to help explain observations. Students must successfully complete a minimum of 1200 minutes of laboratory work, complete associated written reports, and take a laboratory performance test as part of their Regents exam.

Living Environment **Grade 9-12** **1 credit**

The Living Environment (LE)/Biology centers around seven areas: cells and biochemistry, maintenance in animals, maintenance in plants, reproduction and development, transmission of traits from generation to generation (genetics), evolution and diversity, and plants and animals in their environment (ecology).

Enrichment will be accomplished by intensive study in areas of biochemistry, human physiology, human reproduction, modern developments in genetics, and modern ideas in evolution and ecology. Students must successfully complete a minimum of 1200 minutes of laboratory work and complete associated written reports. A Regents examination will be administered at the end of this course.

Living Environment Honors **Grade 9** **1 credit**
The topics covered in this course will reflect the NYS Living Environment curriculum. Additionally, the course is faster paced and more in-depth in the study of science and experimental design.

Chemistry **Grades 10-12** **1 credit**
Guidelines: Living Environment
Chemistry is designed for students who anticipate attending a two or four-year college. Ten major areas will be presented: matter and energy, atomic structure, bonding, the periodic table, mathematics of Chemistry, kinetics and equilibrium, acid-base theories, redox and electrochemistry, organic chemistry, and applications of chemical principles. At least thirty written laboratory exercises will be submitted in acceptable form. A Regents exam will be given in June.

Chemistry Honors **Grades 10-12** **1 credit**
*Guidelines: Earth Science and Living Environment and concurrent enrollment in Algebra 2***.**
Ten major areas will be presented: matter and energy, atomic structure, bonding, the periodic table, mathematics of Chemistry, kinetics and equilibrium, acid-base theories, redox and electrochemistry, organic chemistry, and application of chemical principles. At least 1200 minutes of laboratory work and associated written reports must be completed. The Chemistry Regent exams will be given in June.

Advanced Placement Biology **Grades 11-12** **1 credit**
Guidelines: Living Environment and Chemistry
Advanced Placement Biology is designed to challenge the abilities and enrich the experiences of strong science students. Emphasis will be on major areas such as molecular and cellular biology, structure and functions of organisms, energy transformation (photosynthesis and respiration), diversity among living things (classification), reproduction and development, and an extensive treatment of genetics and heredity (probability). Since Chemistry concepts will be incorporated into this course, successful completion of Regents Chemistry is required before students take this course. Laboratory experiences stressing individual and group projects will require written lab reports. Students may take the AP exam in May. The cost of the exam is approximately $94.00. Preference is given to seniors in the course. ***This class has also been approved through CGCC for a four credit college biology science lab course. You must enroll and pay Columbia-Greene Community College special tuition rate.***

Anatomy and Physiology **Grades 11-12** **1/2 credit (S)**
This full year elective class is open to all students who have completed and passed Regents Living Environment. This class will explore topics of human body organization, human body support/movement, human body regulation, human body maintenance and human reproduction. **Students who are taking AP Bio should not consider this course. This course will be offered on site in the DL Lab at C-A High School and will be shared with schools across the Capital Region.**

Marine Biology **Grades 11-12** **½ Credit (F)**
Guidelines: Completion of 2 years of high school science.

Over 70 % of the earth is covered with water. Aquatic systems serve a crucial purpose in the local and global environment. This course will dive into properties of the ocean, patterns in ocean circulation, weather systems and geography of the ocean floor. Study the unique plants and animals that live in and drive ocean ecology, on coral reefs, along shorelines, in the deep ocean, and in freshwater systems all over the world. Then explore how humans are deeply interconnected to ocean systems and the methods used by marine biologists to study, protect and manage marine resources.

Atmospheric Science **Grades 10-12** **½ credit (F)**

This course is designed as an elective for students who are seeking to enhance their understanding of weather and climate phenomenon. We will investigate the development of various types of storms in the context of atmospheric changes (temperature, moisture, wind, and air pressure), the methods and instruments used to forecast these storms, and the impact of these storms on society. In addition, we will explore factors affecting local climates. Emphasis will be placed on observing and analyzing daily weather patterns and on discussing weather safety.

Astronomy **Grades 10-12** **½ credit (S)**

This course is designed as an elective for students who are seeking to enhance their perspective of Earth's place in space. We will describe objects within our own solar system (i.e. the Moon, Mars, and meteorites) as well as objects beyond our solar system (i.e. stars, galaxies, and exoplanets). Past and present NASA missions will be discussed as they apply to our understanding of the formation of the universe. Students will be required to attend at least one night-sky observing event using telescopes.

Environmental Science College **Grades 11-12** **1 credit**

Guidelines: Living Environment and Chemistry (May be taken concurrently) (Seniors are given preference to take this course)

This course will integrate field studies, technology, and public speaking throughout the year. Students will be required to apply the scientific method regularly and collect data from various sites (during and after school). Students will investigate various issues regarding the Hudson River and network with students at other schools via the Internet. Students will present their findings to classmates and the community as often as possible, using the best available technology. Emphasis will be placed on the biological and chemical aspects of the Hudson River; therefore, successful completion of a Regents credit in Biology is required, and students must also be enrolled in Chemistry if they have not completed the course already. ***This class has also been approved through CGCC for a 4 credit college science lab course. You must enroll and pay Columbia-Greene Community College special tuition rate.***

Introduction to Forensic Science **Grades 10-12** **½ credit (F)**

Guidelines: Completion of 2 years of high school science

Explore the world of investigating crime scenes and looking for evidence. This course will introduce students to the field of forensic science. They will learn what forensic science is and the role it plays in criminal investigations and litigations. Students will study: Careers in Forensics, Observation skills, eyewitness testimony, facial recognition, Crime scene Investigation, Evidence collection and chain custody, Case study analysis , The Innocence Project, Fingerprints

Analysis Specialization in Forensic Science **Grades 10-12** **½ credit (S)**

Guidelines: Completion of 2 years of high school science, Intro to Forensic Science, preferred

This course will build upon the information obtained from the introductory course. The focus will be on

different specialties in forensic science. Students will learn about careers in forensic science and different experts in those specialities. Students will study: Blood and Blood Spatter Analysis, DNA , Drugs and Toxicology, Trace Evidence: Fibers, Pollen, Spore, Entomology, Handwriting Analysis, and Death.

Physics **Grades 11 and 12** **1 credit**

Guidelines: 3 Regents science classes & 3 Regents math classes.

The Physical Setting: Physics curriculum includes the following topics: mechanics, energy, electricity, and magnetism, waves, and modern physics. The curriculum will provide students with a broad background in the content and methods of physics. Based on Standards 1, 2, 6, and 7 of the New York State Standards for Math, Science, and Technology the Physical Setting: Physics core curriculum is a student-centered, problem solving approach to physics. Students develop process skills that will provide the background and curiosity to investigate important issues in the world around them. At least 1200 minutes of laboratory work and associated written reports must be completed. A New York State Regents Exam will be administered.

Advanced Physics College **Grades 11 and 12** **1 credit**

Guidelines: 3 Regents science classes & 3 Regents math classes. Successful completion of Regents Physics is also appropriate.

This course is designed for college-bound students who want to major in a science field. It is an algebra-based theory and laboratory course covering the physics of translational and rotational mechanics (kinematics, forces, energy, momentum and rotations). The course will also cover the physics of thermodynamics, wave motion, electricity, magnetism, and modern physics. The summative assessment for the course is the NYS Regents Exam, concerning topics from Advanced Physics, College and Regents Physics. ***This course offers the opportunity to earn four Columbia Greene Community College Credits***.

SOCIAL STUDIES

Global History and Geography 9 **Grade 9** **1 credit**

Global History and Geography is a course designed to involve students in the study of world history. Beginning with prehistory, the period of time before man invented writing systems; students will explore topics ranging from the Egyptian Pyramids to the Mayan temples; the Chinese dynastic system to European feudalism; the African trading kingdoms to the Maurya and Gupta empires of India. The year's journey through history will end just prior to the tumultuous period of the Age of Revolutions (18th century).

Global History and Geography 9 Honors **Grade 9** **1 credit**

Global History and Geography is a course designed to involve students in an in depth study of world history. Beginning with prehistory, the period of time before man invented writing systems, students will explore topics ranging from the Egyptian Pyramids to the Mayan temples; the Chinese dynastic system to European feudalism; the African trading kingdoms to the Maurya and Gupta empires of India. The year's journey through history will end just prior to the tumultuous period of the Age of Revolutions (18th century).

Global History and Geography 10R **Grade 10** **1 credit**

Global History and Geography 10 is a continuation of the curriculum started in Global History and

Geography 9. Global History and Geography 10 covers the period of history from 1750, "The Age of Revolutions" through the present day. The course uses a chronological approach to the study of human developmental history.

Advanced Placement World History **Grades 10 and 12** **1 credit**

Guidelines: Global History & Geography 9

In AP World History: Modern, students investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation.

U.S. History and Government **Grade 11** **1 credit**

This course will include a chronological survey of United States history in general, but the emphasis will be on the United States as a developing and as a fully developed industrial nation. Constitutional and legal issues will be explored in depth, as will be the problems of a dynamic and industrial society in an increasingly complex and technology-oriented world. At the conclusion of this course, students will take the Regents examination U.S. History and Government.

Advanced Placement United States History **Grade 11** **1 credit**

This course will cover the Pre Colonial Era (1600's) to Present Time and Election Awareness. The emphasis will be on the United States as a developing and as a fully developed industrial nation. Constitutional and legal issues will be explored in depth, as will be the problems of a dynamic and industrial society in an increasingly complex and technology-oriented world. Lessons include the use of notes, videos, cartoons, maps, supplemental readings, the use of an iPad and document cameras. Skills learned and enhanced include interpreting, sorting and ordering and justifying positions. Students taking this class in lieu of US History will need to take the US History Regents in June. Students may take the AP exam in May. The cost of the AP exam is approximately $94.00. ***Credit via Columbia-Greene Community College is available to students via this course.***

Economics College **Grade 12** **½ credit (F&S)**

This state mandated Economics course is designed to emphasize economics and economic-decision-making. It will include basic economic concepts that will serve to help students understand how to function effectively and intelligently as citizens and participants of the economy of the United States. The course will highlight a rational decision-making process which can be applied to all economic decisions. A final exam and / or a final project is given at the conclusion of the course. ***Credit via Columbia-Greene community College is available to students via this course.***

Participation in Government College **Grade 12** **½ credit (F&S)**

This state mandated Participation in American Government course emphasizes the interaction between citizens and government at all levels: local, state, and federal. Students will be encouraged to understand and participate in the democratic process through discussion, projects, and a community service effort. A

final exam and / or a final project is given at the conclusion of the course. ***Credit via Columbia-Greene community College is available to students via this course.***

Psychology College **Grades 11 and 12** **½ credit (F&S)**

This course is designed to explain and discuss a variety of topics that come under the "General Psychology" umbrella. It is an introduction to Psychology that will allow students to see a larger picture before confronting its separate parts in an upper level college curriculum. A direct correlation to the many psychological phenomena will be demonstrated wherever possible. Appropriate examples and "metaphors" will be applied to the students' life and experiences. Therefore, class will be very much discussion oriented and "hands on". An open mind will be a key factor in Psychology therefore as various opinions are displayed they should be respected. ***Credit via Columbia-Greene community College is available to students via this course.***

Adolescent Psychology **Grades 9-12** **½ credit (F&S)**

This 20-week class focuses on psychosocial issues of adolescence in America. Adolescent development in other cultures will be explored as well. Topics include psychological theories, search for identity, brain development and intellectual function, gender roles, moral development, relationships, influence of media, goal-setting, career paths, and stress management.

Criminal Justice **Grades 10 - 12** **1 credit**

This Criminal Justice course will illustrate topics as they apply to the areas of law enforcement. Both Criminal and Civil law will be analyzed on the State and Federal Levels of government. A review of court systems, court procedures, court cases, and criminal violations will also be demonstrated. Please consider all of the following parameters before enrolling in this course: Please be aware that this class may contain mature themes. Mature content may be addressed in literature, video and / or discussion. With this, class will be very much discussion oriented and "hands on". As a result, students should anticipate getting involved in the course through participation and action. This is a course recommended for students who have a strong interest in the criminal justice field.

Local History **Grades 10-12** **½ credit (S)**

Guidelines: Successful completion of Global 9

This course will cover the local history of our area, including an in depth study of the indigineous people who lived in Coxsackie, Athens, and surrounding areas. It will also give students the opportunity to immerse themselves in primary and secondary sources and hone their writing skills. Students will be involved in a project based learning approach to explore the origins, culture, and history of earlier inhabitants of our region. These projects will give students the opportunity to work with state and local historians and archeologists throughout the research process. Students will also have access to historical archives and artifacts to provide in depth exploration. Projects will have real world applications including; enhancing the C-A History Wall, school newspaper, and website.

STEM/TECHNOLOGY

Introduction to Engineering 1 College **Grades 11-12** **½ credit (F)**

Guidelines: Algebra 1 & 2 preferred

Students dig deep into the engineering design process, 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 3-D modeling software, and use an engineering notebook to document their work. ***Students have the opportunity to receive 3 college credits via SUNY Polytechnic if they pass the final exam and pay the appropriate fee. This course can be used to partially meet the Art/Music graduation requirement.***

Introduction to Engineering 2 College **Grades 11-12** **½ credit (S)**

Guidelines: Algebra 1 & 2 preferred

Do you like math and physics? Are you considering being an engineer? Intro to Engineering 2 teaches a variety of topics specific to the many engineering disciplines and is designed for students preparing to enter an engineering track in college. Do the following topics sound interesting? Mechanisms, electricity, alternative energy, structural analysis, manufacturing processing, material properties, machine control, fluid dynamics, ballistic design, and projectile motion. This is the primary content of the course. ***Students have the opportunity to receive 3 college credits via SUNY Polytechnic if they pass the final exam and pay the appropriate fee..***

Introduction to Computer Science **Grade 9 - 12** **1 credit**

No prior programming experience is necessary, this course is designed to ease you into programming. Students will learn the fundamentals of computer programming and app development through the use of drag and drop coding software. The primary work will be done in Scratch and MIT App Inventor. Other topics will include web programming if time permits. This class will prepare you to enter advanced computer science to receive college credit.

Advanced Computer Science College **Grades 10-12** **1 credit**

Guidelines: Intro to Computer Science

Advanced Computer Science focuses on further developing computational-thinking skills through the medium of Android™ App development for mobile platforms. The course utilizes industry-standard tools such as Android Studio, Java™ programming language, XML, and device emulators. Students will learn design and implementation of computer programs to solve problems involving skills that are fundamental to the study of computer science. This includes the development and analysis of algorithms and fundamental data structures, and the use of logic and formal methods. ***Students have the opportunity to receive 3 college credits via CGCC if they pass the final exam and pay the appropriate fee.***

Motorsport Technology **Grades 9 - 12** **1 credit**

This course will introduce students to the world of motorsports and its subset category of powersports. Motorsports are defined as competitions, especially races, involving motor vehicles, automobiles, motorboats, or motorcycles. Topics covered in this course will be 2 and 4 stroke engine theory, electrical systems, fuel systems, brake systems, and cooling systems. Students will participate in hands-on projects including small engine repair, mini bikes, aluminum boat repair, motorcycles, atvs, and or snowmobiles.

Web Design & Programming **Grades 9-12** **½ credit (F)**

Students will learn how computers and the internet work, and how to build modern, interactive websites from scratch and host them on a web server(live on the internet). Primary technologies learned are HTML, CSS, Javascript, Github, Chrome, Mozilla, and Linux.

Advanced Web Design & Programming **Grades 9-12** **½ credit (S)**

Guidelines: Web Design & Programming
Students will learn how computers and the internet work, and how to build modern, interactive websites from scratch and host them on a web server(live on the internet). Primary technologies learned are HTML, CSS, Javascript, Github, Chrome, Mozilla, and Linux.

Woodworking 1 Grades 10-12 ½ credit (F)
Guidelines: Design and Drawing for Production
This course will provide students an opportunity to practice mechanical and problem-solving skills. Students will learn how to craft things from wood and work as a team to complete projects. Students will use powered and hand tools to make wooden/metal/plastic items like furniture, cutting boards, prototypes, ramps, benches, shelves, picture frames, etc.

Woodworking 2 Grades 10-12 ½ credit (S)
Guidelines: Design and Drawing for Production, Woodworking 1
Building off of skills learned in Woodworking 1, this course will provide students an opportunity to improve their skills using powered and hand tools.

Theater Construction Grades 10-12 1 Credit
Students will watch 3-4 productions and identify the primary sets and props. They will create storyboards for the primary setups. From these storyboards they will design the sets and props by drawing and creating paper/cardboard models for scale. We will then create scale engineering drawings for each set and prop for future reference. Once the current year's production is decided on; we will develop the sets and props and build them. After the production we will break the construction down, salvage the material and store it. During down and off time we will maintain and repair the stage and its components(rigging, storage areas). Students can explore other related topics when time permits (costume design, painting…).

CA Technology Assistant Flex Grades 9-12 ½ credit
This course will require students to use critical and analytical thinking skills to solve authentic technology-related problems related to a variety of applications, hardware, and software as part of the C-A Student Help program. Students will gain valuable interpersonal skills as they interact in a customer service setting learning responsible use, ethics, and safety when using electronic media. Additional projects are designed so C-A technology assistants use technology for research, critical thinking, problem solving, decision making, collaboration, creativity, and innovation. Students may have the opportunity to participate in both virtual and physical field trips to technology vendors and manufacturers. Students will be required to sign a confidentiality agreement to participate.

Collaborative Design with Minecraft Grades 9-12 ½ credit (F)
Work in teams to complete academic projects using the Minecraft world. Explore, build, complete quests while learning and practicing your academic knowledge. Improve your creative thinking, problem solving, teamwork, and collaboration skills. Academic topics that will be covered include: Math, Language Arts, Science, History & Culture, Computer Science, and Art & Design. ***Please note this is not a class just to play Minecraft, you will need to complete specific project requirements. This course will be offered on site in the Distance Learning Lab at C-A High School and shared with other schools throughout the Capital Region. ('23-'24)**

CTE PATHWAY: Advanced Manufacturing

The Career and Technical Education: Advanced Manufacturing pathway offers students the opportunity to gain technical knowledge as well as hands-on skills in the content areas of manufacturing technology, manual machining, CNC machining, CAD (Computer Aided Design), welding, woodworking, power and energy. Along with their classroom experiences; students will also have several opportunities to step out of the classroom to visit local manufacturing companies as well as educational institutions. Students who follow the sequence of courses listed below will be prepared to further their education at a postsecondary institution to pursue a career as a Machinist, CNC Machinist, Engineering Technician, or a Fabricator. Students must complete DDP, Manufacturing Processes, Power and Energy, and CAM 1 & 2 and receive a passing score on a technical assessment in order to utilize this CTE Pathway as an alternative pathway for graduation.

Design and Drawing for Production (DDP) **Grades 9 - 12** **1 credit**

This course is a study of the basic concepts and principles of engineering design, CAD (Computer Aided Design), and manufacturing techniques. The main topics of discussion include: applied mathematics, the design process, orthographic projection, isometric, section, and auxiliary views, assembly drawings, dimensioning, manufacturing history, and lean manufacturing. Students will gain academic knowledge and technical skills that are essential to their future education and career goals. Design and Drawing for Production can be used to meet the Art/Music graduation requirement.

Manufacturing Processes **Grades 10 - 12** **1 credit**

Guidelines: Design and Drawing for Production

This course introduces traditional processes used in manufacturing. It deals with methods of processing raw materials into manufactured components. Materials such as wood, plastics, metals, and composites are covered. The main topics of discussion include: the forming, separating, and combining of raw materials with an emphasis on woodworking techniques, plastic and composite molding, welding processes, forging, and manual metal machining. Students will gain academic knowledge, and technical skills that are essential to their future education, and career goals. **This course can be used to meet one math credit for graduation. Students in this class will earn a Safety Certification and a Manufacturing Processes Certification.**

Power and Energy **Grades 10 - 12** **½ credit (F)**

Guidelines: Design and Drawing for Production

Every technological endeavor makes use of one or more energy forms. The Power and Energy Technology course, designed as a half-credit course, is intended to acquaint students with the sources and forms of energy available now and what may be available in the future. The main topics of discussion include: energy sources, energy forms, power measurement and theory, electrical theory, basic circuits, renewable energy, and fluid power. Students will gain academic knowledge, and technical skills that are essential to their future education, and career goals.

Computer Aided Manufacturing (CAM) 1 **Grades 10 - 12** **½ credit (F)**

Guidelines: Design and Drawing for Production

This is the first section of an advanced processes course dealing with the fundamental theory and application of CAM (computer-aided manufacturing) technology. Programming methods include

conversational, and G-M Code. Students will work with CAD and CAM software to control CNC (Computer Numerical Control) Machining equipment.

Computer Aided Manufacturing (CAM) 2 **Grades 10 - 12** **½ credit (S)**

Guidelines: Design and Drawing for Production, CAM I

This is the second section of an advanced processes course dealing with the fundamental theory and application of CAM (computer-aided manufacturing) technology. The main topics of discussion include: tool selection, part zero, tool offsets, program editing, troubleshooting, and fixturing are also stressed. Rapid prototyping, Computer Integrated Manufacturing (CIM), Flexible Manufacturing Systems (FMS), robotics, and CAD/CAM systems are also discussed. This course will also feature an industry visit and or internship.

MEDIA / VISUAL ARTS

Studio in Art **Grades 9-12** **1 credit**

Studio Art is an introductory course that satisfies the arts graduation requirement for those opting for Visual art, and is the first Guidelines for all studio art based courses. Work is done with a great variety of materials in two and three dimensions: drawing, painting, ceramics, etc. Processes, techniques, and fundamentals of design will be learned largely through a student's involvement in the execution of various projects.

Advanced Studio in Art **Grades 9-12** **1 credit**

Guidelines: Studio Art

Advanced Studio in Art is a survey course designed to build upon the skills that students' have developed in the Guidelines Studio in Art course. In this class, students will begin to build a working portfolio that exhibits an understanding of advanced methods and processes in the areas of drawing, painting, ceramics, and foundations in graphic design. Students will explore a variety of media in two and three dimensions in order to strengthen their understanding of the elements and principles of art. Students will be introduced to a wide range of artists, art styles, and art historical periods.

Drawing and Painting **Grades 9-12** **1 credit**

Guidelines: Studio Art

The Drawing and Painting class concentrates on developing skills which involve coordination between hand, eye, and brain. The students learn and apply observation skills (drawing realistically as a means of making accurate visual judgments and choices. The student will also explore a wide range of drawing materials while utilizing the art elements and design principles to express their ideas, visions, and emotions.

Advanced Drawing and Painting College **Grades 10-12** **1 credit**

Guidelines: Drawing and Painting

Advanced Art is designed for the student who is seriously interested in the practice of art. A breadth of artistic experiences will be offered. The course follows Advanced Placement Guidelines and requires a concern for quality work and concentration on a particular mode of working, thinking, and stating. It is basically the first year prep for the intensive 24 piece AP portfolio. **This course offers students the opportunity to earn college credit for Basic Drawing via CGCC. College credit may not be awarded to 10th graders enrolled in this course--CGCC review required.**

Computer Graphic Arts 3D **Grades 9-12** **1 credit**

Guidelines: Studio Art preferred

Computer Graphic Arts 3D is a course designed to teach further ways to create art using the computer as a tool. Students will create projects that utilize various aspects of the open source 3d program called Blender. Blender is an extremely capable application that has been used to create open source movies such as Sintel, Big buck bunny and Tears of steel (these can be viewed on YouTube).

Ceramics College **Grades 10-12** **½ credit (F)**

Guidelines: Studio Art

Over the period of one semester, students will work with clay to create projects that utilize various construction methods and techniques such as; Slab, coil, carving, plaster mold making, glazing and extrusion. Students will also become familiar with loading and setting a kiln for bisque and glaze ware. Students should be comfortable with their drawing ability because they will be asked to draw out ideas for each proposed project. **This course offers the opportcredity for students to earn college credit via CGCC. College credit may not be awarded to 10th graders enrolled in this course--CGCC review required.**

Sculpture **Grades 9-12** **1 credit**

Guidelines: Studio Art

For two semesters students will explore (and learn to safely use) a wide range of materials, tools and processes such as; Building bluestone structures, cutting, forming, welding steel, mold making techniques, Aluminum casting, wood carving and turning, glass stretching, slumping, and cutting. Special emphasis will be placed on Utilizing 2-D drawing, scale models/Mock-ups, and 3-D computer modeling, to aid in the development of sculptural designs. Students should be comfortable with their drawing ability because they will be asked to draw out ideas for each proposed project.

Photography College **Grades 11-12** **1 credit**

Guidelines: Studio Art

Students will explore a wide array of photographic techniques in both Digital and film formats such as; Camera technique, Composition, Studio lighting, Darkroom and Photoshop techniques, as well as matting and framing finished work. Special emphasis will be placed upon obtaining maximum creative control by utilizing the manual settings available in SLR cameras. **This course offers students the opportunity to earn college credit via CGCC.**

Stringed Instrument Design and Construction **Grades 9-12** **½ credit (S)**

Guidelines: Studio in Art

This one semester class is intended to familiarize students to the various materials and processes involved in the design and construction of stringed instruments. With the exception of frets, tuners and strings, all components will be made from scratch. Solid wood bodies and necks as well as truss rods and tail pieces will be designed and constructed in various art and technology classrooms. Students will leave the class with at least one or more different custom instrument(s) depending on the pace and ability of the student.

Advanced Placement 2-D Art and Design **Grades 11-12** **1 credit**

Guidelines: Advanced Drawing and Painting strongly recommended.

The cost of the AP Program is approximately $94.00. Students who wish to earn AP credit must have **an 85% average in Art and recommendation from the teacher.** This course will more than satisfy the rigorous demands for a college entrance portfolio, as well as earn the student potential college credit. A digital 24 piece portfolio is the AP final for this class. If you are planning to take this class, it is highly

recommended that you download the program to get familiar with the interface (it can be run with minimal CPU and graphics and has a relatively small memory footprint). The program can be downloaded for Windows and Mac for free at this link: http://www.blender.org/download/ . There are also many tutorials on YouTube etc. for just about anything relating to Blender.

Introduction to Game Design **Grades 9-12** **½ credit (F)**

Many people enjoy playing games, be they board games, video games, tabletop role-play like *Dungeons & Dragons,* live-action role-play ("larp"), escape rooms, and even AR/XR/VR…but what does it actually take to design a game? In this introductory course, students will investigate what the key elements are to creating a dynamic and interactive experience, analyze exemplars, and work through a deliberate design process to develop new games. Students will be expected to maintain a design journal/vlog, be able to demonstrate patience with the design process, and be able to contribute to a culture of constructive feedback.

Advanced Game Design **Grades 9-12** **½ credit (S)**

This course is designed to take the skill sets from Introduction to Game Design to the next level. The primary goal will be to begin to build a working portfolio that exhibits a functional prototype of a game design concept, documents playtesting methods, and explains and justifies changes made to the original design along the way. Games designed as part of this course may be analog or digital.