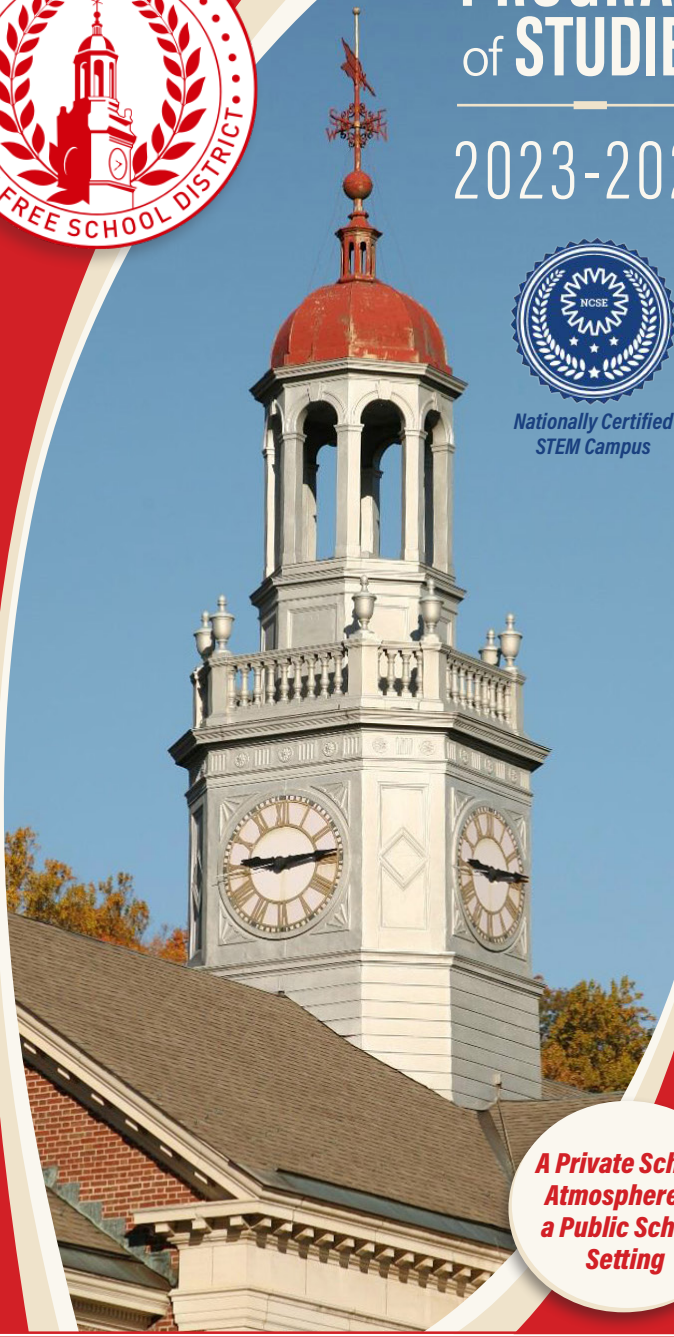
TUXEDO UNION FREE SCHOOL DISTRICT

# PROGRAM of STUDIES

## 2023-2024

NCSE

*Nationally Certified STEM Campus*



***A Private School Atmosphere in a Public School Setting***

*Tuxedo Union Free School District, Tuxedo, New York*

# Tuxedo's George F. Baker High School: WHY? What makes us so special?

## About our school:

George F. Baker High School serves students in grades 6-12 from the town of Tuxedo as well as tuition students from local area school districts. The administration and faculty take great pride in the friendly and supportive atmosphere of the school and the diverse programs that meet the various needs of its student body while capitalizing on our small size to provide an individualized approach in a comprehensive school setting.

## Our mission statement:

To engage students in the pursuit of knowledge for academic success, productive citizenship, and the development of personal potential in our diverse and fast-changing world.

## What features make our high school truly unique?

We like to think of our school as having the best features of a private academy or a prep school— but in a public school. Thanks to our small size, we think of our faculty, staff, and students as a "school family."

## What are some of the features which make us stand out?

- diverse academic programs to meet the needs of students at all levels
- small class sizes, made possible by our small size
- accelerated and honors classes, as well as nine Advanced Placement and college-level courses
- parallel special education classes for students with special needs
- opportunities for individualized extra help for students who require it
- a strong STEM (Science, Technology, Engineering and Math) program
- recognition by the National Certification for STEM excellence
- a commitment towards training teachers in the most recent research and best practices in STEM
- emphasis on collaborative, "active" project-based learning promoting higher-level thinking
- Google Workspace for Education Initiatives within all grades

- Chromebooks for all students to take notes, share work electronically and collaborate with classmates
- a caring staff that fosters learning at all levels, with the mantra—"failure is not an option"
- an "advisory" program that replaces the traditional "homeroom" with adult contact every single day

## What opportunities exist outside the classroom?

- Our school prides itself on its vast array of opportunities not only inside the classroom, but outside as well.
- There is a variety of extracurricular, co-curricular, STEM-based programs, and non-academic opportunities.
- Pep rallies, concerts, stage productions, and many community service projects foster a family feeling.
- Students are encouraged to broaden and enhance their high school careers by participating in these activities.
- More than 80% are involved in at least one activity— with many participating in several clubs or teams. (See page 2 for descriptions)

## Want to learn more about high school?

This description gives you an overview of our school—which we think is special and of which we are so proud.

Want to learn more? Then come see for yourself!

Individual, personal tours can be arranged at your convenience;
call (845) 351-4786 ext. 2101 to arrange one.

***Thank you for thinking of us. We'd love to have you join our family at GFBHS!***


TUXEDO
UNION FREE SCHOOL DISTRICT

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# LETTER FROM THE ADMINISTRATION

Dear Student:

This Program of Studies handbook is your guide to selecting courses at Tuxedo High School. Your counselor and teachers will help you to plan a program that is challenging and will help you attain the career goals you set for yourself.

Read this booklet carefully. The information will help you understand enrollment at Tuxedo and the state requirements for high school graduation. If needed, call and schedule a tour. Ask to meet with a school counselor to make your selections.

Good luck as you go through this process. If you have any questions, please do not hesitate to ask

Sincerely,

The Administration

# STUDENT LIFE

Our school has a variety of extracurricular, co-curricular, and non-academic activities. Pep rallies, student produced concerts and productions, and numerous community service projects that engage collaboration among our students and staff. Students are encouraged to broaden their education and enrich their school life with involvement in these activities. A majority of the student body is involved in at least one extracurricular activity and many students participate in more than one club or team.

## George F. Baker Middle School/High School Student Activities 2022 - 2023

### Art Club, grades 7-12

- This club is for those who have a great deal of interest in the field of art. The Art club will be a supportive outlet for student members to express themselves and form relationships with one another through the Arts. A number of school projects and individual work come from this organization.

### Drama Club- Spring Musical

- The Spring Musical is a wonderful opportunity to show your talents on and off the stage: Acting, Singing, Dancing, Instrumental, Design, Construction, Management, and Crew positions are open to all students in all grades.

### Ethics Club

- (Grades 10-12) Ethics is the place to come to discuss current topics that relate to our society. Our club culminates in February with a trip to participate in the Regional Ethics Bowl at Manhattanville College. Ethics club asks students to reflect on current topics rather than debate. Students can agree with their opponents but must be able to point out flaws noticed or add new points to their argument. We spend our time analyzing 15 case studies that will be discussed at the Regional Ethics Bowl. We discuss these cases in our club in preparation for the competition. Ethics Club emphasizes the fundamentals of listening, analyzing, and considering another's opinion in a respectful manner to achieve mutual respect.

### High School Student Council

- Student Council is composed of five student members, and separate governments that represent each class. Students are provided leadership opportunities and input within the school community.

### Interact Club

- This is a service organization that is school and community-minded. There are many exciting projects in which students may become involved

### Middle School Student Council

- The Middle School Student council works to create student centered events, spirit weeks, and other events to follow social distance protocols. As always, this club will take the students' ideas and try to make them possible. Our council members are already thinking of great new ideas that we are looking forward to trying.

### National Honor Society

- NHS is a scholastic organization. Students must meet qualifications including: academic, leadership, service and character criteria. Activities include providing tutorial services, fundraising for local charities, and assisting with school-wide events.

### Jazz Ensemble

- The Jazz Ensemble learns and performs music in the jazz and big band idiom. Music selected ranges from the early swing era to contemporary jazz, with a focus on improvisation. Instrumentation is limited to standard jazz and big band ensembles. Students must audition to participate. The Jazz Ensemble performs concerts and at selected music festivals.

### Junior National Honor Society

- NJHS is a scholastic organization. The society focuses on five standards; scholarship, leadership, citizenship, character, and service. Students are eligible to apply for membership during 7th grade. Students invited to apply must have earned a High Honor Roll ranking for all quarters (GPA 89.5+), and submit a completed application by the deadline. Students must maintain good standing in all five standard areas of the organization in order to maintain their membership.

### Production & Tech Crew

- The purpose of this club is to expose students to the electronic media through hands-on experience with audio-visual equipment, filming.

### Robotics & Engineering Club

- If Design, Problem Solving and building things are your specialty, come join Robotics and Engineering club. Students will be looking at robotics activities and using skills to design to build numerous kits as well as explore various problem-solving activities that will be available for them to practice with at their own pace. (grades 6-12)

**Running Club**

- An active, healthy club for students who like to run, jog, walk, and improve their physical fitness. This club may also include health education components as we teach students the importance of injury prevention through warming up, stretching, cooling down, staying hydrated, healthy food choices, and healthy habits.

**Senior Class**

- Those seniors who are interested in working on class projects should attend meetings. Activities include organizing fundraisers, supporting the senior class, and planning Senior activities.

**Yearbook Club**

- Students with interests in writing, art, photography, business, and computer graphics are welcome to join the Yearbook staff. All talents are welcome.

# FINGERTIP FACTS

## Acceleration

Accelerated courses are high school courses that are taken during the middle school years for high school credit. These courses will be listed on the student's transcript.

## ACT

The ACT consists of four multiple choice tests:

- English
- Mathematics
- Science
- Reading with an optional Writing test (30 minute essay).

Many colleges accept this in lieu of the SAT. This total package of achievement tests requires approximately three and half hours. Juniors usually take it in April or June and seniors in October or December.

## Advanced Placement (AP)

AP courses are currently offered in:

- English Language
- English Literature
- Calculus
- Statistics
- Biology
- European History
- American History
- Government
- Psychology
- Chemistry

These are college level courses and students should expect a greater level of challenge and rigor in reading, written assignments, pace of course, and of course grading. Teachers, quite naturally, will have a higher expectation level for students enrolled in their AP classes.

**Admission:** Admission to these classes is by teacher recommendation and grades from the prior year.

**Withdrawal:** Since these are college level classes, restrictions on student withdrawals will be strictly enforced after the legitimate drop/add period at the beginning of the school year.

**College Credit:** Most colleges and universities award course credit based on successful completion of the course and grade on the AP exam (usually 3 for state universities and 4 or 5 for private colleges and universities).

★ ***Please Note:*** There is a fee for taking the exam ($95 for the 20-21 school year) which must be paid sometime in the fall.The Administration

## Auditing a Course

Occasionally you may want to learn more about a subject area without officially enrolling in the course. It is possible for you to audit the course if space is available in the class and the teacher gives permission for the audit. Requests to audit must be made in the Guidance Office prior to the start of the course.

While an audited course will carry no grade or credit, all course requirements and regular attendance standards must be met. If you start an audit, you may not request a changeover to take the course for credit.

## Class Standing

Students planning on further schooling after high school should be concerned with class standing. Students receive a class rank at the end of the junior year. Grade Point Averages are placed in numerical order to determine the class rank.

Students must attend George F. Baker Tuxedo High School a minimum of two full semesters prior to the senior year to be ranked. Transfer students with less than two semesters are co-ranked.

A final rank will be computed at the end of the first semester of the senior year (seven-semester ranking). The student with the highest average is the valedictorian. The student with the second highest is the salutatorian.

## College Admissions Requirements

Requirements for college admission usually go far beyond the minimum requirements for high school graduation. In New York State, high school graduation requirements are quite extensive, particularly in English Language Arts and Social Studies, where four years are required. In Mathematics, Science, and Languages Other Than English, there are less stringent graduation requirements.

***Therefore, students must be mindful of pursuing the most rigorous course of study wherever appropriate and possible.***

When selecting your courses, keep in mind:

- Colleges, particularly the more prestigious schools, typically expect students to take four years of math, lab science, and at least three years of a language other than English.
- Students should try to choose electives from among those offered based on ability and area of interest, which would be more meaningful than a series of study halls which earn no credit.
- Highly selective Honors and AP Courses are open to qualified students with a proven academic track record as detailed under specific course descriptions.
- Remember, it is important to pursue the most challenging level of study available in each academic area for consideration by the better colleges and universities.
- Students with specific questions and concerns about these issues should speak directly to their counselor.

Students with specific questions and concerns about these issues should speak directly to their counselor.

## Course Changes

A careful and concentrated effort is made to schedule students properly. Therefore, schedule changes based on whims or without sufficient reason will not be permitted. Parental input is mandatory for any course changes.

**Time Limits:** No schedule changes will be made after the 3rd week of school. A withdrawal prior to these time limits will be designated on the record as a "W". This "W" designation will carry no credit nor will it affect class rank.

**⚠ A STUDENT WILL RECEIVE AN "F" FOR COURSES DROPPED AFTER 20 DAYS.**

★ ***Please Note:*** *This grade will affect Grade Point Average.*

**CTEC:** Students who are enrolled in a CTEC program have until the last day of the first week of school to make any changes in programs.

## Course Load

Students are required to carry a minimum credit load of four and one-half credits.

Students needing additional credits in order to either:

1. proceed with their classes

   or

2. meet graduation requirements. may be required to take additional credits annually.

## Credits

To graduate from George F. Baker High School students must have a minimum of 22 credits.

**Credits are earned as follows:**

- One credit is earned upon successful completion (passing grade) of a course.
- Partial credit is offered for semester courses.
- One credit is earned for attending classes 5 times each week for 36 weeks or 2 semesters.
- One half credit is earned for attending class 5 times each week for 18 weeks or 1 semester.

## Credits and Transcripts

The Guidance Department serves as the Registrar for the school. Students' permanent records are maintained and official transcripts are issued through the Guidance Office. Transcripts to colleges or future employers may be requested through the Guidance Assistant.

## Elective Courses

Electives are courses that are not required and that students choose to take. Electives may be in special areas or in any academic area, when the course exceeds the minimum requirement for graduation.

## Grading System

The high school uses a numerical grading system. The minimum passing grade is a 65. Please see the section below for information about grade weighting.

## Grade Weighting

Honors and Advanced Placement courses require class work that is significantly more rigorous than other courses offered in the high school. In recognition of this fact, grades in these courses are weighted to reward students who take on this challenge and do well in the course.

**Difficulty factors:** In order to recognize the complexity of the curriculum in our Honors and College/Advanced Placement courses, difficulty factors are employed in determining class rank and G.P.A:

- Honors courses are assigned a difficulty factor of 1.035.
- AP college level courses are assigned a difficulty factor of a 1.065.

These difficulty factors are used in determining students' G. P. A. and class rank. Raw score grades are reported on the report card and transcript.

## Guidance & Counseling

Your school counselor works with you for your four years of high school. Your counselor is available by appointment or anytime you may be in crisis during the school day and parents also are encouraged to contact the counselor whenever there is a need. Guidance at Tuxedo High School is a continuing process that emphasizes educational, career, and personal counseling. Using information such as standardized tests and grades, and coordinating the efforts of teachers, school specialists and parents, the guidance staff assists students to gain insight into themselves and recognize and develop their true potential.

The Guidance Program has the following goals:

- Help students adjust to the school environment and resolve academic, social and personal problems.
- Advise students on educational and extra-curricular programs most suited to their abilities, skills, and future career aspirations.
- Help student's select post-secondary employment or educational opportunities appropriate for their career goals.
- Help students develop skills in relationships with others.
- Provide parents and teachers with information relating to students' educational progress and career plans.

## Honor Roll

To qualify for Honor Roll or High Honor Roll:

- Honor Roll status can be achieved at the end of each marking period that the student earns between an 85 to an 89.99 grade point average.
- High Honor Roll status can be achieved at the end of each marking period where the student earns a grade point average of 90 or above.
- If the student has an incomplete in any subject, honor roll status cannot be achieved until the incomplete is made up.

**A GRADE OF 64 OR BELOW IN ANY SUBJECT AREA PREVENTS A STUDENT FROM BEING ON THE HONOR ROLL.**

## Honors Level Courses

Honors level courses require a more intensive and vigorous level of study than a Regents level course. Honors placement is expected to culminate in acceptance into AP level of study where appropriate.

The following are considered when deciding if an Honors level is appropriate for a student:

- a student's past performance in the content area
- the recommendation of the current subject teacher
- scores on standardized or teacher designed assessments.

## Independent Study

Students interested in completing an Independent Study project:

1. Should discuss this interest with a potential sponsoring teacher.
2. Once a plan is agreed upon, a written proposal signed by the student and his/her parents must be submitted to the teacher.
3. Upon receipt of the proposal, the sponsoring teacher and the student will prepare a course outline which must include:
    a. goals and objectives to be completed by stated deadlines
    b. the amount of credit to be awarded
    c. the procedure for arriving at a grade
4. A final decision is then determined by the principal.

★ ***Please Note:*** When possible, Independent Study projects should culminate in a "product or service" which can be shared with others upon completion.

## Library Media Services

The Library Media Center provides every student with the resources and services necessary to complete course assignments. A variety of print and electronic resources, including magazines and newspapers, are available for student use. Most materials may be checked out for use at home. The librarian instructs classes and individual students in the use of LMS resources on an ongoing basis. Students are encouraged to ask the librarian for help when needed. Students may come to the LMS to do research either with a class or with individual research passes issued by a classroom teacher. Students are also free to use the LMS during their lunch periods and they may come from study halls with a pass. NCAA Academic Eligibility/ NCAA.

## Academic Eligibility/ Graduation Guidelines

Students who plan to practice and play NCAA Division I or II athletics must meet the requirements of NCAA bylaw 14.2 commonly known as "Proposition 48". A complete listing of specific information is available at *www.ncaaclearinghouse.net*. It is the responsibility of the Parent/Guardian to familiarize themselves with the information, especially the core course requirements.

## Pass/Fail

Occasionally a student may choose a pass/fail option, prior to enrollment. When a student takes a course as Pass/Fail, the student:

- does all the class work
- takes the midterm, final, and all class examinations
- earns credit for the class

Each marking period, the student gets a grade of either P (100-65) if the student is passing or F (64-0) if the student is failing. The advantage for the student is that the grade is not factored into the student's GPA. This can only be done for elective classes and only with parent, teacher, principal, and counselor consent.

★ ***Please Note:*** *Once the decision is made to take the class pass/fail, that decision cannot be changed.*

## Promotion Policy

A freshman student will advance:

- to the sophomore class after achieving a minimum of 6 credits,
- to the junior class with 12 credits,
- and to the senior class with 17 credits.

**Summer School:** High school students who fail any courses during the school year are urged to make up those courses in summer school or promotion to the next grade will be jeopardized.

If a pupil has successfully completed a course in an accredited summer school program and presents evidence of the fact to the Principal, the Principal will then authorize the necessary changes to be made in the student's schedule.

★ ***Please Note:*** *Summer school information will be available in the Guidance Office each spring.*

## PSAT/NMSQT

The Preliminary Scholastic Aptitude Test/National Merit Scholastic Qualifying Test is a shortened version of the College Board Scholastic Aptitude Test. All juniors considering college should take it. It measures verbal and math abilities and is administered to all juniors in the fall.

## SAT

The Scholastic Aptitude Test is usually taken by juniors in May or June and by seniors in November or December. This three hour multiple choice and written test measures verbal, writing, and math abilities.

## SAT II

Individual subjects tests are given at the same time as the SAT. They measure students' achievement levels in specific subject areas such as Math, Science, English, etc.

★ ***Please Note:*** *For more information on the PSAT/NMSQT, SAT, or SAT II, visit the College Board website at http://www.collegeboard.org*

## Semester

A semester is one-half of a school year or 18 weeks of classes. The first semester begins in September and ends in late January. The second semester begins late in January and ends in June.

# NEW YORK STATE DIPLOMA REQUIREMENTS

## Credit Requirements

Apply to all diploma types: Local, Regents, Regents with Advanced Designation

| SUBJECT | MINIMUM NUMBER OF CREDITS |
|---|---|
| **English** | 4 |
| **Social Studies:**<br>Distributed as follows:<br>▪ U.S. History (1)<br>▪ Global History and Geography (2)<br>▪ Participation in Government<br>▪ Economics (1/2) | 4 |
| **Science:**<br>Distributed as follows:<br>▪ Life Science (1)<br>▪ Physical Science (2)<br>▪ Life Science or Physical Science | 3 |
| **Mathematics** | 3 |
| **Languages Other Than English** (LOTE) | *1 |
| **Visual Art, Music, Dance, and/or Theater** | 1 |
| **Physical Education** (participation each semester) | 2 |
| **Health** | 0.5 |
| **Electives** | 3.5 |
| TOTAL: | 22 |

**Students with a disability may be excused from the requirement for 1 unit of credit in LOTE if so indicated on the IEP but must still earn 22 units of credit to graduate.*

1.) **Pathways**

A student must either:

- successfully complete all the requirements for the CDOS Commencement Credential (http://www.nysed.gov/curriculum-instruction/cdos-pathway-regents-or-local-diploma); or
- pass an additional math Regents examination or Department approved alternative in a different course; or
- pass an additional science Regents examination or Department approved alterative in a different course; or
- pass an additional social studies Regents examination or Department approved alternative in a different course; or
- pass an additional English assessment in a different course selected from the Department approved alternative list; or
- successfully complete an approved CTE program, including the associated 3-part technical assessment; or
- pass a Department approved pathway assessment in the Arts; or
- pass a Department approved pathway assessment in a Language Other than English (LOTE).

Reference Multiple Pathways (http://www.nysed.gov/curriculum-instruction/multiple-pathways).
Reference Department Approved Alternative Examinations (http://www.p12.nysed.gov/assessment/hsgen/archive/list.pdf).

2.) **Appeals**

Appeals are subject to local district approval.
Reference Appeals, Safety Nets, and Superintendent Determination (http://www.nysed.gov/curriculum-instruction/appeals-safety-nets-and-superintendent-determination)

3.) **Special Endorsements**

**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 2 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 3 math Regents examinations and/or 3 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 the 3-part technical assessment.

Reference the Endorsements and Seals webpage (http://www.nysed.gov/curriculum-instruction/endorsements-and-seals) for additional information pertaining to awarding special endorsements to students with exam exemptions due to COVID-19.

4.) **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 5-unit sequence in the Arts or CTE in lieu of LOTE in order to meet the assessment requirements for the advanced diploma.

5.) **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. Reference Appeals, Safety Nets, and Superintendent Determination (http://www.nysed.gov/curriculum-instruction/appeals-safety-nets-and-superintendent-determination).

6.) **Exemptions due to the COVID-19 Public Health Emergency**

Students granted an exemption from any examination due to COVID-19 are not required to pass such specific examinations to meet the assessment requirements for any diploma type. Reference the following FAQs: June/August 2020, January 2021, and June/August 2021 for additional information.

## Exams Required for Regents Diplomas

| Regents Exam or passing score on a Department Approved Alternative | Regents Diploma for all Students | | Regents Diploma via Appeal for all students | |
|---|---|---|---|---|
| | # of Exams | Passing Score | # of Exams | Passing Score |
| **English Language Arts** (ELA) | 1 | 65 | 1 | 1 Regents exam with a score of 60-64 for which an appeal has been granted by the district and all remaining Regents exams with a score of 65 or above. |
| **Math** | 1 | 65 | 1 | |
| **Science** | 1 | 65 | 1 | |
| **Social Studies** | 1 | 65 | 1 | |
| **Pathway** (See note 1 below) | 1 or CDOS | 65 if Regents Exam | 1 or CDOS | |
| **Compensatory Safety Net** | Non Applicable | | Non Applicable | |

## Exams Required for Local Diplomas

| Regents Exam or Passing Score on a Department Approved Alternative | | Local Diploma via Appeal for All Students | | Local Diploma for Students with a Disability | | Local Diploma via Appeal for English Language Learners |
|---|---|---|---|---|---|---|
| | # of Exams | Passing Score | # of Exams | | # of Exams | Passing Score |
| **English Language Arts** (ELA) | 1 | 1 Regents exam with a score of 60-64 for which an appeal has been granted by the district and all remaining Regents exams with a score of 65 or above | 1 | 55*^ | 1 | Either the ELA Regents exam with a score of 55-59 for which an appeal has been granted by the district, and all remaining Regents exams with a score of 65 or above, OR 1 Regents exam with a score of 60-64 and the ELA Regents with a score of 55-59 for which appeals have been granted for both by the district, and the remaining Regents exams with a score of 65 or above + |
| **Math** | 1 | | 1 | 55*^ | 1 | |
| **Science** | 1 | | 1 | 55*^ | 1 | |
| **Social Studies** | 1 | | 1 | 55*^ | 1 | |
| **Pathway** (See note 1 below) | 1 or CDOS | | 1 or CDOS | 55*^ if Regents exam | 1 | |
| **Compensatory Safety Net** | Non Applicable | Non Applicable | Scores of 45-54 on any required Regents exam (except ELA and Mathematics) can be compensated by a score of 65 or above on another required Regents exam including ELA and Mathematics. | | Non Applicable | |

## Regents Diploma with Advanced Designation

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 2 units of credit in LOTE and passing a locally developed Checkpoint B LOTE examination, or
  - complete a 5 unit sequence in the Arts, or
  - complete a 5 unit sequence in CTE.

| PATHWAY | EXAMS |
|---|---|
| **Traditional Combination** | ELA, Global History and Geography, US History and Government, 3 mathematics, 2 science (1 life science, 1 physical science) = 8 assessments. |
| **Pathway Combination (other than STEM)** | ELA, 1 social studies, 3 math, 2 science (1 life science, 1 physical science), 1 Pathway (other than science or math) = 7 (+Pathway) or 8 assessments. |
| **STEM (Mathematics) Pathway Combination** | ELA, 1 social studies, 4 math‡, 2 science (1 life science, 1 physical science) = 8 assessments. |
| **STEM (Science) Pathway Combination** | ELA, 1 social studies, 3 math, 3 science (at least 1 life science, at least 1 physical science) = 8 assessments. |

** A student with a disability may appeal scores between 52 and 54 on up to two Regents examinations in any discipline and graduate with the local diploma. Reference New York State Diploma/Credential Requirements: Local diploma for Students with Disabilities (http://www.nysed.gov/common/nysed/files/programs/curriculum-instruction/diploma-and-credentials-summary-requirements.pdf).*

*^In the event a student with a disability is unable to attain a passing score on any Regents examination, the student may be eligible for a Superintendent Determination of a local diploma. Reference Appeals, Safety Nets, and Superintendent Determination (http://www.nysed.gov/curriculum-instruction/appeals-safety-nets-and-superintendent-determination).*

*†English Language Learners seeking an appeal for a score of 55-59 on the ELA Regents Exam are only eligible if they entered the United States in grade 9 or after and were classified as an English Language Learner when they took the test the second time. Reference New York State Diploma/Credential Requirements: Local diploma for English Language Learners (http://www.nysed.gov/common/nysed/files/programs/ curriculuminstruction/diploma-and-credentials-summary-requirements.pdf).*

*‡The 4th mathematics examination can be selected from the list of Department Approved Alternative Examinations (http://www.p12.nysed.gov/assessment/hsgen/archive/list.pdf).*

# CURRENT MIDDLE SCHOOL CURRICULUM FOR THE 23/24 SCHOOL YEAR

## 6th Grade Curriculum

The 6th Grade Curriculum consists of the following courses:

- English Language Arts
- Social Studies
- Science
- Math
- Spanish A
- Visual Arts
- Physical Education
- Intro to STEM
- Digital Literacy
- General Music
- Music
  - Concert Orchestra
  - Concert Choir

## 7th and 8th Grade Curriculum

The 7th and 8th Grade Curriculum consists of the following courses:

### 7th Grade

- English Language Arts 7
- Social Studies 7
- Science 7
- Math 7 or Accelerated Math 8
- Spanish A
- Current Affairs
- Science Fiction
- General Music
- Visual Arts
- Physical Education
- Introduction to STEM
- Digital Literacy
- Music
  - Concert Orchestra
  - Concert Choir

### 8th Grade

- English Language Arts
- Science 8 or Living Environment (with Lab)
- Math 8 or Algebra
- Social Studies
- Spanish B
- Physical Education
- Exploring STEM
- Career Exploration
- Health 8
- Visual Arts
- Digital Literacy & Library (1x weekly)
- Music
  - Concert Orchestra
  - Concert Choir

***ALL of the following courses in the program of studies that are not listed above for the 23/24 school year are Board of Education approved and not currently running.***

# MIDDLE SCHOOL COURSE DESCRIPTIONS

## Algebra — 1 Credit

This year's course is required for the New York State Algebra Regents Exam. The pace is rigorous and the course is intended for students who have a strong understanding of middle school mathematical concepts and are reading to be challenged. Major topics include operations with integers, operating with algebraic expressions, solving linear and quadratic equations, solving systems of equations, graphing linear and quadratic equations, the geometry of polygons and circles and its integration with algebra and an introduction to probability and statistics. This is an accelerated course and will earn students 1 credit on their high school transcript.

## Career Explorations

Students will study the choices they have for education, careers, and the world of work. The instructor will stress self-knowledge, educational and occupational exploration, and career paths. Students will set goals and develop plans of action. Students will also work on self-esteem, improving communication, identifying leadership qualities, improving their ability to work with others, and setting goals for the future.

## Communications and Public Speaking

This course is intended for the professionally oriented student who requires specific training and competence in public address. It entails considerable hands-on exposure to business and professional speaking from a variety of perspectives. The course will also address analysis, interpretation, and oral reading of prose and verse to give students techniques and creative skills in oral interpretation. The course will provide individual attention and practice in the basic elements of voice and diction such as breath control, phonation, resonance, articulation, and pronunciation.

## Concert Orchestra

Orchestra is a performance-based class which includes violin, viola, cello and string bass students. We follow the National Association for Music Education's Course of String Study and Standards. Orchestra students perform music from the Renaissance, Baroque, Classical, Romantic and Contemporary periods, but we also include "fiddle" tunes and popular music. Other musical opportunities include: NYSSMA, All-County/ Area-All-State/All-State, community outreach performances and a yearly recital.

## Concert Choir

Concert Choir is the perfect environment in which to develop your singing voice. Members will be introduced to proper singing technique through breathing exercises and vocalizations. The music covered is standard chorale repertoire, as well as the Broadway, contemporary and gospel styles. Opportunities are available to hard working students to audition for selected performing groups that will travel and represent our school in various music performances and events.

★ ***Please Note:*** *Acceptance into the choral program is by audition only.*

## Current Affairs

Current Affairs is an elective designed to promote the usage of critical thinking skills in the study and analysis of current newsworthy events around the world. In the study of news from around the world the students will learn geography, culture, and history in order to gain a greater insight into the events.

## Digital Journalism

This course will allow students to coordinate the production of a school newspaper, yearbook, or literary magazine. Students will be introduced to digital media and the concepts of newsworthiness and press responsibility; develop students' skills in writing and editing stories, headlines, and captions; and teach students the principles of production design, layout, and printing. Photography and photojournalism skills may be included.

## Digital Literacy / ICT Applications & Library Information Skills

A course on computer basics, internet and computer security, hardware and software relating to the evolution and architecture of today's computer, and its impact on education, industry and individuals. Personal, social, industrial, and commercial applications of electronic devices and computer systems will be emphasized, including applications software, websites, telecommunications, and computer control.

## English Language Arts 6/7/8

This course will address reading, writing, and analysis skills. Students will be introduced to various forms of literature, including novels, short stories, biographies, and historical fiction. Students will read such works as The Giver, A Long Walk to Water, Lyddie, and The Life of Frederick Douglass. In addition to the study of literature, other areas of study include vocabulary, essay writing, creative writing, and journaling.

## Exploring STEM & Technology Education (Grade 8)

Students will learn all about systems and processes. They have opportunities to study the history of inventions and innovations, including their impacts on society. They learn about the core concepts of technology and about the various approaches to solving problems, including engineering design and experimentation.

## FACS 6/7/8

The Family and Consumer Science Course follows the New York State Standards. As stated on the NYSED website, it is a course designed to help middle level students live in a society of constant change and to improve their quality of life by preparing them to meet their present and future responsibilities as family member and community members, consumers, home managers, and wage earners. The goal is to educate early adolescents to think constructively, make sound decisions, solve problems, and manage resources. Family and Consumer Science content topics align with the National Learning Standards for Family and Consumer Sciences.

The course is taught through six units:

- career development
- clothing management
- financial and consumer resource management
- family/parenting
- personal development and interpersonal relationships
- nutrition and wellness

## Health 7/8

In this course, we'll come together to help you acquire the knowledge and skills necessary to be healthy and safe. It is my goal to give you the knowledge and skills necessary to lead a healthy existence for a lifetime. The class is designed to incorporate hands-on learning in small groups. The learning process will primarily be a participation based class where the more you participate the more you will learn.

## Intro to STEM & Technology Education 6/7/8

This course prepares students to understand and apply STEM concepts and technological processes that are the cornerstone for STEM instruction. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, understanding resources, and laboratory/classroom activities apply student applications of science, mathematics, engineering, computers, and other school subjects in authentic situations

## Living Environment/Life Science (Grade 8) 1 Credit

The course of study includes a description and analysis of life processes, an examination of other life forms, a detailed explanation of reproduction and genetics, a presentation of the topic of ecology, and preparation for the Regents Exam. In addition, the lab provides instruction in dissection, classification and experimentation. This course includes a lab component. This is an accelerated course and will earn students 1 credit on their high school transcript.

## Music in Our Lives

Through listening, dramatization, and group discussion, each student will be challenged to experience music on a whole new level. This class will encourage each student to explore the reasons why individual pieces were written and how music communicates a particular message. The students will examine how this music influences our present society.

## Physical Education

The physical education class helps students to gain varied experience both as a leader and participant. The many sports and activities included in the curriculum are:

- aerobics
- badminton
- basketball
- baseball
- dance
- floor hockey
- football
- gymnastics
- jogging
- orienteering
- outdoor tennis
- paddle tennis
- physical fitness
- self-defense
- softball
- soccer
- weight lifting

Students are encouraged to increase their athletic skills, fitness, and sportsmanship through this class.

## Science 6/7/8

This course teaches the students four major topics. These are Animal Diversity, Chemistry, Human Body and Astronomy. The Air Around You, The Water Planet. Each topic will be taught using a separate Unit Book. Throughout the year, we will use a variety of methods for learning. Students will learn not solely by note-taking, but by laboratory work, projects, computer work, and essays.

## Science Fiction

Students will read a variety of works from these genres, visiting worlds of the past, present, and future. The reading selections will come from the masters in these types of fiction.

## Social Studies 6/7/8

This course surveys topics from the Civil War to the Modern World politically, socially, culturally, economically, and intellectually. It is designed to offer students insight into the American Nation we live in today. Much of the class is project and research oriented.

## Spanish A and B

These courses introduce students to the basic skills of reading, writing, listening and speaking. Emphasis is placed on the oral skills to comply with the communicative approach to teaching a language. Some typical classroom activities are: dialogue role- playing, reading and translating short narratives, and spontaneous conversations.

**Text book is Realidades 1 or Realidades 7A & 8B**

✓ ***Prerequisites:***

- English and reading skills should be on grade level.

## Study Skills

The Resource Program is designed to offer students with a diagnosed learning problem individual and small group remedial skill development. Students who participate in the program have normal intelligence, but through professional diagnostic testing and teacher evaluation have been diagnosed with a learning problem.

The program gives students individual instruction in their areas of greatest difficulty. The curriculum guidelines are a hierarchy of specific basic skills necessary for successful performance in required coursework. Students are individually tested and an educational program is cooperatively designed by the student, resource teacher, parent, and other district personnel. The program also offers specific accommodations created to aid students in meeting course requirements.

## Visual Arts 6/7/8

These courses introduce students to creating, performing, responding, and connecting in the arts, students generate experiences, construct knowledge, and build a more integrated understanding of self and community. They explore and express ideas in multiple formats and present; discover new ideas; and begin to envision possible futures. Through careful study of their own and others' art, students explore and make sense of the broad human condition across time and cultures.

# PROJECTED HIGH SCHOOL CURRICULUM FOR THE 23/24 SCHOOL YEAR

## Projected Offerings for the 23/24 School Year

### *ENGLISH LANGUAGE ARTS*

- *AP English Literature
- College & Career Readiness
- ELA 9
- ELA 9 Honors
- ELA 10
- ELA 10 Honors
- ELA 11
- ELA 12
- Popular Literature
- Science Fiction, Mystery, Horror and Fantasy

### *SOCIAL STUDIES*

- *AP European History
- *AP United States Government & Politics/Honors Economics
- Clinical Psychology
- Current Affairs
- Film & History
- Global I
- Global II
- Government/Economics
- United States History

### *THE ARTS*

- Advanced Ceramics
- Advanced Video Production
- Art History
- Ceramics
- Concert Orchestra
- Concert Choir
- Creativity & Innovation
- Green Art
- Introduction to Printmaking
- Jazz Theory
- Jewelry Making
- Photography
- Studio in Fashion

### *SCIENCE*

- *AP Biology
- *AP Chemistry
- Chemistry
- Earth Science
- Forensic Science
- Living Environment
- Living Environment Ext. B
- Oceanography

### *LOTE*

- Spanish II
- Spanish III
- * Marist College Spanish 101

### *MATH*

- Algebra
- Algebra Ext. A
- Algebra II
- *AP Calculus
- *AP Statistics
- Geometry
- Math in Our World
- Pre-Calculus

### *STEM AND OTHER ELECTIVES*

- Architectural Drawing (Ind. Study)
- Freshman Foundations
- Health-Advanced Life Skills
- *Intro to CNC
- *Robotics
- Sports History
- STEM Challenges
- STEM Job Shadowing
- STEM Job Internships
- Physical Education
- Weight Lifting

**** Students enrolled in these courses have the option to receive college level credit.***

***ALL of the following courses in the program of studies that are not listed above for the 23/24 school year are Board of Education approved and not currently running.***

# ENGLISH

The English field is really many fields. It is literature, writing of various kinds, speaking, grammar, usage, punctuation, spelling, reading, digesting, and compiling. The written or spoken communication of thoughts, ideas, facts and information is important for all careers. Jobs from attorneys to sales representatives through advertising copy-writer, to clerical occupations, all require proficiency in some areas of English. Many careers that relate to communication relate to other fields as well – science, history, psychology. English may be an end in itself or merely a means to an end. It is a craft as well as an art.

★ ***Please Note:*** *Four credits in English are required for graduation.*

## Course Descriptions

### English 9 — 1 Credit

This course is the first of a three-year sequence preparing students for the New York State Regents Examination in Comprehensive English. Students are introduced to various forms of literature and literary techniques. Literary analysis is taught through the use of novels, films, short stories, plays, poetry and short works of nonfiction. Students will read such works as To Kill a Mockingbird, Speak, The Cure, and Romeo and Juliet. Other areas of study include: essay and report writing, the computer as a writing tool, vocabulary development, grammar and oral language skills.

### English 10 — 1 Credit

This course is the second of a three-year sequence preparing students for the New York State Regents Examination in Comprehensive English. Various forms of literature, literary techniques and literary analysis are both reinforced and expanded through the study of novels, plays, and a variety of non-fiction, short stories, poems, music, and films. The focus of course is World Literature. We will explore many different cultures, ethnic groups, customs, and historical events in order to determine our place in a diverse and changing global community. Projects will include: original poetry, original short story endings, analytical essays, descriptions, PowerPoint presentations, considerable Regents and PSAT preparation, oral presentations, and a Research Paper.

### English 11 — 1 Credit

There is a heavy concentration on writing (both skills and form) and reading English literature during the year. Oral reports, a major term research paper, and numerous reading assignments, illustrate the progress of the individual student. The course is a chronological survey of the growth and development of the English language in the Twentieth Century.

### English 12 — 1 Credit

Preparation for college and/or the work force you will spend this year putting some finishing touches on learning HOW to learn. Through reading, writing, listening and speaking you will engage in critical thinking and in-depth inquiry so that you will be better able to analyze problems and develop solutions in your everyday life.

### AP English & STAC Writing 101: Academic Writing I (Grades 11-12) — 1 Credit

Advanced Placement English emphasizes the close textual examinations of selected poetry, novels, plays, short stories, and non-fiction, through class participation, weekly writing assignments, and the term paper. The students test their knowledge and attitudes about literature against those of their peers and the teacher.

The following Advanced Placement English Courses are offered in alternating years:

- AP English Language and Composition
- AP English Literature and Composition

**AP Exams:** In mid-May, the AP English exams are offered to students through the College Board. Successful completion of this exam may enable students to forego the entire freshman year's English course at the college of their choice.

✓***Prerequisites:***

a. an average of at least 85 in English 10R
b. the AP English teacher's approval
c. willingness to read two assigned books the summer before AP English
d. a score of 80 or better on the English Regents exam

### Honors English 9/10 — 1 Credit

A rigorous study of language and literature designed to inspire close examination and critical analysis of classic and contemporary fiction, non-fiction, drama, and poetry. Participation in this curriculum will culminate in acceptance to AP English Language/ AP English Literature in 11th/12th grade.

## English Electives

### Advanced Writing (Grades 10-12) — ½ Credit

Intensive and individualized instruction in writing for specific, professional, and creative purposes. Considerable practice will be afforded in the writing of college essays, personal compositions, short stories, and poetry. The course will also introduce newspaper and magazine writing – including news, feature articles, and editorials. This course is designed for students who have an interest in various forms of composition.

## **Popular Literature** (Grades 9-12 ) **1 Credit**

This English elective course will examine the symbiotic relationship between literature, the mass media, and pop culture. Students will develop an awareness and introspection of how these three mediums shape our society. This portfolio/project based class will encourage a thematic analysis and examination of core motifs through the decades through the music, film, television, and advertising that shaped these generations.

This course will survey a selection of major genres (and subgenres) of Popular Fiction since the twentieth century: crime, romance, mystery, horror, and young adult. While the serious study of popular fiction is now well-established, popular fiction is sometimes not taken seriously by scholars. This course assumes that popular fiction is an important and meaningful literary

genre, and will encourage student readers to begin to ask important questions about the cultural work performed by the books they read. Questions motivating our study of these enjoyable and readable literary genres include: what makes a genre "popular"? What do readers get out of popular fiction? Why has (and is) popular fiction been so often dismissed as "unserious"? Are there meaningful differences between "popular" and "literary" genres of fiction? What cultural work does popular fiction perform? What do we mean by "pleasure" reading? What other kinds of reading are there?

Literacy is expanding, and English language arts (ELA) educators at all levels must help learners develop the knowledge, skills, and competencies needed for life in an increasingly digital and mediated world. Media education is defined as the study of the media with the aim of cultivating people's media literacy competencies (Lee, 2010). For people of all ages, media function as a public pedagogy due to their influential role in "organizing, shaping, and disseminating information, ideas, and values" (Kellner & Share, 2007, p. 3).

- Empowering Voice with Writing, Speaking, and Self-Expression. All learners need to be able to express themselves using writing, speaking, and visual representation using varied modes, genres, and platforms of communication. These competencies are essential to work, life, and citizenship, impacting who has access to conversations, who can speak, and who is heard.
- Increasing Relevance by Critically Examining Digital Media and Popular Culture. Media education includes attention to teaching and learning practices that increase the relevance of school to society. Inquiry pedagogies can help all learners understand the strengths and limitations of different media forms through an examination of the texts and literacy practices of life, including informative, everyday entertaining, and persuasive genres..

**Science Fiction, Mystery, Horror & Fantasy** (Grades 11-12) **½ Credit**

Students will read a variety of works from these genres, visiting worlds of the past, present, and future. The reading selections will come from the masters in these types of fiction.

**College and Career Readiness:** (Grades 11-12) **½ Credit**

This course is designed to introduce students to the continuous process of planning for their future and mastering basic skills needed for college and career success. The curriculum consists of Basic Financial Literacy, College and Career Exploration, and College and Career Readiness. Basic technology skills will be integrated across all units to promote student technology proficiency. The development of portfolios where students will collect and organize information and documents related to their future education and career plans, will be threaded throughout the course.

Students will also prepare for the SAT's and related content while engaging in guided reflections throughout the course to stimulate critical thinking skills as well as simultaneously providing opportunities for self-evaluation of their college and career goals.

**SAT Evidence-Based Reading & Writing/ACT English** (Grades 11-12) **½ or 1 Credit**

This course has been designed for juniors who will be taking the SAT or ACT. The emphasis of this class is placed on Test Taking Techniques, English Grammar, Reading Comprehension, & Writing Skills.

**World Literature and Film Study** (Grades 11-12) **1/2 Credit**

This course is designed to explore unique stories from the seven continents of people or events that students may not yet be familiar with. Students will learn through both the vehicle of various forms of literature as well as different movies and media. Examples of content covered include wax creator Madame Tussaud during the French Revolution, the rise and fall of Akhenaten and Nefertiti - one of the most captivating Pharaohs of Egypt, and a shipwreck at the bottom of the world.

**Humanities** (Grade 12 ) **1 Credit**

A combination of art, history, literature and music. Learn the power of Greek and Roman gods; Fight for Helen of Troy; Suffer with Greek heroes; See the beauty of the Girl with the Pearl Earring. Examine the start of civilization.

**Journalism** (Grades 9-12) **1 Credit**

Students enrolled in this course will be responsible for producing the high school newspaper, The Tuxedo Times. The course will examine a brief history of American journalism, the rights and responsibilities of journalists, style, editing and layout. Students will write news stories, feature articles, sports stories, and editorials. Each student will be required to submit two articles for each issue and assist with all phases of production

**Journalism in the 21st Century** (Grades 9-12) **1 Credit**

In the Journalism course, students explore the field of journalism through the creation of articles, broadcast videos, and podcasts. Student work will be used in the creation of school media (the school's video channel), (the school newspaper), and various other outlets. Students will create various written, video, and audio segments as they examine ethical questions of journalism, gain experience in conducting interviews, and master the various journalistic writing styles. The class will also address the role of journalism and media in our lives through the use of documentaries, feature films, and articles related to media issues. Credited: for elective credit only.

**Communications and Public Speaking** (Grades 10-12) **1/2 Credit**

This course is intended for the professionally oriented student who requires specific training and competence in public address. It entails considerable hands-on exposure to business and professional speaking from a variety of perspectives. The course will also address analysis, interpretation, and oral reading of prose and verse to give students techniques and creative skills in oral interpretation. The course will provide individual attention and practice in the basic elements of voice and diction such as breath control, phonation, resonance, articulation, and pronunciation.

**Survival** (Grades 11-12) **1/2 Credit**

In this course students will meet people who struggle against the dangers of the sea, mountain tops, the frozen north, the mean streets of the homeless, and the world of psychologically challenged teens.

**Science Fiction, Mystery, Horror & Fantasy** (Grades 11-12) **1/2 Credit**

Students will read a variety of works from these genres, visiting worlds of the past, present, and future. The reading selections will come from the masters in these types of fiction.

# MATHEMATICS

Today, more than ever before, the study and appreciation of mathematics is vital to the intellectual development of society and to its scientific, industrial, technological, and social progress. There is a wide variety of employment of people in mathematics-related careers. Types of jobs include office, technical, scientific, clerical, classroom; laboratory and field work in government, private business and industry. There are an increasing number of careers which require math competency. The higher the level of mathematics one achieves, the more employable the individual becomes.

★ ***Please Note:*** *There is a Required Calculator for use in all Math classes. The recommended calculator is the Texas Instruments 83, 83 Plus, 84, 84 Plus, or 84 Plus Silver).Graphing Calculator (cost: approx. $100). This calculator will be used throughout the student's mathematical journey in high school and college.*

## Course Descriptions

### **Algebra** (Grades 8-9) — 1 Credit

This year's course is required for the New York State Algebra Regents Exam. The pace is rigorous and the course is intended for students who have a strong understanding of middle school mathematical concepts and are reading to be challenged. Major topics include operations with integers, operating with algebraic expressions, solving linear and quadratic equations, solving systems of equations, graphing linear and quadratic equations, the geometry of polygons and circles and its integration with algebra and an introduction to probability and statistics.

### **Algebra Extended A** (Grades 9-11) — 1 Credit

This year's course covers the first half of the required New York State Algebra curriculum. It is intended for students who have an understanding of middle school mathematical concepts, yet need more time to fully comprehend the subject matter taught. Major topics include: operations and integers, operations with algebraic expressions and solving linear and quadratic equations, and an introduction to probability and statistics.

### **Algebra Extended B** (Grades 9-11) — 1 Credit

This year's course covers the second half of the required New York State Algebra curriculum. It culminates with the Algebra Regents Exam. Major topics include: solving systems of equations, graphing linear and quadratic equations and the geometry of polygons and circles and its integration with algebra.

### **Geometry** (Grades 9-11) — 1 Credit

This second year high school course will cover topics in geometric relationships, constructions, locus, informal and formal proofs, and transformational and coordinate geometry.

### **Algebra II** (Grades 10-12) — 1 Credit

This course leads to an understanding of algebra by beginning with a review of Algebra 1 concepts and extending these same concepts and skills. Topics such as solving polynomial, exponential, logarithmic, and trigonometry equations are first encountered in this course. The study of angles and triangles is another main emphasis of the course.

## **College Mathematics** (Grades 11-12) **1 Credit**

The College Mathematics course is an extension of Algebra 2 topics to build a foundation for higher level math courses - Linear Algebra, Abstract Algebra, Number Theory and Calculus. Topics include: Relations and functions, polynomial and rational functions, exponential and logarithmic functions, systems of equations and matrices, trigonometric functions, identities and applications, probability, and analytic geometry.

## **Math Applications** (Grades 11-12) **1 Credit**

This year-long math elective focuses on using math skills to solve everyday problems. Major topics include: income, banking, taxes, loans, measurement, budgets, home improvements, health, and travel.

## **Mathematical Concepts** (Grades 11-12) **1 Credit**

This course emphasizes mathematical systems and reasoning. Students will analyze, represent, and solve elementary problems in logic, set theory, and probability; recognize and apply the characteristics of a mathematical structure; develop the ability to analyze, interpret, and apply quantitative information [Quantitative Literacy]; accurately translate descriptive problems into mathematical formulas and solve them; reason from what they know to form new knowledge, draw conclusions, solve problems, explain, and/or predict.

## **Math in our World: Investigations in Statistics and Data Science** (Grades 10-12)

This real-world course will involve the analysis and critique of contemporary, published data and statistical studies. We will examine displays of quantitative information, the predictions of statistical research and study conclusions, all with a critical eye to determine the potential biases in the production and creation of such information. We will learn how data is often manipulated to generate desired conclusions and how to best present quantitative data to communicate our positions clearly and concisely. We will discuss the role of ethics in study design, statistics and data mining. From a Joint ASA-NCTM Position Statement: "As our society becomes increasingly data-intense and information-based, statistical literacy skills to make sense of information and counter misinformation are most important for today's members of a democratic society and a competitive workforce."

✓***Prerequisites:***

- Algebra 1

## **Finite Mathematics** (Grades 11-12) **1 Credit**

This course covers a selection of topics from finite mathematics, with a focus on applications. Specific topics include: equations of lines, the method of least squares, solutions of linear systems, matrices; basic concepts of probability, permutations, combinations, binomial distribution, mean and variance, and the normal approximations, to the binomial distribution. Examples from biology and the social sciences are used.

✓***Prerequisites:***

- Algebra

# SCIENCE

The ways of a scientist involve a constant searching for conceptual schemes which relate to how the world works. These concepts may be developed from observation, experimentation, chance discovery, library research, common sense, and many other procedures. A scientist's search never ends, as each concept attainment opens the way for a new search. Research or theoretical science is an unending quest. The applied scientist uses concepts in a particular way. The pharmacist fills a prescription, the dentist fills a tooth, and the engineer builds a bridge. The numerous jobs available all relate to building or utilizing the conceptual schemes and patterns of how the world works. As new knowledge accumulates, new categories of jobs arise and a basic knowledge of science can be valuable in careers of the future as well as those of today.

Science can be divided into two major area:

- Life sciences, the study of life.
- Physical science, the study of matter, its transformations, and energy.

All of these studies are interrelated, and all deal with natural phenomena. Some additional interrelated categories are environmental science, earth sciences, and behavioral sciences.

## Course Descriptions

**Living Environment/Life Science** (Grades 8-9) **1 Credit**

The course of study includes a description and analysis of life processes, an examination of other life forms, a detailed explanation of reproduction and genetics, a presentation of the topic of ecology, and preparation for the Regents Exam. In addition, the lab provides instruction in dissection, classification and experimentation. This course includes a lab component. This is an accelerated course and will earn students 1 credit on their high school transcript.

**Earth Science/Physical Science** (Grade 9) **1 Credit**

This Regents Earth Science program is a course of study designed to encourage students to investigate their world through first hand experiences (Labs). Earth Science is one of the most relevant disciplines. Through this program, students should gain new understanding toward the world around them, and the processes of change. By investigating the systems of the earth and their interactions students can learn to appreciate the dynamic equilibrium of our planet. Students should also grow to understand their dependence upon the Earth, with finite resources and limited ability to recover from abuse. This program is the integration of scientific principles and attitudes necessary to develop and inform a scientifically literate citizen.

**Chemistry/Physical Science** (Grades 10-12) **1 Credit**

Chemistry is a study of matter and the changes it undergoes. This course explores atomic structure, atomic theory, chemical bonding, mole theory, gas laws, thermochemistry, stoichiometry, redox, equilibrium, chemical kinetics, solution, acid and base theory, electrochemistry, organic chemistry and nuclear chemistry. The focus is on the theoretical and mathematical aspects of chemistry. This course is highly recommended for any college bound student. This class includes a lab component which requires a minimum of 1200 minutes. Students are required to wear goggles, rubber aprons, lab coats, and gloves during lab activities.

**Advanced Placement Physics/Physical Science** (Grades 11-12) **1 Credit**

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.

✓***Prerequisites***:

- Algebra II

**Advanced Placement Chemistry/Physical Science &**
**STAC CHEM 171: General Chemistry I** (Grades 11-12) **1 Credit**

This course is a college level course that continues the exploration into the study of matter and the changes it undergoes. Using knowledge learned in Chemistry setting as a base, this class will build and delve deeper into the topics of chemistry including atomic theory, chemical bonding, stoichiometry, thermodynamics, equilibrium, Kinetics, acids and bases, electrochemistry, redox, organic chemistry, solutions, and chemistry. Although the material is rigorous, students who are willing to work will be successful.

✓***Prerequisites***:

- Chemistry and Permission of the instructor.

**Advanced Placement Biology &**
**STAC General Biology I- 602207 & Lab 60209 (**Grades 11-12) **1 Credit**

This course is an exciting, advanced, college level course designed for those students with an interest in life science and who may be planning a career in health or science. Those students passing the exam, which is given nationally, can actually receive up to 4 college credits. The course syllabus includes field biology, advanced genetics and other molecular experiments, interesting trips and intense immersion in the ins and outs of biology. Topics for study include ecology, cell physiology, biochemistry, Mendelian and molecular genetics and evolution. Students are required to study their notes daily and submit lab write-ups.

✓***Prerequisites***:

- Successful completion of Regents Chemistry.
- A grade of 85 in Regents Biology.

**Conceptual Physics** (Grades 11-12) **1 Credit**

This course delves into the study of motion, energy, electricity, magnetism, light, and sound using basic principles of mathematics. A heavy emphasis on science practices such as planning and conducting experiments, interpreting data, and making arguments based on evidence.

**Environmental Issues** (Grades 9-12) **1/2 Credit**

Our food, our water, our air: find out what is in it for all of us. This class will combine lessons that survey the major issues, case studies, and project-based learning for individual students so that they may explore their own interest areas within the topic. They will also learn how to participate in iNaturalist which is an ongoing biodiversity project run jointly by the California Academy of Sciences and National Geographic.

**Forensic Science** (Grades 11-12) **1/2 Credit**

Forensic Science involves the techniques used to study the way forensic scientists catch and convict criminals. It includes the study of fingerprinting techniques, DNA analysis, blood splatter patterns and ballistics.

**Oceanography** (Grades 11-12) **1/2 Credit**

This course is designed to introduce the student to various aspects of the oceans of the world. Particular attention is paid to the oceans of the world. Areas covered in this class are the history of the oceans, divisions of marine environment, movement of food and energy, ocean ecology, and ocean conservation.

**Human Anatomy** (Grades 11-12) **1/2 Credit**

This course is designed to introduce the students to the structures and their functions within the human body. The course of study covers all aspects of the human body including, but not limited to: cells and tissues, body protection, support and movement, systems of transport, and all major body systems. This course also includes the understanding of disorders and diseases of the human body.

**Ecology** (Grades 11-12) **1/2 Credit**

Ecology is the study of the relationship between organisms and their habitats. A major idea is the way that matter and energy flow through the food webs of various types of ecosystems. We examine population dynamics and spend time manipulating different types of population models. We also discuss ways that ecosystems change over time, including evolution and different types of succession.

**Astronomy** (Grades 11-12) **½ Credit**

Astronomy is the branch of science which looks outward into the universe- one goal of which is to better understand our own planet. We begin by looking at the sky from Earth, including observations of constellations, moon phases, and the sun. Next, we consider our Solar System and the various types of objects in it, including terrestrial planets, gas giants, asteroids, comets and Kuiper Belt objects. Finally, we learn about star formation, galaxies, and the structure of the universe.

**Kinetics** (Grades 9-12) **½ Credit**

Human kinetics is the study of physical activity. It is designed to stress the importance of physical activity and how it relates to a broad field of study which relates to a wide range of career choices. The course will introduce students to ways of defining and thinking about physical activity. It is also designed to help students understand what a profession is and of the career possibilities centering on physical activity.

**Material Science** (Grades 9-12) **½ Credit**

This course appeals to a wide range of students with its unique combination of science, ingenuity, creativity, and exciting hands-on labs. Material Science uses a multidisciplinary approach to science and technology. Scientific principles are used in the study of various materials. Students learn about materials, material uses and applications, scientific theories, and practical experiences that prepare them to work in all areas of STEM pathways.

**Introduction to Environmental Science** (Grades 9-12) **1 Credit**

This course will introduce the field of environmental science and show how an understanding of the natural world around us and the application of scientific method can help us to address the problems facing our planet. Our specific objectives are to: Introduce a variety of environmental problems, and solutions, in a scientific context. Enable students to understand environmental issues using a scientific approach.

## **The Science of Survival** (Grades 9-12) **1/2 Credit**

Have you ever wondered what it would be like to survive on a deserted island or in the woods for a period of time? Would you like to learn what you need to be prepared for wilderness safety, or how to use nature's resources to become more self-sufficient? In this elective we'll be learning about the survival mindset and the skills/techniques of making safe fires, shelter construction, and dealing with water. Learn all about helpful plants, how to identify them and how to use them. We will also explore other tools and crafts of self-reliance such as fashioning arrowheads, soap-making, and other plant-based crafts.

## **AP Environmental Science** (Grades 11-12) **1/2 Credit**

The AP Environmental Science course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world. The course helps students identify and analyze natural and human-induced environmental problems. It enables them to learn how to assess the risks associated with these problems and evaluate alternative solutions for resolving and preventing them. To accomplish this goal, the AP Environmental Science Course and Exam Description defines concepts, skills, and understandings required by representative colleges and universities for granting college credit and placement.

**Prerequisite of successful completion of Earth Science & Living Environment.*

# SOCIAL STUDIES

Social Studies is the study of men and women in groups. Included among the social studies are history, economics, government, sociology, and geography. This field of study can be a valuable asset to you as you continue your education, plan your career, and become a good, well-informed community member. These classes help bridge the gap between people of different cultures, assist us in understanding the past so we don't repeat mistakes, and help us become more familiar with the world and ourselves. Social Studies helps us become educated citizens.

## Course Descriptions

### Global History and Geography I (Grade 9) — 1 Credit

Global History I provides a chronological overview of major historical, political, and social developments from prehistory until the 1700's. Students will learn to evaluate and synthesize information from a variety of sources and viewpoints. Projects and field trips will be used to reinforce core concepts of the state curriculum. This is the first part of a two-year required sequence for graduation.

### Global History and Geography II (Grade 10) — 1 Credit

This is the second part of a two-year required sequence for graduation. Global History II continues the chronological historical concepts from the 1700's until the present. Clear writing skills will be emphasized in preparation for the Global History and Geography Regents Exam, a requirement for high school graduation. Students will further refine the use of varied primary sources and points of view. Later portion of the course will focus on preparation for the Regents exam.

### United States History and Government (Grade 11) — 1 Credit

United States History proves a chronological approach that covers the full span of United States History from the American Revolution to the present presidential administration. Students will be involved in American studies through class participation, library projects, oral and written reports, current events, and a variety of map and writing exercises. Students must take and pass the United States History and Government Regents at the end of the year.

### Participation in Government (Grade 12) — ½ Credit

Participation in Government and offers unique opportunities for students interested in studying government through field trips, internships and political organizations. It will also include an in-depth survey of government, an individual's rights and privileges in our society, and the voting process. The main topics in Civics will be:

- Foundations of American citizenship
- The individual and society
- Local, state, and national government
- Our American legal system

## **Economics** (Grade 12) — 1/2 Credit

Economics will cover the American Economic System. Topics will include:

- Foundations in Economics
- Economics and our world
- Government and the economy
- Economics and consumers

Required readings will include the Business Section of the New York Times. In this class, students will analyze political cartoons and articles from other newspapers and magazines as well.

## **Criminal Law** (Grades 9-12) — 1/2 Credit

This one semester course is intended to provide the student with a functional knowledge of the American legal system, with primary emphasis on criminal law. Topics studied include: The historical basis for establishing laws, how to advocate as citizens within the context of a legal environment, the nature and prevalence of crime, and the court system of the United States as it pertains to criminal law in the phases of investigation, defense, proceedings, and trials. Trial procedure will be taught, as well as how to write coherent and accurate legal briefs. Students will be required to analyze specific court cases related to the topics of study, as well as present their case research with clear and precise legal arguments (both written and through class presentations). Instruction will be primarily discussion-based, with emphasis on relating the topics of study to the expectations of responsible citizenship. A mock trial is conducted at the end of the course. Requirements: a local assessment is given as the final exam.

## **Current Affairs and Global Issues** (Grade 9) — 1/2 Credit

Current Affairs and Global Issues is a ninth grade elective designed to promote the usage of critical thinking skills in the study and analysis of current newsworthy events around the world. In the study of news from around the world the students will learn geography, culture, and history in order to gain a greater insight into the events.

## **Facing History and Ourselves Grades** (Grades 9-12) — 1/2 Credit

Facing History's program is an interdisciplinary model of education that integrates a rigorous investigation of history with critical questions about ethics and civic engagement. Facing History fosters the development of social-emotional competencies with alignment to Common Core State Standards. By studying the historical development of the Holocaust and other examples of genocide, students make the essential connection between history and the moral choices they confront in their own lives.

**Film and History** (Grades 9-12) **1/2 Credit**

Film and History is a half year social studies elective that examines American historical events as shown in popular movies. Such as (JFK, Glory, Forrest Gump, Saving Private Ryan, Gladiator, Kingdom of Heaven, Elizabeth and many others). The class will talk about the historical accuracy of the movies and how the subjects are presented. Sociological themes of race, identity, social class, gender roles and others will also be explored. We will compare ways movies were made in different time periods. We will also discuss why a filmmaker changes history for the benefit of a movie. Since rated R movies will be shown, parental consent is necessary.

**History of Technology** **1/2 Credit**

This course studies technology from the earliest use of tools through modern information-based systems. The development of technology, through the agricultural, industrial, and information ages will be traced.

**History of Sport** **1/2 Credit**

This course examines the place sports have held in American life since the mid-nineteenth century. Focuses on sports as a reflection of our social, political, and economic make-up and its ability to effect and shape our institutions. Particular attention will be given to social class, race and ethnicity, gender, community, technology, and commercialization and the media.

**Personal Origins and Pathways (How Did We Get Here?)** (Grades 11-12) **1/2 Credit**

This elective course is a hybrid of studying American immigration history and individual family histories. The ultimate goal of the course will be for students to gain a solid understanding of the emigration push-factors of many countries across the world and a possible familial link to one or more of these factors. The course is divided into four main categories: Colonial America, the Century of Immigration (1820-1924), Modern Times, and personal family history. In conjunction with the study of immigration patterns to the United States, a student will begin researching his or her own family's history. At the end of the semester, students will be required to present a research based project (multimedia and paper component) that will publish a narrative of their family's history.

## **Psychology** (Grades 11-12) **1/2 Credit**

Psychology is a half-year elective open to 11th and 12th grade students who wish to expand their knowledge as skills in social science. Topics covered by the course include: emotional adjustment, maladjustment, Freudianism, and other personality theories, dream interpretations, parapsychology, magic, states of the subconscious and selected topics in social psychology, nightly reading and bi-weekly written assignments are geared to develop students reading comprehension and writing skills. Psychoanalysis of short stories is used to develop students' ability to scientifically analyze behavior.

✓***Prerequisites:***

- An 85 average for the year in Global History or American History
  OR
- Permission from the instructor

## **Clinical Psychology** (Grades 11-12)

Clinical Psychology is the study of the nature of psychopathology, the effectiveness of psychotherapy interventions, prevention and therapy, health psychology, and the role of environmental factors such as interpersonal relationships in psychological disorders. Students will explore the biological bases of psychological disorders, explore the DSM-V, and study treatment methods..

## **Sociology** (Grades 11-12) **1/2 Credit**

Sociology is a half year elective open to 11th and 12th grade students who wish to develop more advanced skills/knowledge in social science. Some topics covered by the course include social adjustment and social deviation, cultural diversity and ethnocentrism, groups and social institutions, population and race relationships, as well as social mobility and collective behavior. Two independent book reports relevant magazine articles are used to integrate sociological concepts and analytical writing skills. Homework includes nightly textual reading and bi-weekly written assignments.

✓***Prerequisites:***

- An 85 average for the year in Global History or American History
  OR
- Permission from the instructor

## Advanced Placement European History & STAC HIST 121 Modern Europe 1500-1848 (Grades 10-12) — 1 Credit

A college level course in European History which will serve as a replacement for Global History II and will be offered to the most academically successful ninth grade students at the completion of Global History. The objectives of this course are to develop an understanding of some of the principal themes in modern European History: to develop the ability to analyze and express historical evidence; and to develop the ability to analyze and express historical understanding through written expression. Intellectual, cultural, political, diplomatic, social, and economic history will be examined.

✓ ***Prerequisites:***

- A minimum of an 85 cumulative GPA
  OR
- Permission from the instructor

## Advanced Placement Psychology & STAC PSYCH 103 General Psychology (Grades 11-12) — 1 Credit

A college level course offered to students who wish to expand their knowledge as skills in the social sciences. Topics covered in the course include: methods, approaches and history: biological bases of behavior; sensation and perception; states of consciousness, learning, cognition, motivation and emotion; developmental psychology; personality, testing and individual differences; abnormal psychology; treatment of psychological disorders; and social psychology. This course requires a national examination at the completion.

✓ ***Prerequisites:***

- A minimum of an 85 cumulative GPA
- Permission from the instructor

## Advanced Placement United States History (Grades 11-12) — 1 Credit

This is a college-level course that will prepare students for the AP US History Examination. This course will serve as a replacement for the United States History. This course examines the American economic and social climate from the colonial period through the present era.

✓ ***Prerequisites:***

- An 85 or better final average and final examination in Global History II, AP European History or United States History

## Advanced Placement United States Government & Politics & STAC POLS 201: Contemporary American Politics (Grade 12) ½ Credit

Examination covers the following major content areas: constitutional underpinnings of United State government; political beliefs and behaviors; political parties, interest groups and mass media; institutions of national government; the Congress, the presidency, the bureaucracy, and the federal courts; public policy; and civil rights and civil liberties.

✓***Prerequisites:***

- An 85 or better final average in American History

## Honors Economics (Grade 12) ½ Credit

Similar to the Regents course in focus with a greater emphasis on higher level intellectual inquiry and concepts. Students must have a genuine interest in the subject matter and possess strong oral communication and discussion skills.

✓***Prerequisites:***

- 85 or better in American History
  OR
- Teacher recommendation

## Course Descriptions

### Spanish Level II (Grades 10-12) — 1 Credit

This course introduces more technical vocabulary and includes longer narratives for reading comprehension. The four basic skills are continued on a higher level with emphasis placed on verb conjugations and speaking ability.

**Text book is Realidades 1 or Realidades 7A & 8B**

### Spanish Level III (Grades 11-12) — 1 Credit

Level III Spanish concentrates on a more comprehensive approach of pulling all basic skills together in order to prepare the student for the Local Assessment. A major focal point is reading and auditory comprehension. Students will learn to write notes, personal letters, and compositions.

**Textbook is Realidades 2- Part II**

### Marist College Spanish 101 (Grades 11-12) — 1 Credit

A continuation of the active development of the four communicative skills (listening, speaking, reading, and writing) within the context of the study of different topics of Hispanic culture. These topics include:

- Different Concepts of Family
- The Geography and Demography of Spanish America
- The History of U.S. relations with Latin America

Students are expected to participate in all class activities. Spanish is the language of instruction.

This course allows a student to earn (3) college credits for a nominal fee ($300.00), with a grade of 70 or better.

★ ***Please Note:*** *Students can be enrolled in Advanced Placement Statistics and either Pre-Calculus or Advanced Placement Calculus at the same time.*

✓ ***Prerequisites:***

- Successful completion of Spanish III (with no quarter grade lower than an 84)
- 85 or above on the Spanish Regents exam
- Permission from the teacher

## **Conversational Spanish** (Grades 11-12) **1 Credit**

The objective of this course is to increase fluency, improve vocabulary, and expand the use of conversational Spanish. While speaking is the main focus, this course will use films, current events, online content, and literature to further develop and refine written and spoken Spanish language. Through class discussion, projects, and activities students will improve their understanding of Spanish and Latin-American language and culture and will develop greater competence and confidence in using Spanish to interact with others.

✓***Prerequisites:***

- Students must have successfully completed Spanish III

## **French I** (Grades 9-12) **1 Credit**

French I introduces the student to basic skills of speaking, reading, writing and listening of the French language. Some assignments concern dialogue role playing, reading and translating of short passages and grammatical constructions. The communicative approach to language acquisition is employed; therefore, an emphasis on speaking skills and listening comprehension is evident. Homework averages 20 minutes per evening.

**Textbook is Bienvenue**

## **French II** (Grades 10-12) **1 Credit**

This course includes verb conjugations of the indicative mood (present, past, future, and imperfect). More technical vocabulary is introduced this year. Activities include conversational readings, translation of longer narratives, and answering of questions to measure reading comprehension, and dictation. The improvement of the four basic skills (reading, writing, speaking and listening) is continued at a high level. An emphasis is placed on expression that uses different verb tenses and expanded vocabulary. The communicative approach to language acquisition is employed; therefore, an emphasis on speaking skills and listening comprehension is evident. Homework averages 20 minutes per evening.

**Textbook is A Bord.**

✓***Prerequisites:***

- Completion of Level I with a passing grade
  OR
- A passing grade on the French Proficiency Exam at the 8th grade level
  AND
- Teacher recommendation

## **French III** (Grades 10-12) **1 Credit**

Level III French pulls together all the basic skills together in order to prepare for the Regents Examination, the culminating assessment of the first three years of French study. Goals of this course include increasing vocabulary and reviewing some grammar structures necessary for clear communication. Major focal points include listening and reading comprehension. The class is conducted largely in French, and students will communicate actively and effectively in this environment. Some classroom activities include role- playing, dialogues and narratives, oral comprehension exercises, and oral presentations by the student. Students shall be expected to compose well-written scenarios and letters, both personal and business. The speaking skills and listening comprehension is evident. Homework averages 20 minutes per evening.

**Textbook is En Voyage**

✓***Prerequisites:***

- Completion of French II
- A recommendation by the teacher

## **University French** (Grades 11-12) **1 Credit**

Part of the University in High School Program from SUNY Albany that allows students to earn college credit. This course will focus on three areas: advanced grammar, advanced conversation, and an introduction to French literature and history. In the introduction to French literature, students will read excerpts of French writers and discuss these readings in class. This class is conducted almost entirely in French.

**This class allows students to earn up to 4 college credits for a nominal fee with a grade of 75 or better.**

✓***Prerequisites:***

- Successful completion of French III and of the French Regents Examination
- Permission of the teacher

# PHYSICAL EDUCATION

Physical Education is an integral part of the total school program and the goal of the program is to have students attain the highest degree of physical fitness possible.

★ ***Please Note:*** *All students are required to take physical education each year, and may be excused only by a doctor for medical reasons.*

## Course Descriptions

**Physical Education** (Grades 9-12) **½ Credit**

The physical education class helps students to gain varied experience both as a leader and participant. The many sports and activities included in the curriculum are: aerobics, badminton, basketball, baseball, dance, floor hockey, football, gymnastics, jogging, orienteering, outdoor tennis, paddle tennis, physical fitness, self-defense, softball, soccer, and weight lifting. Students are encouraged to increase their athletic skills, fitness and sportsmanship through this class.

**Physical Education – Weight Lifting** (Grades 9-12) **½ Credit**

All efforts will be made to accommodate the students' choice for weight lifting. However, if it is not possible, students will be scheduled for the general physical education class instead.

**Project Adventure** (Grades 11-12) **½ Credit**

This course uses a different approach to learning. The course will teach you how to assume leadership roles, teach problem solving and conflict resolution skills, learn to work cooperatively, and build self-confidence and self-esteem by participating in different types of cooperative and non-competitive games and activities. You can also expect to increase your level of agility and physical coordination as many of the activities will be outdoors, depending on the weather. Students will develop an increased familiarity and identify with nature through such activities as hiking, rock climbing, rafting, and related activities.

**Yoga** **1 Credit**

This course is designed to introduce students, safely and accessible, to the basic postures, breathing techniques, and relaxation methods of yoga. Students will begin to experience the benefits of stretching, moving, and breathing freely as they relieve built up stress, learn to relax, and ultimately get more out of day-to-day life. The aim of this course is to promote vibrant health and to tap the body's latent energy reserves.

# FINE & PERFORMING ARTS

Courses in the Fine Arts are not meant for those who are already advanced in drawing, painting, and sculpting, but rather for the students who want to learn how to develop these skills, In a sense, art classes are much like language classes in that one takes the course because they're interested in learning the language, not because they already know how to speak it fluently. The beginning art student develops the "grammar" and "vocabulary" necessary to express themselves, and then is encouraged to explore their creative side and turn ideas and concepts into works of art. Concepts of design, the ability to critique, and the history of art in various cultures are also important in a well- rounded arts education.

Careers in the art field cover a wide range of roles and job descriptions. The illustrator, graphic designer, architect, sculptor, painter, animator, and all successful artists begin their careers by learning how to see and draw; and must develop a strong sense of aesthetics. In each art class, career opportunities will be discussed and researched.

## Course Descriptions

### **Art History** (Grades 9-12) — 1 Credit

Students are introduced to significant works of art, artists, and artistic movements that have shaped the art world and influenced or reflected various periods of history. Course content emphasizes the evolution of art forms, techniques, symbols, and themes. The course covers the relationship of art to social, political, and historical events throughout the world, while covering multiple artists, traditional and contemporary aesthetic issues, and the development of art. Critical analysis of visual images, as they communicate and express the history, needs, and ideals of society and individuals is included. The focus of this comprehensive course is on expression of ideas through application of a variety of media, study of historical and contemporary art and artists from a worldwide perspective, and critical analysis and exploration of techniques as they communicate and express the history, needs, and ideals of society and individuals.

### **Fundamentals of Art (Studio in Art)** (Grades 9-12) — 1 Credit

This full year course is offered to the beginning art student and is intended to introduce the student to a wide variety of media and techniques. In this class students will:

- Gain proficiency in drawing from observation
- Develop an aesthetic awareness (personal opinions about what is good art) and ability to critique their own work and that of other artists
- Learn about important artists and artwork from different cultures and time periods
- Learn about the Elements and Principles of Art and how to apply them to composition

## **Ceramics** (Grades 9-12) — ½ Credit

Ceramics is a foundation art course open to all students. This course will study the elements and principles of design using three dimensional materials. Using clay, students will explore fundamental hand building techniques such as coil, modeling, and slab construction. Students will explore creating functional ceramics, abstract art and figurative works while investigating a variety of cultural perspectives and accomplished artists.

## **Advanced Ceramics** (Grades 10-12) — ½ Credit

In this class you will have an opportunity to use prior knowledge and experience for a deeper and broader understanding of clay. Students will continue to develop technical skills and will be challenged as artists creatively. Students will be introduced to more complex concepts and vocabulary incorporating artistic perception, creative expression, historical/cultural context and aesthetic valuing, making connections and relationships to students' interests and future career opportunities.

✓ ***Prerequisites:***

- Ceramics

## **Creative Crafts (Studio in Crafts)** (Grades 9-12) — 1 Credit

This course helps students apply form and structure to the materials and accompanying aesthetics of crafts through a survey of a wide range of craft forms; some possibilities include fibers, ceramic work, silk-screening, mask-making, papermaking, jewelry work, and so on. The focus of this course is on communication of ideas and application of form and structure through diverse media, and the study of historical and contemporary art and artists from a worldwide perspective.

## **Creativity and Innovation** (Grades 9-12) — ½ Credit

This course encourages the solving of technical problems through the use of unconventional approaches. Topics include: methods of approaching creativity and innovation, developmental factors of creativity and innovation, and cultural impact of creativity and innovation. Given a defined supply of materials, students will use laboratory facilities to optimize solutions to stated technical problems.

## **Digital Imaging** (Grades 9-12) — 1 or ½ Credit

In Digital Imaging, students begin by learning the basic functions of digital cameras and general photographic concepts such as composition, subject, exposure, lighting and flash. They will come to understand how and when to use particular digital options (ISO and shutter speed), under what existing circumstances (sunlight, clouds, indoor under different colored lights) to produce a good image. Students then learn how to use an image-processing program to create and manipulate digital images. Specific skills taught in this course include using layers, cropping images, color and lighting concepts such as hue and saturation. Students will also learn how to layout those images for publication using the software programs available. The concepts of composition, contrast, repetition, alignment, proportion, and balance and other elements of design will be used to create yearbook pages. Skills taught in this class also include using a ladder, organization skills, scheduling. The goal of the class is to develop these skills, developing a better understanding of photography and design.

## **Drawing and Painting** (Grades 10-12) **1 Credit**

This course is for students who studied the basics/fundamentals of art. Students will be given a wide variety of mediums to work in. These include, but are not limited to: drawing materials, pastels, watercolors, acrylic painting, clay, papier mache and other 3- D materials. Weekly drawing assignments are invented by the students themselves and give them extra practice in developing creative solutions in a range of drawing mediums. Field trips are taken to see current exhibitions of well-known artists.

## **Advanced Drawing and Painting** (Grades 10-12) **1 Credit**

This course is a continuation of Advanced Studio Art I with the first half of the year involving projects developing skills in relation to drawing and the second half of the year focuses more on three-dimensional art skills. Work generated in this class could be used in creating a portfolio for entry into a college art program or for showing potential employers. Field trips are taken as related to the curriculum.

## **Fashion Design (Studio in Fashion)** (Grades 9-12) **½ Credit**

Studio in Fashion courses emphasize applying personal artistic expression to design wearable objects. Students analyze and apply a variety of concepts, media, techniques, and processes in their fashion design work. Courses may also include an understanding of aesthetic issues associated with fashion design. Students will study fashion from historical, contemporary, and world cultures. Students engage in critique of their works of fashion, the fashion works of others, and works by professional fashion designers.

## **Green Art** (Grades 10-12)

This class unifies traditional artistic skills with real world practicality. Students will learn the skills necessary to create art using a variety of materials that have been recycled as well as found objects. Like other art classes, a wide range of materials will be used to create 2-D and 3-D works of functional art. Students will use their knowledge of the principles and elements of art to create art in unique ways. Students should expect multiple brainstorming sessions, sketches, and other "think tank" approaches to creating an artwork. Students are also expected to be critical, creative thinkers and inventors, developing ideas and products on their own.

✓***Prerequisites:***

- Fundamentals of Art

## Jewelry Making (Studio in Jewelry Making) (Grades 9-12) ½ Credit

Jewelry courses engage students in the study of jewelry design, its media, techniques, and processes, and the fabrication of small-scale objects and individual pieces of jewelry. Students develop expressive and technical skills in creating jewelry and using art metals. Advanced design concepts in form and surface decoration may be explored. Study ranges from the early history and aesthetics of jewelry design to contemporary times. Traditional designs may be studied as a basis for students' personal design concepts. Students apply design strategies in creating jewelry and participate in critiques of their jewelry and metal works, the jewelry and metal works of other students, and those by professional jewelers and gemologists.

## Photography (Grades 9-12) ½ Credit

This is a sixteen week (1/2 year course) designed to introduce high school students to the history, practice, and aesthetics of photography in our culture. They will learn, through a series of structured experiences, what constitutes good composition along with analytic standards for critiquing their own and others' work. They will learn the basic principles of how a camera works starting with building their own pinhole camera. They will experience basic black and white printing in the darkroom, they will work in 35mm black and white film learning different aspects of the camera through focused assignments and learn to scan their images.

## Advanced Photography (Grades 10-12) ½ Credit

Students will build on knowledge gained from photography I. Use basic Photoshop tools for adjusting and cropping their images. They will also learn the technical aspects of developing and printing/ enlarging their own film. Hand-coloring and alternative emulsions will be explored. Students also use Photoshop for selective color enhancements and assemble their work into a theme.

## Introduction to Printmaking (Grades 9-12)

Printmaking is a process based on the ability to transfer images onto another surface creating an edition of the same image. This class Introduces students to the production of multiple images from a single design while emphasizing on design and creative use of the materials and techniques of the relief. Students will learn a variety of printmaking techniques while learning historical, cultural and conceptual aspects of printmaking. Students must be prepared to question and critique their own work as well as the work of other artists, and approach each art process with an open mind and positive attitude.

## Theater Arts 1 Credit

This course exposes students to the various elements of Theatre. Students will be introduced to the craft of acting through the performance of improvisation, pantomime, monologues, scenes, and ensemble projects. The fundamental elements of staging a play (set design, lighting and sound, costuming, makeup, and the role of the director/producer) will be addressed. Lastly, students will gain an understanding of the history of theater as well as the varieties of drama.

# PERFORMING ARTS & MUSIC

Every piece of music is directly tied to and reflects the culture, environment, and lifestyle of the society it comes from. In order to understand a piece of music, one must understand what was happening in the world at the time it was written and how its message was communicated.

## Course Descriptions

**Jazz Theory** (Grades 11-12) **½ Credit**

This course is about the fundamentals of jazz harmony, chord voicing, harmonization and progressions. Topics covered in this course will range from scales, modes and secondary dominant scales in jazz improvisation to rhythmic fundamentals of swing, and melodic analysis of improvised solos. Students will learn these topics through music originating in America and other non-European countries. Students will explore the effects of jazz on the developing culture around them. This course is on the same difficulty level as "AP Music Theory" with a capstone project of original composition, arrangement, or performance for the community.

✓ ***Prerequisites:***

- Music Theory 1 & 2

**Intro to Music Theory** (Grades 9-12) **½ Credit**

This course is designed to introduce theory to many areas of music. After a thorough investigation of the song writing process, students will have the opportunity to create (using the design process), perform, produce, and publish an original composition as a means of personal and cooperative identity.

**Applied Music Theory** (Grades 10-12) **½ Credit**

This course is a continuation of Introduction to Music Theory and is designed to expand or build upon the previously learned skills within many areas. The exploratory nature of this course will allow students to problem solve and collaborate on composition within different genres of music.

**AP Music Theory** (Grades 10-12) **1 Credit**

A college level course offered to the serious music student. They will have the opportunity to study, analyze, and synthesize aspects of music composition. Students will focus on compositional styles and techniques of traditional and modern composers to better understand the issues involved in creating and notating music. This class will help provide student musicians with a strong background in theory, and will prepare for college placement tests.

## **Band** (Grades 7-12) ½ Credit

Band is a class for those who have participated in band in previous years or who can demonstrate reasonable proficiency on a band instrument. The Concert Band consists of all woodwind, brass and percussion instruments. The band performs a wide selection of musical compositions throughout the year. Public performance is an integral part of the class. Weekly group lessons are required, during school, as a part of this class. Through daily rehearsals, students learn advanced techniques in reading notes, counting rhythms, scale mastery, listening, balance, blending and tuning.

✓***Prerequisites:***

- Prior band experience
  OR
- Permission of instructor

## **Choir** (Grades 7-12) ½ Credit

Choir is the perfect environment in which to develop your singing voice. Members will be introduced to proper singing technique through breathing exercises and vocalizations. The music covered is standard choral repertoire, as well as the Broadway, contemporary and gospel styles. Opportunities are available to hard working students to audition for selected performing groups that will travel and represent our school in various music performances and events.

✓***Prerequisites:***

- Prior singing experience
  OR
- Permission of instructor

## **Introduction to Drama/Fundamentals of Singing** (10-15 Students) 1 Credit

This course is designed to expose students to the world of the Arts, by giving them a hands-on introduction to the American Stage Acting and to develop their talents through different emotions and situations. Students will study plays, tragedies, and musicals from Shakespeare to Neil Simon, and learn acting exercises, warm-ups, improvisations, and auditioning skills.

Fundamentals of Singing will explore the voice as an instrument, and how to use and care for it. Students will also learn how to breathe properly. Study will also include different kinds of music and how to perform it.

By combining these two classes, the students will become better performers and boost their self-esteem.

## **Instrumental Music Lab** (Grades 9-12) 1 Credit

This course is designed for students who have an interest in learning a new instrument. The course will start from the ground up in teaching the fundamentals of instrumental music and performing. The class will have the opportunity to perform at the GFB Winter and Spring Concerts. This class welcomes students who already play an instrument but are looking to further their musical education with a secondary instrument along with students who have no instrumental music experience.

## **Music in Our Lives** (Grades 9-12) — 1 Credit

Through listening, dramatization, and group discussion, each student will be challenged to experience music on a whole new level. This class will encourage each student to explore the reasons why individual pieces were written and how music communicates a particular message. The students will examine how this music influences our present society.

## **Orchestra** (Grades 7-12) — ½ Credit

Orchestra is a performance-based class which includes violin, viola, cello and string bass students. We follow the National Association for Music Education's Course of String Study and Standards. Orchestra students perform music from the Renaissance, Baroque, Classical, Romantic and Contemporary periods, but we also include "fiddle" tunes and popular music. Other musical opportunities include: NYSSMA, All-County/Area-All-State/All-State, community outreach performances and a yearly recital.

## **Vocal Ensemble** (Grades 10-12) — 1 Credit

Vocal Ensemble is an advanced vocal music class for experienced choral students who want to expand their knowledge and experience with a wide array of vocal music styles. Students in this course will study:

- Advanced music theory
- Stage presence
- Audience communication
- Choreography

Students will be introduced to more advanced levels of music including:

- Gregorian chants
- Madrigals
- Vocal jazz
- Complex "Broadway showstoppers"

Only students interested in the serious study of vocal music should consider this course. Grades will be based on class participation and formal performance in school sponsored concerts and performances.

**Requirements:** Students taking this course are required to participate in the George F. Baker Tuxedo High School Concert Choir for the school year.

✓***Prerequisites:***

- Students must be able to read music
- Must successfully complete an audition
- Chorus Director's recommendation

# STEM AND PATHWAYS TO GRADUATION

STEM education is about teaching and learning designed to be taught through collaborative, practical, investigative problem solving approaches in a classroom or laboratory equipped with modern technological tools, equipment, and space to allow students to creative, express ideas and develop solutions.

## STEM Requirements

A student must earn credits through grades 7-12 in the following courses (5 credits should be earned prior to their junior year preceding graduation).

| STEM Core courses | 5 credits |
|---|---|
| ▪ Pathway Core courses | 1 credits |
| ▪ Pathway electives | 1 to 2 credits |
| ▪ STEM electives | 1 to 2 credits |
| ▪ STEM Job Shadowing | .5 credits |
| ▪ STEM Career internships | .5 credits |


## Pathways

Collaborative studies in the following areas: Science/Math, Technology/Engineering and Arts/Humanities

## STEM Core Courses

STEM Core courses are required courses for all students designed around STEM criteria that will provide students with various skills and experiences that will prepare students with a base of knowledge of concepts and practices that can be applied to all areas of STEM.

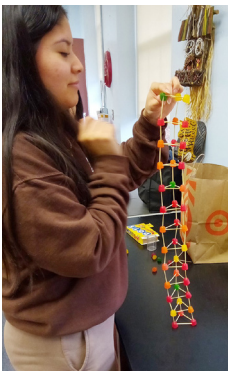
**Skills:**

- brainstorming
- presentation and demonstration skills
- collaboration
- systems and systematic approaches
- design process
- team building skills
- group discussions
- understanding and integration of all areas of technology
- understanding the connections of STEM (What is science, technology, engineering and math) and connections to real world problems

TUXEDO STEM ACADEMIES

## These STEM core courses are:

| STEM "base" Core Courses | Grade | Credits |
|---|---|---|
| Introduction to STEM | 7 | 1 |
| Exploring STEM | 8 | 1 |
| Freshmen Foundations | 9 | 1 |
| Pathways Course | 10 | ½ |
| STEM Elective | 10 | ½ |
| Digital Literacy | 7-12 | ½ |
| College & Career Readiness | 10-12 | ½ |



## Pathway Core Courses

Pathway Core courses are courses that help students understand the universal aspects of a Pathway and apply problem-solving techniques in their search for solutions to real world problems in that content area. These universal aspects are typically taught through extension activities of the context of the respective pathway.

These courses are offered within the following pathways but are not limited to:

- Technology and Engineering
- Science and Mathematics
- Arts and Humanities



## Pathway Electives

Pathway electives are courses in content area/fields & design that expand on the Pathway core classes into topics in specific areas while using engineering concepts for that topic and/or subject. This allows students to create and express their ideas to further an interest in any field or career.

These courses can be but are not limited to:

- Computer Programming
- Digital electronics
- Robotics
- Genetics
- Industrial Design & Development

## STEM Electives

STEM electives are courses that connect all pathways that expand on the foundation classes with the history or connections of STEM concepts while enhancing a skill or skills for all pathways to graduation

These courses can be but are not limited to:

- 3D modeling
- Creativity and Innovation
- Design and Drawing
- Principles of engineering
- Web Design
- Material Science
- History of Technology
- STEM Challenges

## STEM Job Shadowing

Offered during junior year, our Job Shadowing Program provides one-day and multi-day shadowing experiences. This will facilitate exploration and encourage students to spend time with businesses and/or community volunteers in various STEM fields. Through observation and conversation, participating students have the opportunity to learn more about a profession, relate STEM skills, receive career-related advice, and reflect on the ways in which their STEM education can prepare them for life and real-world experiences.

## STEM Career Internships

Offered as early as second semester junior year, this course will facilitate work experience for students with businesses and/or community volunteers in various STEM fields. Daily/Weekly meeting and/or conversation will allow participating students to have the opportunity to work within a profession that relates STEM skills and creates real-world experiences in a STEM pathway of their choice.

## Course Descriptions

### Intro to STEM & Technology Education (Grade 7)

These STEM courses prepare students to understand and apply STEM concepts and technological processes that are the cornerstone for STEM instruction. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Technology content, understanding resources, and laboratory/classroom activities apply student applications of science, mathematics, engineering, computers, and other school subjects in authentic situations.

### Exploring STEM & Technology Education (Grade 8)

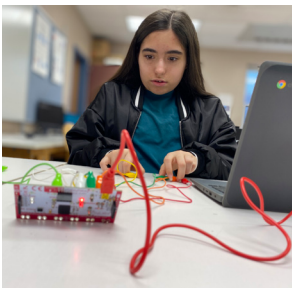
Students will learn all about systems and processes. They have opportunities to study the history of inventions and innovations, including their impacts on society. They learn about the core concepts of technology and about the various approaches to solving problems, including engineering design and experimentation.

### Freshmen Foundations (Grade 9) 1 Credit

Students will take part in a STEM approach to teaching and learning with culminating activities that put their collaborative skills to the test. Students will enjoy the hands-on minds-on approach to learning about science, technology, engineering, and math. In addition both Design and Creativity will be explored. Students learn new ways to think that will enable them to interact more fully with software and Graphics Design. This course prepares students to understand and apply skills, concepts and technological processes through the use of problem solving and hands-on activities. The activities and academic applications engage the learner in collaboration and investigative research to embrace all content areas having in-depth discussions regarding their reasoning for supporting or not supporting a particular side to an issue as well as the integral steps of the design process and problem solving.

**Units:**

- Brainstorming
- Problem Solving Techniques and Applications
- Collaboration
- Determining constraints and Defining the criteria
- Engineering Design Process
- Use of Adobe Software
- Graphic Design
- Creating Solutions
- Systems and systematic approaches
- Testing and evaluating skills



### STEM Applications — 1 Credit

This course will include additional STEM concepts and prepare students to apply STEM skills to specific pathways of design. The units and activities are intended to highlight engineering design and material science, material uses and production applications. The primary elements of STEM education are emphasized within all pathways while applying technology and systematic processes.

**Units:**

- Introduction to Material Science
- CAD (Computer Aided Design)
- Engineering design (in the areas of Computers, Robotics, and Packaging Design)

✓***Prerequisite:***

- Freshmen Foundations

### STEM Pathways — 1 Credit

Students will be introduced to units and activities that are intended to highlight the Pathways and primary concentrations (Science/Math, Technology/Engineering and Arts/Humanitie). The use of various Technological resources are used while identifying real-world design and engineering problems. The course exposes students to careers, scenarios and activities in these various STEM pathways.

✓***Prerequisite:***

- STEM Applications

## Pathway Electives

### Build-It (Grades 9-12) — ½ Credit

This course is intended to introduce the students to the use of hand tools, portable tools and woodworking machines. Students will be involved in project design, material selection, planning, layout and safety in woodworking and CNC (Milling Computer Numerical Control). The focus of the class during the first nine weeks is on developing skills. The remainder of the course will focus on project design and construction.

### Career Exploration (Grade 7-8)

Students will study the choices they have for education, careers, and the world of work. The instructor will stress self-knowledge, educational and occupational exploration, and career paths. Students will set goals and develop plans of action. Students will also work on self-esteem, improving communication, identifying leadership qualities, improving their ability to work with others, and setting goals for the future.

## **Digital Journalism** (Grades 7-9) **1 Credit**

This course will allow students to coordinate the production of a school newspaper, yearbook, or literary magazine. Students will be introduced to digital media and the concepts of newsworthiness and press responsibility; develop students' skills in writing and editing stories, headlines, and captions; and teach students the principles of production design, layout, and printing. Photography and photojournalism skills may be included.

## **Digital Literacy / ICT Applications & Library Info. Skills** (Grades 7-8)

A course on computer basics, internet and computer security, hardware and software relating to the evolution and architecture of today's computer, and its impact on education, industry and individuals. Personal, social, industrial, and commercial applications of electronic devices and computer systems will be emphasized, including applications software, websites, telecommunications, and computer control.

## **Communications and Public Speaking** (Grades 7-12) **½ Credit**

This course is intended for the professionally oriented student who requires specific training and competence in public address. It entails considerable hands-on exposure to business and professional speaking from a variety of perspectives. The course will also address analysis, interpretation, and oral reading of prose and verse to give students techniques and creative skills in oral interpretation. The course will provide individual attention and practice in the basic elements of voice and diction such as breath control, phonation, resonance, articulation, and pronunciation.

## **STEM Challenges** (Grades 11-12) **½ Credit**

This course is designed to allow students to explore and bolster problem solving abilities to provide opportunities for success. There will be specific real-world problems that are posed throughout the course to students that allow them to use mathematics as a powerful problem-solving tool.

This course is inquiry-based and practical. Students are exposed to the several concepts and processes of STEM-based topics. Several lessons will focus on the basics challenges and more advanced design concepts. They will conduct experiments, explore and make their own discoveries based on specific criteria. Activities will include a hands-on experience on how professionals conduct research and make discoveries.

## Health Sciences

**Food Science** (Grades 9-12) **½ Credit**

This is a course in the area of Health Science designed to reinforce and enhance the student's knowledge of principles and processes in the area of food and food processing. An in-depth understanding of science as it applies to food, as well as food processing and food careers. Students will be involved in hands-on laboratory activities which verify the scientific concepts. The class will provide the historical and scientific developments of foods and related processes in a global society. Several units will provide opportunities for students to apply communication, leadership, management, and thinking skills to the study of Food Science.

**Health Careers** (Grades 9-12) **½ Credit**

This course is designed to create an awareness of career possibilities in health care and inform students of the educational options available for health science and health technology programs. Units include beginning anatomy and physiology, medical terminology, medical ethics, diseases, disorders and other areas. The course prepares students for health careers and/or for a variety of health technology programs.

**Introduction to Health Sciences** (Grades 9-12) **½ Credit**

This course is designed to create an awareness of career possibilities in health care and inform students of the educational options available for health science and health technology programs. Units include beginning anatomy and physiology, medical terminology, medical ethics, diseases, disorders and other areas. The course prepares students for health careers and/or for a variety of health technology programs.

**Nutrition and Food Preparation** (Grades 9-12) **½ Credit**

This course provides students with knowledge and skills about food preparation and/or production, with a strong emphasis on nutrition, balanced diets, and satisfying special dietary needs. Topics typically include assessing nutrient content, the science of food and nutrition, physiology and utilization of nutrients. Course content may also cover additives, contaminants, foodborne illnesses, and food technology.

## Applied Science

**Broadcast Communications** (Grades 9-12) **½ Credit**

This is the study of broadcast communications and will provide students with the knowledge and skills to produce radio/television broadcast programs. Typically, students prepare and produce short programs using electronic communication systems. The basic principles of communication, the functions of major components in a complete system, and career opportunities in the field will be investigated.

## **Intro to Applied Science** (Grades 9-12) ½ Credit

This course is ideal for any students interested in exploring the possibility of studying applied science and technologies along with traditional engineering fields. It emphasizes strategies in design and is structured to establish skills in areas such as energy, electronics, robotics, the use of new technologies, while investigating diverse problems in the field of engineering. It will expose students to various content in engineering disciplines through hands-on laboratory experiences. In addition, the course will provide content in engineering ethics, leadership and teamwork.

## **Media Production Technology** (Grades 9-12) ½ Credit

This is a course in the area of Applied Science providing students with a study of modern media production tools. Students will understand the evaluation, appreciation and production of media-assisted presentations. Video, audio and stage production concepts are introduced. Modern Electronic and graphic communication systems are explored through a variety of hands-on learning activities. Exposure and experience with electronic media production tools and processes are gained through collaborative projects. Students will develop proposals and presentations to demonstrate knowledge of course content.

## **Video Production** (Grades 9-12) ½ Credit

This entry-level video production course is designed to provide students with the skills necessary to operate in a 21st Century television and video environment. Using a networked digital editing lab, featuring editing software, computer graphics, and animation, students will create, produce, and edit original public service announcements, music videos, and short documentary productions. Upon completion of this course, students will have a basic knowledge of production and editing.

## **Advanced Video Prod** (Grades 10-12) ½ Credit

This upper-level video production course is designed to provide students with the opportunities to edit video for short films, commercials , etc.... Students may be introduced to camera equipment. Students will have an opportunity to use software and devices for several hands-on applications.

## Computer Science

**Digital Electronics** (Grades 9-12) **½ Credit**

A unit study of binary logic, decision-making, logic gates and combinational logic circuits, digital signals, number systems, gate symbols, and truth tables necessary for the complete understanding of digital circuits and systems found in the home and commercial electronic equipment. This course teaches students how to use applied logic in the development of electronic circuits and devices. Students may use computer simulation software to design and test digital circuitry prior to the actual construction of circuits and devices. Logic systems, sequential logic circuits, and logic systems applications are included.

**Introduction to Programming** (Grades 9-12) **½ Credit**

This course provides an introduction to programming and programming languages. Students will gain fundamental knowledge of programming language principles and functional procedures in the field of computer science. Students may be introduced to Arduino and the structure of basic programming language. Students will have an opportunity to use publications, Internet, and hands-on applications.

**Introduction to Robotics** (Grades 9-12) **½ Credit**

This course will involve students in the development, building and programming of robots. Students will work hands-on in teams to design, build, program and document their progress. Topics may include motor control, gear ratios, torque, friction, sensors, timing, program loops, logic gates, decision-making, timing sequences, propulsion systems and binary number systems. Student designed robots will be programmed to compete in various courses. This course also prepares the student to understand automated manufacturing through the fundamentals of robotics. The student will learn classifications, basic nomenclature, setup, programming, maintaining, and diagnosing the various robots used in the field of advanced manufacturing.

## Environmental Science

**Ecology** (Grades 11-12) **½ Credit**

Ecology is the study of the relationship between organisms and their habitats. A major idea is the way that matter and energy flow through the food webs of various types of ecosystems. We examine population dynamics and spend time manipulating different types of population models. We also discuss ways that ecosystems change over time, including evolution and different types of succession.

**Introduction to Environmental Science** (Grades 9-12) **½ Credit**

This course will introduce the field of environmental science and show how an understanding of the natural world around us and the application of scientific method can help us to address the problems facing our planet. Our specific objectives are to: Introduce a variety of environmental problems, and solutions, in a scientific context. Enable students to understand environmental issues using a scientific approach.

# CAREER AND TECHNICAL EDUCATION

- BUSINESS AND MARKETING EDUCATION
- FAMILY AND CONSUMER SCIENCES ED
- TECHNOLOGY & ENGINEERING EDUCATION

## Business and Marketing Education

**Career and Financial Management** (Grade 9-12) **½ Credit**

This course is designed to help students make a smooth transition from the classroom to a meaningful career. It helps students understand the economic system and their role as a productive worker and citizen of the United States. Students learn about business organizational structure and entrepreneurship. Topics include business economics, consumerism, financial management, business management and leadership. Students will be introduced to careers in business law, marketing, accounting and business management.

**Youth Leadership** (Grade 9-12) **½ Credit**

This course is designed to promote civic and personal responsibility, as well as assertive leadership, through activities that give the students the opportunity to apply and refine those skills. Practical experiences are offered in public speaking, communication skills, group dynamics, organizational skills, time management, social/community involvement, leadership styles decision-making, and committee management. Activities include professional meetings, service to social/civic groups, and school projects that require responsible planning, organization and management. Students will develop leadership skills that will last a lifetime and prepare them for college and careers.

**Business Mathematics and Personal Finance** (Grade 9-12) **1 credit**

In this course, students will learn to apply mathematical techniques to a wide range of business and personal finance problems, including applications of simple interest, compound interest and annuities and the mathematics of merchandising. Students will learn to become financially literate adults and understand how interest works when they have their money in a savings account, when they purchase a car, take on a mortgage, save for retirement, and many other financial transactions. Students will learn to use a financial calculator to solve compound interest and annuity problems, a skill that will come in handy in their lives when making financial decisions. In addition this course is good for students who are considering a career in business.

# FAMILY & CONSUMER SCIENCES

The Family & Consumer Sciences department aims to provide students with basic information about food and nutrition, personal development and family living, management of family resources, housing and the environment. Emphasis is placed on the development of skills and understanding which contribute to a satisfying personal and family life.

## Advanced Life Skills (Health) (Grade 10) ½ Credit

The Advanced Life Skills course offered at Tuxedo High School is designed to enhance the awareness and knowledge of healthy lifestyle choices. The course will examine all aspects of wellness and quality of life while reinforcing the student's ability to advocate and make healthy choices for their overall health. In addition to the focus on individual wellness and health, the student will be challenged to practice healthy lifestyle choice and understand how those choices affect their families, community, and society. This is a full year course which fulfills the NYS high school graduation requirement for health and parenting education.

## Critical Issues in Health (Grades 10–12) ½ Credit

This course will provide students with decision-making skills and experiences related to critical issues in health. In addition, the course will cover health-related careers and community resources. Topics covered in the class include: violence and bully prevention; stress management; teen depression and suicide prevention; values clarification; HIV/AIDS education; alcohol, tobacco and other drugs; sexual orientation; disease prevention; parenting; healthy relationships; and sexuality. Guest speakers and field trips will be incorporated in the curriculum throughout the year.

**Additional Course Descriptions (for FACS) listed under Health Pathways on page:60**

- Food Science
- Health Careers
- Intro to Health Science
- Nutrition and Food Preparation

# TECHNOLOGY & ENGINEERING EDUCATION

*Technology is the use of various resources that help us improve our way of life.*

*Engineering is to create/modify using design techniques or methods which arrange and manage efficiency.*

Technology & Engineering Education will emphasize the following:

- Understanding technology and the resources applied
- Technological systems which people use to solve problems.
- The impacts of these systems on humans and on the environment.
- Human responsibility in the development and control of technology.

Technology Education courses have been designed to meet the needs of students at all academic levels and are taught through highly motivational laboratories and tactile learning activities. These programs use real world instructional activities, which incorporate concepts of math and science. All courses are recommended for all students wishing to pursue technical interest and/or careers.

***Courses offered are foundation or systems electives.***

*Students entering into the Technology Education program will be taking a foundation course, systems course and/or electives with a grade of B or higher can be used toward a math or science sequence. In addition a five year Technology sequence can be used to meet graduation requirements.

**Foundation Courses** – are courses designed around specific criteria that will provide students with skill experiences that will comprise a base of knowledge that can be applied to designing broad areas of technological subsystems. Previously some of these courses were titled: electricity/electronics, material processing, energy and power, or technical drawing.

**System Courses** – are courses that help students understand the universal aspects of all systems and apply problem-solving techniques in their search for solutions to technological problems. These universal aspects have typically been taught in the context of construction production or transportation systems courses.

## Technology Education Course Descriptions

* - will satisfy the one credit art requirement

** - can be used to fulfill a science credit to meet graduation requirements

*** - can be used to fulfill a math credit to meet graduation requirements

## Foundation Courses

- Design and Drawing for production (1 unit)* ***
- Electronics (1 or 1/2 unit) **
- Energy (1/2 unit) **
- Graphic Communications (1/2 unit)

## Systems Courses

- Transportation Systems (1/2 unit)
- Production Systems and Tech Processes (1/2 unit)
- CNC Machining Processes
- Material Processing

## Technology Electives

### *Communication Design*

- Introduction to Applied Science
- Fundamentals of Web Design (1/2 or 1 unit)
- Independent Study (Technology/STEM) (1/2 or 1 unit)
- Engineering Design
- Introduction to Engineering (1/2 or 1 unit)
- Principles of Engineering (1/2 or 1 unit)
- Aerospace (1/2 unit) **
- Introduction to Robotics
- Intro CNC Manufacturing and Blueprint Reading
- CNC Milling and Programming
- Introduction to Architecture (1 unit)
- Advanced Architecture (Building Layout and Land Development) (1 unit)
- Advanced Architecture (Site Planning and 3D Modeling) (1 unit)

### 5 Unit Sequence in CTE

for a Regents Diploma with Advanced Designation

**Commissioner's Regulations 100.5 (b)(7)(v)**

- Students completing a five-unit sequence in career and technical education are not required to complete the additional two units of the language other than English (LOTE) requirement for the Regents diploma with advanced designation but must still meet the requirements for the total number of units of credit to graduate.

## Foundation Courses

### **Design & Drawing for Production** (Grades 9-12) — 1 Credit

This course is an introductory mechanical drawing course, which satisfies the art graduation requirement. This course emphasizes visual problem solving, sketching, and using a common graph language to describe form in the real work environment. The topics will help you apply math skills toward practical applications. A number of technical drawing areas will be covered, such as orthographic projection, sectional, auxiliary and working drawings. These areas are used to present this course the way engineers and architects solve their design problems and communicate their solutions – first, with student analysis and creative thinking to solve problems and second, to communicate the design with your drafting skills. In addition to manual drafting, students will be able to express their skills through CAD. (Autodesk Design Academy) and other computer software will become a main focus of the course. This will give students the opportunity to experience the Design Industry in computer Aided Drafting.

### **Electronics** (Grades 9-12) — 1 Credit

If you are interested in Electronic Kit building and studying about the ever-changing world of electronics, this course is for you. Stereo equipment and speaker cabinet construction are presented along with uses of measuring and testing equipment. Electronic Experimenter is used to understand the basis of electronics. Selected topics presented are: kit building and fabrication/enclosures (about 5 per year): experimentation with measuring instruments and testing equipment: demonstration of electronic products, their function and operation. Students will also use computer software (Multisim and other CAD software) to express their ideas: with time permitting some introduction of digital electronics and careers in electronics.

### **Energy** (Grades 9-12) — ½ Credit

This course is designed for all students interested in learning how man uses various types of power/energy to do work. The class will cover energy conservation and the efficiency of numerous mechanical devices. Students will also student electric motors; steam, diesel and gasoline-powered engines. Alternative energy sources such as solar and earth generated wind power. They are explored through written work, activities and product modules.

### **Graphic Communications** (Grades 9-12) — ½ Credit

Graphic Communications helps students understand graphic representation and explore the careers in the printing, publishing, and packaging industries. The course pair's screening and advertising experience with general publishing and packaging ideas providing students with a broad understanding of graphic processes.

## Systems Courses

**Production Systems and Tech Processes** (Grades 9-12) **½ Credit**

Topics to be covered: The course is divided into four units – Systems of Technology and The study of Technological systems, Communication systems (Technical drawing, CAD, Electronics/Electricity), Construction systems (Woodworking processes) and Manufacturing systems (Processes for product development).

**Transportation Systems** (Grades 9-12) **½ Credit**

This course is designed to provide students with a generic view of the way we transport people and goods across the world. Students will study modes of transportations, such as automobiles, trains, boats and planes. Knowledge will be gained through activities of design and maintenance of these different modes of transportation.

## Technology Electives

**Aerospace** (Grades 9-12) **½ Credit**

This course will discuss the history of aerospace and the exploration of aerodynamics. Areas of study include: coefficient of drag, vehicle navigation, propulsion systems, fundamentals of flight and aerospace careers and occupations. Students will learn how rockets are used in aerospace and will have the opportunity to design, build and launch their own rockets, rocket cards and let land vehicles. Note: This course is offered as a continuation from the Energy course.

**Design & Drawing II & III**
**Intro to Architecture** (Grades 10-12) **1 Credit**

This is a continuation of Design and Drawing with an Introduction to Architecture. It continues the mechanical and its application of architectural drawing. Units in sketching, perspectives, two and three view drawings provide a basis for this course. These skills are then applied to residential architecture.

**Advanced Architecture II** (Grades 11-12) **1 Credit**

**Building Layout and Land Development**- Work will be centered around a home developed from presented units. They will range from home styles, area/room planning, site planning and technical plans to foundation, floor construction framing and furnishing. Students will use various drafting techniques along with 3D CAD software (AutoCAD, 3D studio MAX and Chief Architect) to represent their ideas.

✓***Prerequisite:***

- DDP I or Art and teacher recommendation.

## Advanced Architecture III (Grade 12) — 1 Credit

**Site planning and 3D modeling**- This year in Architecture students will develop 3D modeling and explore contour map and Plot plan development. Work will be done through various drafting techniques CAD (Autodesk design Academy) will be used to represent their ideas.

## Fundamentals of Web Design (Grades 9-12) — 1 or ½ Credit

This course is an introduction to Web Design and will focus on the overall production processes surrounding web site design with particular emphasis on design elements involving layout, navigation, and interactivity. Students will learn Web Design terminology in preparation for higher education or jobs in the internet economy. Hands-on Web Design exercises will be taught using Adobe Illustrator, PhotoShop, Adobe Dreamweaver, Adobe Flash, and Adobe Premiere.

## Introduction to Design and Applied Sciences (Grades 9-12) — 1 Credit

This course is ideal for any students interested in exploring the possibility of studying applied science and technologies along with traditional engineering fields. It emphasizes strategies in design and is structured to establish skills in areas such as effective management, contemporary technical issues, deployment of new technologies, resolving ethical dilemmas, and diverse problems in the field of engineering. It will expose students to the engineering disciplines in various fields through hands-on laboratory experiences. In addition, the course will provide content in engineering ethics, leadership, and teamwork.

✓***Prerequisite:***

- Basic keyboarding & general computer knowledge are needed.

## Introduction to Engineering (Grades 9-12) — ½ Credit

The goal of Introduction to Engineering is to introduce students to the field of engineering and to familiarize them with engineering concepts and to reinforce their ability to solve problems in the real world. This course is a hands-on, laboratory-based class that will use tools, machines, equipment and instruments and include design activities, and hands-on projects and experiments that incorporate elements of mathematics, science, and show the relationship between technology and engineering to enhance general technological literacy.

****Intro CNC Manufacturing and Blueprint Reading** (Grades 9-12) **1 Credit**

This course will make connections and develop skills in manufacturing for production. Students will use and gain knowledge of mechanical/technical drawings as well as reading blueprints to create functional objects. These design ideas will be fabricated using knowledge of various tools and a HAAS mini mill. The student will be introduced to modern manufacturing techniques and job opportunities. The machining content will be balanced by an emphasis on skills that will enable students to be successful in school and in life. These skills will include time management, financial management, goal setting, learning strategies, career planning, and critical thinking strategies.

****Introduction to Robotics** (Grades 9-12) **½ Credit**

This course prepares the student to understand automated manufacturing through the fundamentals of robotics. The student will learn classifications, basic nomenclature, setup, programming, maintaining, and diagnosing the various robots used in the field of advanced manufacturing.

****CNC Machining Processes** (Grades 10-12) **1 Credit**

Students will explore the CNC machining procedures that include cutting, drilling, milling, and turning. Students will also use hand tools to prepare a semi-precision layout that will demonstrate their ability in job planning, bench work, and job layout. Students will reinforce their measurement and blueprint reading skills by producing precision parts on manual metalworking machines.

****CNC Milling and Programming** (Grades 10-12) **1 Credit**

Students will learn to program, set-up, and operate Computer Numerical Control (CNC) milling equipment. Students will receive instruction in machine motion, mill control panels, machine startup, and operations. Topics include programming formats, control functions, program editing, part production, and inspection. Students will manufacture simple parts using CNC milling equipment and will gain the experience of performing quality control inspections before, during, and after CNC operations.

**Materials Processing** (Grades 9-12) **½ Credit**

This course builds on the concepts and skills developed in Drawing and Design for Production. Students will use their knowledge of mechanical/technical drawing to create functional objects. These design ideas will be fabricated using knowledge of power tools and woodworking.

★ ***Please Note:*** *Recommended for upperclassmen students or freshmen with a strong interest in STEM education.*

## **Principles of Engineering** (Grade 10-12) ½ Credit

Building on prerequisite knowledge and skills gained in *Introduction to Engineering, Principles of Engineering (Case Studies)* explores how interesting and groundbreaking engineering challenges have been and are being analyzed and addressed. Areas of study may include auto safety, structural engineering, product design, machine automation and control, and energy, including solar powered home and car design.

✓***Prerequisite:***

- Introduction to Engineering

## ****Robotics in the workplace** (Grades 10-12) ½ Credit

This course, students will be competent in the application of essential skills necessary for automated manufacturing in a mass-production environment. Nearing completion of their program, students in this course will apply all of the skills and knowledge gained in the Introduction to Robotics course in a simulated workplace environment. Students will apply their skills in equipment operation, programming, diagnosing and troubleshooting, and machine setup by use of automation. By the end of the year students spend the majority of their time working in a simulated advanced manufacturing environment working with the integration of machinery and robotics technology.

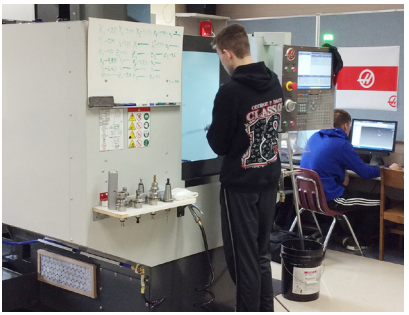
## **Independent Study (Topic TBD)** (Grades 11-12) 1 Credit

This course is an independent study in the area of STEM or Technology and will focus on Engineering and Communication aspects of that prospective field. Students will use various tools to design and express their ideas.

✓***Prerequisite:***

- Successful completion of a Technology Education course with a B or higher or permission from the teacher.

****** **Can be used as post secondary credit at Lincoln Technical Institute**



## Study Skills (Grades 7-12) — 0 Credits

The Resource Program is designed to offer students with a diagnosed learning problem individual and small group remedial skill development. Students who participate in the program have normal intelligence, but through professional diagnostic testing and teacher evaluation have been diagnosed with a learning problem.

The program gives students individual instruction in their areas of greatest difficulty. The curriculum guidelines are a hierarchy of specific basic skills necessary for successful performance in required coursework. Students are individually tested and an educational program is cooperatively designed by the student, resource teacher, parent, and other district personnel. The program also offers specific accommodations created to aid students in meeting course requirements.

**At Orange – Ulster BOCES (4 Credits per Year)**

The Orange Ulster BOCES Career and Technical Education Center programs are offered to high school juniors and seniors. They focus on preparing students with career-specific technical knowledge necessary to progress towards employment, career advancement, and success in post-secondary programs.

Students attend one-half day at the Career and Technical Education Center in Goshen and one-half day here at their home school in Tuxedo. Working with state-of-the-art equipment, students apply theory and knowledge to a wide range of real life work assignments in shops and laboratories.

## Appearance Careers Academy

### Cosmetology

Students gain daily practical experience working on other students and, after the second year, have the opportunity to provide services to patrons in a clinical setting at CTEC.

**Available Certification:** Upon successful completion of this course and the 1000 mandated hours, students are prepared to take the New York State Cosmetologist Licensing Examination. To meet the state-mandated 1000 clinical hours, students may need to attend the 2 week summer clinical session after their senior year.

### Esthetics

Students gain daily practical experience working on other students and have the opportunity to provide services to patrons in a clinical setting at CTEC.

**Available Certification:** Upon successful completion of the first year of this course, students are prepared to take the New York State Waxing Licensing Examination. Upon successful completion of this two-year course and the 600 mandated hours, students are prepared to take the New York State Esthetics Licensing Examination.

## Business Computers Careers Academy

### Basic Office Applications

Students will learn a variety of software packages including word processing, spreadsheets, desktop publishing, presentations, and will improve their typing speed and accuracy. Over the two years of the program students will be introduced to keyboarding and computer applications, interpersonal skills, job search and interview skills, office procedures, and communication skills.

### E-Business and Microsoft Applications

In this two-year course students will learn how business controls industry, human resources, finance, and marketing. Students will have the opportunity to take the Microsoft Office Specialist (MOS) Certification Exam, which will be paid for by CTEC. Students will also develop their own business plan and have the opportunity to work in the industry during the second half of the year.

**Available Certification:** Students completing the program are eligible to take the MOUS (Microsoft Office User Specialist) Certification exam.

## Construction Careers Academy

### Carpentry

Students begin in the Construction Careers Core of Instruction as it relates to their specific program of interest. Students develop the skills necessary for employment in the carpentry field. Throughout the program, students gain daily practical experience using tools, equipment and machines of the industry. Students also participate in several building projects.

**Available Certification:**

- NCCER Construction Core
- OSHA 10 Hour Safety
- NCCER Carpentry Level 1
- Your Role in the Green Environment

### Electrical Construction Technology

Students begin in the Construction Careers Core of Instruction as it relates to their specific program of interest. Students prepare for careers as an electrician. Throughout the program, students gain daily practical experience working on residential, commercial and industrial wiring.

**Available Certification:**

- NCCER Construction Core
- OSHA 10 Hour Safety
- NCCER Electrical Level 1

### HVAC/Plumbing

Students begin in the Construction Careers Core of Instruction as it relates to their specific program of interest. Students are taught the skills necessary for employment in the areas of plumbing, heating and related climate control systems. Throughout the program, students gain daily practical experience in all aspects of plumbing and heating. Students are provided with training related to Renewable Energy Sources such as Geothermal and Solar Heating Systems.

**Available Certification:**

- NCCER Construction Core
- OSHA 10 Hour Safety
- NCCER HVAC/Plumbing Level 1
- EPA 608 Certification

## Culinary Careers Academy

### Culinary Food Trades

This program uses the National Restaurant Association (NRA) ProStart curriculum. Students prepare for careers in the food and beverage industry and in the hotel and restaurant business. Throughout the program, students gain daily practical experience in the use of modern equipment and food preparation for commercial and institutional settings. Students will be prepared to take the ProStart written and practical exams.

## Education Careers Academy

### Early Childhood Development and Care

Throughout this program, students gain daily practical experience with preschool age children in an on-site nursery school facility. Students also prepare to be assistant teachers and aides in any classroom environment. Students should possess a sense of responsibility and desire to work with young children.

★ ***Please Note:*** *Within six months prior to working in the nursery, students must have a Tuberculosis skin test (PPD), Tetanus and MMR updates.*

**Available Certification:**

- First Aid – 1st Year (Infant, Child and Adult)
- CPR – 2nd Year (Infant, Child and Adult)
- AED – 2nd Year
- Child Development Associate Credential (CDA)
- Mandated Reporter Certificate

### Education and Management

Throughout this program, students gain daily practical experience in an on-site, Pre-Kindergarten program. Students also gain teaching experience in various elementary grades and/or special needs classrooms. Students should possess a sense of responsibility and desire to work with young children.

★ ***Please Note:*** *Within six months prior to working in the nursery, students must have a Tuberculosis skin test (PPD), Tetanus and MMR updates.*

**Available Certification:**

- First Aid – 1st Year (Infant, Child and Adult)
- CPR – 2nd Year (Infant, Child and Adult)
- AED – 2nd Year
- Child Development Associate Credential (CDA)
- Mandated Reporter Certificate

## Engineering STEM Careers Academy

### Computer Assisted Design

Computer Assisted Design (CAD) is a one or two-year program. CAD students will gain advanced knowledge in the fields of Architecture and Engineering. This program prepares students for successful entry into post-secondary engineering programs, architecture programs and employment. Students will use the latest versions of AutoDesk software, which is an industry standard, to design plans and drawings related to architecture and engineering. The software used in class includes AutoCAD, Inventor, and REVIT. Students will also apply professional design and problem solving techniques to real world problems and situations. Students will then use prototyping and modeling techniques to bring their solutions into reality for analysis and demonstration. The Computer Assisted Design curriculum is based on Project Lead The Way curriculum, and is vastly expanded upon.

★ ***Please Note:*** *This curriculum offers up to 8 college credits from Rochester Institute of Technology (RIT) based on a qualifying exam grade and course average. The tuition charge to receive credit from RIT is $200.*

### Computer Networking (Cisco CCNA Routing and Switching)

Networking is a high growth field. The Cisco CCNA Routing and Switching curriculum is designed for students who are seeking entry-level Information and Communication Technology (ICT) jobs or plan to pursue more specialized ICT skills. This course provides comprehensive coverage of networking topics, from fundamentals to advanced applications and services.

### Computer Programming

Students will become familiar with various computer applications and programming languages while developing troubleshooting techniques. This program prepares students to become a part of this rapidly expanding field and to enter higher education. Students may participate in an internship or clinical experience during their final semester.

**Available Certification:**

- ► Upon completion of the program, students may be eligible to take certification exams through Microsoft and/or Oracle.

### Computer Technician

The Computer Technician program teaches students how to build a computer and troubleshoot problems that occur in homes and small-to-medium businesses. Concepts will be reinforced with hands-on exercises such as software installation, computer configuration, upgrading and assembling.

## Environmental Careers Academy

### Greenhouse and Floral Technology (One year program)

This program offers instruction in each of the following areas:

- Design of Center pieces, Corsages, and Interior Design Pieces
- Florist and Greenhouse Management to include Cost and Pricing Procedures
- Sustainable Gardening and Pruning
- Plant identification to include Tropical, Floral, Annuals, and Perennials
- Botany and Plant Science
- Propagation by Hydroponics

**Available Certification:**

- ► OSHA 10 Hour Safety

## Heavy Equipment

Students are prepared for employment opportunities in maintenance, operation and repair of equipment used in the construction industry. Instruction includes preventive maintenance, diagnostic service, overhaul and repair operations. Throughout the program, students gain daily practical experience working with a variety of engines and equipment. Students will also have the opportunity to experience the Interactive Excavator Simulator.

**Available Certification:**

- NCCER Construction Core
- OSHA 10 Hour Safety
- NCCER Heavy Equipment Operations Level 1
- OSHA Forklift Training and License

## Landscape Design Technology (One year program)

The Landscape Design Technology program offers instruction in each of the following areas:

- Design in the areas of Lawn, Industrial, Residential Property and Flower Garden
- Property/Site Analysis including Drawing Techniques, Plant Identification and Cost estimating, Foundation Planting, Water Gardening and Pruning
- Botany and Plant Science
- Propagation by Hydroponics

**Available Certification:**

- OSHA 10 Hour Safety

## Outdoor Power Equipment and Landscape Operations

This program offers instruction in each of the following areas:

- Machine operation and maintenance to include Turf Machines, Loaders, Backhoe, and Forklifts
- Management in the areas of Greenhouse, Parks and Recreational Facilities, Water/Soil Conservation, Golf Course and Turf and Sports Fields
- Site Analysis/Evaluation
- Small Business Ownership
- Botany
- Plant and Wildlife Identification
- Pruning

**Available Certification:**

- OSHA 10 Hour Safety

## Welding

Students learn contemporary metal joining, cutting and reinforcing processes used in manufacturing and fabricating. They work with high-strength steel, aluminum, and cast iron as well as other metals and their alloys. Throughout the program, students gain daily practical experience in all welding and cutting processes.

**Available Certification:**

- NCCER Construction Core
- OSHA 10 Hour Safety
- NCCER Welding Level 1
- NCCER Welding Level 2

# Health Careers Academy

## Principles of Health Occupations

This program is taken during the student's junior year. Students begin by studying the core competencies that are relevant to many health occupations. Having mastered the core competencies, students progress to an advanced level in the second year to develop competencies specific to selected occupational areas. The students will also be given an opportunity to explore various health care fields.

Integrated throughout the two years of instruction are theoretical concepts, skills and attitudes that help the student to become successful in gaining employment and/or continuing their education.

Students completing Principles of Health Occupations may choose to enter Allied Health Assistant, Nurse Assistant, or Pharmacy Technician their second year if they:

- Received a 65% average in this course for the Nurse Assistant program
- Received a 75% average in this course for the Allied Health or Pharmacy programs

## Allied Health Assistant

The Allied Health Assistant program provides students an opportunity to obtain various hands-on training and education which makes them capable of filling a diverse range of duties in the healthcare industry.

**Available Certification:**

► Upon successful completion of the program, the student is able to take the nationally recognized Certified Clinical Medical Assistant Exam.

## Nurse Assistant

The Nurse Assistant program provides an opportunity for the student to obtain multiple clinical skills along with sound theory base in nursing science. Students will have the opportunity to provide direct patient care at the bedside at an extended care facility.

**Available Certification:**

► Upon successful completion of the program, students may sit for the New York State Certification Exam for Nurse Assistant.

## Personal Trainer Assistant

Personal training is becoming one of the fastest growing occupations in the health and fitness industry. Both theory and hands-on experience are included in this program. Upon completion of this two-year program, graduates can take a position within a fitness club or enter college in fields such as physical therapy, physical education, and athletic training.

**Available Certification:**

- Upon successful completion of the program, the student is able to take the National Council on Strength and Fitness certification (NCSF).

## Pharmacy Technician

Pharmacy Technicians play an integral role in today's medical field. They are the public-facing members of a pharmacy's staff who work as the liaisons between patients and pharmacists, and doctors and insurance companies. Pharmacy technicians assist pharmacists in providing effective, appropriate, and safe pharmacy services. They primarily assist in providing medications and other health care products to patients. Patients and pharmacists alike rely on pharmacy techs to help keep the pharmacy running smoothly and efficiently by performing many pharmacy-related tasks.

**Available Certification:**

- Upon successful completion of the program, the student is able to take the Certified Pharmacy Technician Exam.

## Security Careers Academy

### Fire Science (One year program)

This program follows the New York State Office of Fire Prevention and Control Curriculum:

- Firefighter I
- Confined Space Safety
- Defense Against Weapons of Mass Destruction Awareness
- Hazardous Materials Operations
- Scene Support Operations

**Available Certification:**

- Firefighter I
- American Heart Association CPR, First Aid, and AED
- NECC Certified Level 1 Telecommunicator (911 Certification)
- NYS Emergency Management Office Certification: Incident Command System (ICS-100)

### Law Enforcement

Students prepare for employment with the County, State and Federal government, private security, military careers and law enforcement agencies or for further education in criminal justice. For most employment in this field, a student must be bondable and pass a fingerprint investigation.

**Available Certification:**

- Bicycle Safety
- American Heart Association CPR, First Aid, and AED
- Firearms Safety Certification
- NECC Certified Level 1 Telecommunicator (911 Certification)
- NYS Archery Safety
- NYS Emergency Management Office Certification: Incident Command System (ICS-100)
- NYS Hunter Safety
- NYS 8-Hour and 16-Hour Security Officer Certification
- NYS 8-Hour Annual I-service Security Officer Training

## Transportation Careers Academy

Automotive instructors are ASE (Automotive Service Excellence) Certified in their areas of instruction.

### Automotive Technology

Students learn to repair foreign and domestic cars and light trucks using the latest techniques and computerized diagnostic equipment. Throughout the two-year National Automotive Technicians Education Foundation (NATEF) certified program, students gain daily practical experience working on vehicles provided by CTEC and the students. Selected students may be eligible for clinical experience at local repair facilities.

**Available Certification:**

- Eligible students may use successful course completion toward Automotive Service Excellence (ASE) certification.

### Aviation

Aviation is a two-year program in collaboration with Take Flight Aviation at Orange County Airport in Montgomery, NY, with a full-time flight instructor that emphasizes operation of single-engine airplanes. This program provides students with basic knowledge of the equipment used in Aviation to prepare them to qualify for their Federal Aviation Administration (FAA) Private Pilot's License. Students use flight simulators to help enhance flight time experience (minimum of 40 hours required for license).

★ ***Please Note:*** *First year students must pass medical and drug tests and have passed a math regents exam. Second year students also must pass medical and drug tests.*

**Available Certification:**

- Upon successful completion of the program, the student is eligible to take the Private Pilot's Exam to obtain their license.

### Collision Repair Technology

Students in the Collision Repair Technology program are prepared for careers in the field through the use of the latest technologies and state of the art equipment. Throughout the program, students gain daily practical experience by working on vehicles. Selected students may be eligible for clinical and internship experiences at local repair facilities.

**Available Certification:**

- Successful completion of the two- year Collision Repair Technology program can reduce the two years of experience required for Automotive Service Excellence (ASE) certification by one year.

### General Service Technician (G.S.T.)

Students completing this program will have the essential knowledge and skills required for fundamental service and maintenance tasks. They will be exposed to a wide range of automotive areas. Throughout the rigorous two-year National Automotive Technicians Education Foundation (NATEF) certified program, students gain daily practical experience working on vehicles provided by CTEC and the students. Selected students may be eligible for clinical experience at local repair facilities.

**Available Certification:**

- Eligible students may use successful course completion toward Automotive Service Excellence (ASE) certification.

### General Service Technician (G.S.T.) / Vehicle Maintenance

This program provides hands-on training for skills needed for entry level employment in the automotive service industry. Basic automotive skills are practiced in the shop and are reinforced through off-site clinical experiences at automotive dealerships and repair shops. (Students participate in a variety of positions at local community work sites.)

After completing one year of the Vehicle Maintenance program, students have the option of entering Automotive Technology, Collision Repair Technology, or Heavy Equipment during their second year at CTEC. Students requiring additional time to develop the skills needed to transition to the workplace may attend Vehicle Maintenance for a second year with approval from their instructor and guidance counselor.

**Available Certification:**

- Eligible students may use successful course completion toward Automotive Service Excellence (ASE) certification.

## Visual Arts Careers Academy

### Digital Design and Advertising

This program gives students a broad foundation in all facets of digital media design. A strong emphasis is placed on new media, including animation, computer graphics, website and app design, video game design, and digital photography. It is a two-year program that will provide graduates with the skills and knowledge needed for a variety of design positions. During the program, students develop a traditional design portfolio as well as an animated online portfolio of their work. The portfolios can be used to qualify for entry-level design careers or for college-level education at renowned design schools.

**Available Certification:**

- Adobe Certified Associate (ACA) Certification

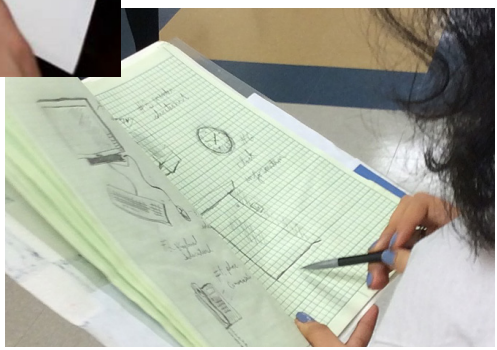
## Digital Filmmaking and Post Production

The Digital Filmmaking and Post Production program provides students with opportunities to explore the exciting and expanding world of visual communication by being part of the produc-tion process in roles including writer, director, editor, grip, and production assistant. Over the two years, students are introduced to communications media, currently creating programs with equipment including Sony's tapeless HXR-NX5U camera and Apple iMac computers running Final Cut Studio and Adobe Creative Suite software.

Students learn to work collaboratively, forming film crews and filling production positions on a rotational basis. The craft of writing, directing, and editing is taught to each student, as well as a solid foundation in employable basics including the naming and use of professional grip equip-ment. Writing skill is important, as is an ability to work well with others.

## Fashion and Interior Design

The world of fashion and interior design offers challenging, exciting, and financially rewarding career opportunities. Explore and develop the skills needed to enter into these exciting career fields. This program combines design theory with hands-on projects. A variety of topics and assignments are incorporated into the curriculum to give students a solid foundation and broad overview of both industries. During the two-year program, students will create a portfolio by building upon the basics of design, illustration, textiles, computer graphics, and merchandising.



## College Visitations

Important steps to be followed before choosing a college involve conferences with the guidance counselor, a study of college catalogs, and talking to college representatives, parents and college alumni.

It is vital however, to get firsthand information on the colleges by visiting the college campuses. Your reaction to the physical setting, facilities, students' attitudes and the general atmosphere of the college can assist in making a wise college decision.

College visitations should ideally be made in the spring of the junior year or in the fall of the senior year when classes are in session.

A well planned college visit should include the following:

1. Follow the high school policy on college visitations as given in the Student Handbook.
2. Telephone the admissions office for an appointment to visit. Some colleges do not require personal interviews, yet a meeting gives you an opportunity to get information not given in a catalog. In some cases, a good interview can assist in gaining admission to a college.
3. Obtain an unofficial copy of your high school transcript from the guidance office. This report will include your high school grades, the results of college exams and the courses being taken in the senior year.
4. Prepare a sheet which will include the following information:
    a. Significant extra-curricular school and community activities pursued since grade nine, noting any leadership positions held
    b. Special interests and the time devoted to them
    c. High school work experience
    d. Honors or awards received in either the school or community.
5. Students must bring back official proof of visitation for school absence to be excused.

The college admissions officer, after reviewing all of this data, can usually advise you whether it is feasible for you to apply to the college.

## College Planning

Students who are considering college probably have the most difficult choice. How does one choose from the over 3,000 colleges in the United States? The first step in effective college decision making is self-examination. In addition to the questions common to most career decision making situations students must also consider the following:

...Do I want a two or four year college?

...Does a school's size matter?

...What are the schools that meet my academic profile (grades, performance in relationship to peers, standardized scores, etc.)?

...What sports or extracurricular activities do I desire?

...How important is the cost and the availability of financial aid?

...How important is location?

...Is an attractive campus a consideration?

These are questions to be considered when exploring possible college choices.

## College Glossary

**Early Action** – the type of admissions program that grants a student who has applied to college in the early autumn notification by December. There is, however, no obligation for a student to attend that college.

**Early Admission** – this admissions program permits an exceptionally gifted student to enter college after the completion of the junior year in high school, usually without a high school diploma.

**Early Decision** – this admissions program is similar to Early Action, because an admission decision is given in December. The program differs from Early Action because the student is obligated to attend the college.

**Rolling Admission** – under this program colleges make an admissions decision as soon as all of the required application materials have been received. It is wise to apply to such colleges before the freshman quota is met.

**Open Admission** – this policy admits all students who apply regardless or previous academic achievement. A high school diploma or equivalency examination is sometimes required. The community colleges in New York State operate under open admissions.

**Deferred Admission** – this program permits admitted students to postpone entrance into college for a year. Financial difficulty, a desire to travel or to participate in an exchange program are reasons for requesting deferment

**Candidate's Reply Date** – most colleges have designated May 1st as the date by which individuals who have been accepted have to notify them of their intent to enroll.

**Common Application** – to simplify the college admissions process over fifty colleges in the U.S. participate in the common application program. Students may complete this one application and send copies to any of the participating colleges in which they are interested.

**Core Curriculum** – a group of courses, in varied areas of the arts and sciences. Designated by a college as part of their requirements for a degree.

**Financial Aid Form (FAFSA)** – is an information form which requires detailed data about the family's circumstances – income, debts, responsibilities. In order to qualify for college financial aid, scholarships, grants, this form must be submitted to the College Scholarship Service, which evaluates student's financial need. It should be submitted no earlier than January 1st and not later than February 1st of the year a student plans to enter college.

**TOEFL** – Test of English as a Foreign Language. This exam is frequently required of foreign born students who have recently emigrated to the U.S. The test covers listening comprehension, structure and written expression, reading comprehension and vocabulary.

**Transcript** – this is an official record of our academic performance and includes all grades earned in credit bearing eight grade courses as well as all courses taken from grades nine through twelve. It also includes all standardized testing results and a record of our involvement in extracurricular activities.

**Profile** – a secondary financial aid form required by many private colleges and universities. Unlike the FAFSA, this form is not free. There is a fee to register for each school. The preliminary registration can be done by phone or online. This registration generates the actual PROFILE. The information requested on this form is more detailed and intrusive than on the FAFSA.

## Decision Making

One of our primary goals as guidance counselors is to assist students in making decisions, which often cover a variety of areas. Many of these decisions often are connected in some way to career preparation. We believe the choices students make from the time they enter school as kindergartners, through twelfth grade and beyond can affect their future.

Any decision, whether it involves choosing courses, trying out for a sport or selecting a college requires that people stop and evaluate themselves. The best decisions are made when we take the time to ask ourselves some important questions.
For example...

...What are my strengths?

...What are my likes, dislikes?

...Where have I met with success before?

...What makes me happy?

...What are my values?

...Where would I like to be and what would I like to be doing five years from now

As a result of all the experiences students have had in high school, decisions that have to be made as seniors should be less difficult. Basically, there are three general choices that can be made. There are to enter the workforce, join the military or attend college.

Students who are considering the military are urged to make an appointment with the various military recruiters that serve Orange County.

- U.S. Army 343-1006
- U.S. Navy 343-1025
- U.S. Marines 343-4912
- U.S. Air Force 343-8875

Students who plan to enter the workforce should be sure that they avail themselves of all local employment resources. The New York State Department of Labor Job Service is an excellent resource – *www.labor.state.ny.us*.

# NEW YORK STATE LEARNING STANDARDS

## Health, Physical Education, and Family and Consumer Sciences

**Standard 1: Personal Health and Fitness**
Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

**Standard 2: A Safe and Healthy Environment**
Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.

**Standard 3: Resource Management**
Students will understand and be able to manage their personal and community resources.

## Mathematics, Science, and Technology

**Standard 1: Analysis, Inquiry, and Design**
Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

**Standard 2: Information Systems**
Students will access, generate, process, and transfer information using appropriate technologies.

**Standard 3: Mathematics**
Students will understand the concepts of and become proficient with the skills of mathematics; communicate and reason mathematically; become problem solvers by using appropriate tools and strategies; through the integrated study of number sense and operations, algebra, geometry, measurement, and statistics and probability.

**Standard 4: Science**
Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

**Standard 5: Technology**
Students will apply technological knowledge and skills to design, construct, use, and evaluate products and systems to satisfy human and environmental needs.

**Standard 6: Interconnectedness: Common Themes**
Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

**Standard 7: Interdisciplinary Problem Solving**
Students will apply the knowledge and thinking skills of mathematics, science, and technology to address real-life problems and make informed decisions.

## English Language Arts

**Standard 1: Language for Information and Understanding**
Students will listen, speak, read, and write for information and understanding. As listeners and readers, students will collect data, facts, and ideas; discover relationships, concepts, and generalizations; and use knowledge generated from oral, written, and electronically produced texts. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to acquire, interpret, apply, and transmit information.

**Standard 2: Language for Literary Response and Expression**
Students will read and listen to oral, written, and electronically produced texts and performances from American and world literature; relate texts and performances to their own lives; and develop an understanding of the diverse social, historical, and cultural dimensions the texts and performances represent. As speakers and writers, students will use oral and written language that follows the accepted conventions of the English language for self-expression and artistic creation.

**Standard 3: Language for Critical Analysis and Evaluation**
Students will listen, speak, read, and write for critical analysis and evaluation. As listeners and readers, students will analyze experiences, ideas, information, and issues presented by others using a variety of established criteria. As speakers and writers, they will use oral and written language that follows the accepted conventions of the English language to present, from a variety of perspectives, their opinions and judgments on experiences, ideas, information and issues.

**Standard 4: Language for Social Interaction**
Students will listen, speak, read, and write for social interaction. Students will use oral and written language that follows the accepted conventions of the English language for effective social communication with a wide variety of people. As readers and listeners, they will use the social communications of others to enrich their understanding of people and their views.

## The Arts

**Standard 1: Creating, Performing, and Participating in the Arts**
Students will actively engage in the processes that constitute creation and performance in the arts (dance, music, theater, and visual arts) and participate in various roles in the arts.

**Standard 2: Knowing and Using Arts Materials and Resources**
Students will be knowledgeable about and make use of the materials and resources available for participation in the arts in various roles.

**Standard 3: Responding to and Analyzing Works of Art**
Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.

**Standard 4: Understanding the Cultural Contributions of the Arts**
Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.

## Career Development and Occupational Studies

**Standard 1: Career Development**
Students will be knowledgeable about the world of work, explore career options, and relate personal skills, aptitudes, and abilities to future career decisions.

**Standard 2: Integrated Learning**
Students will demonstrate how academic knowledge and skills are applied in the workplace and other settings.

**Standard 3a: Universal Foundation Skills**
Students will demonstrate mastery of the foundation skills and competencies essential for success in the workplace.

**Standard 3b: Career Majors**
Students who choose a career major will acquire the career specific technical knowledge/skills necessary to progress toward gainful employment, career advancement, and success in postsecondary programs.

## Languages Other Than English

**Standard 1: Communication Skills**
Students will be able to use a language other than English for communication.

**Standard 2: Cultural Understanding**
Students will develop cross-cultural skills and understandings.

## Social Studies

**Standard 1: History of the United States and New York**
Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

**Standard 2: World History**
Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

**Standard 3: Geography**
Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global— including the distribution of people, places, and environments over the Earth's surface.

**Standard 4: Economics**
Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and non-market mechanisms.

**Standard 5: Civics, Citizenship, and Government**
Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

# PROGRAM of STUDIES

2023-2024

TUXEDO UNION FREE SCHOOL DISTRICT