## Charter High School for Applied Technologies



Where Every Day is Career Day!

# Curriculum Handbook and Course Catalog 2024-2025

The Charter School for Applied Technologies prepares students to attain family-sustaining careers by integrating career exploration and a lifelong learning culture.

#### SECTION 1: STUDENT SERVICES AND INFORMATION

#### **Career & Counseling Center**

The Charter High School for Applied Technologies Career & Counseling Center works with the school community to help students maximize their high school experience. The primary function of the Career and Counseling department is to assist students in making the decisions, which affect their education, and to implement programs that will aid them in reaching their full potential at this school. It is the department's goal to provide students at all levels with appropriate academic advising, to supply them with the college and career information necessary for effective decision making, and to provide personal counseling as it relates to school performance. The Career and Counseling Center coordinates several programs available to all students and their parents, including support groups, parent-teacher conferences, career awareness programs, college applications and scholarship information, student orientations, academic counseling, and course scheduling.

#### PERSONAL/SOCIAL DEVELOPMENT

Adolescence can be an exciting time for new experiences. It can also be a time of stress and challenge(s) both at school and at home. CHSAT offers a variety of resources to help students during this unique period. School Counselors are available to meet with students on an individual basis. In addition, student support groups are offered focusing on a variety of issues/concerns such as self-esteem, anger management, stress management, study skills, and teen issues.

#### ACADEMIC COUNSELING

Counselors work with all students to write, review, and revise individual academic plans. Counselors are also available to discuss four-year plans, course selection, and post-secondary goals with students and parents. Parents can track student academic progress by reviewing mid-quarter progress reports and quarterly report cards with their child.

#### **CAREER GUIDANCE**

Selecting a college and career can be a confusing and exciting experience. The Career and Counseling Center assists students with college selection, career exploration, pre-college testing, admissions, financial aid, and scholarship information. In addition, the Career and Counseling Center provides a variety of references, electronic resources, and applications available to students, parents, and teachers.

#### **Counselor Contact Information**

We would be happy to discuss the curriculum, graduation requirements, etc. with you and your child if needed. Please feel free to contact us anytime!

#### **Counselor Assignments (by last name) and Extensions:**

Adam Janczyk (A-D) x3127 Kari Piazza (E-La) x3125

Hanan Saeed (Le-Ri) x3123 Dontee Sylvester (Ro-Z) x3117

Richard Diaz (School Social Worker) x3118

#### **School to Career Programming**

<u>Career Touches</u>: A career-oriented experience based primarily on alignment to curriculum that can be conducted on and/or off site. On site career touches involve guest professionals presenting career information to students through classroom visits, grade level/subject matter presentations and/or whole school assemblies. Off-site career touches engage students in visits to a wide variety of businesses. On these visits, students receive information and a brief exposure to all the different careers that exist at each individual business establishment. Career touches are appropriate for grades K-12. For grades K-6 career touches are encouraged to be designed as hands-on, interactive experiences that foster student thinking and questioning but with little to no lecture included. For grades 8-12 career touches are encouraged to be designed as hands-on, interactive experiences that include dialogue between presenters and students with some lecture/oral presentation by professionals.

Career Exploration: A career-oriented investigation and discovery based primarily on student interest that can be conducted on and/or off site. On site career explorations involve guest professionals presenting specific job information to select focus groups of students (approximately 10-15) where students can delve into and make connections to subject matter, skill level and individual interests. Off-site career explorations engage select focus groups of students (approximately 10-15) in specially designed visits to distinct places of work where they can delve into and make connections to subject matter, skill level and individual interests. Career explorations will expose students to thorough studies of specific careers that they have shown an interest in learning about in an effort to continually educate them so that they are empowered to make decisions concerning their future career choice(s). Career explorations are appropriate for grades 8-12.

<u>Job Shadows:</u> A career-focused, one-day visit to a specific job site that is based exclusively on student interest, individual skill and knowledge level. All job shadowing is done off site. Job shadowing involves either a select small group (no more than 4) and/or individual students being matched to a specific business professional for a thorough analysis of and participation in that individual's work. Students will follow that professional throughout their workday observing and dialoguing with them about the work they perform and what necessary skills, talents and knowledge are required to successfully fulfill their job responsibilities. Students may also engage in hands-on tasks and experiences related to that specific job while they are under the supervision and guidance of their supervisor. Job shadowing is appropriate for grades 9-11.

<u>Career Exploration Internship Program (CEIP):</u> The Career Exploration Internship Program (CEIP) assists students with understanding the linkages between school and work. Through CEIP students explore and learn about a variety of career options, through a non-paid worksite experience, in a career cluster of interest.

The CEIP partnership between education and business is only offered to Seniors, as a follow up to Career Touches & underclassmen Job Shadows, Career Exploration, etc. The CEIP offers an individual opportunity to learn, firsthand, about the skill and educational requirements necessary for career areas in which the students believe they are interested in pursuing. This, in turn, allows students to play an integral part in designing their own high school program and in choosing courses they should take to reach their career objective. Through this partnership, educators and employers alike realize the importance of providing relevant learning experiences and share the critical task of helping students develop self-direction and decision-making skills.

The program will be offered for a 0.5 credits of high school credit applicable towards graduation requirements.

Components of the program are:

- 1/2 credit 54 hours (work site) of non-paid internship
  - o 26 hours of in school supporting instruction
- Internship Weekly Journals Students must keep a weekly journal of onsite internship activities. The school must retain student journals for a period of 2 years.
- Internship Time Sheets Students must record and have mentors sign off on time sheets.
- Working papers are required.
- Transportation is the student/parent responsibility. CSAT will not provide transportation as part of the CEIP.

#### **Family Support Center**

Located at 317 Vulcan Street, Buffalo, NY 14207, the Family Support Center at CSAT has been created to strengthen its students and families through school, community and parent collaboration in order to promote student success and well-being. It has also become home to the Transportation and Enrollment Offices and for uniform purchases. Below is some information and frequently asked questions about the Family Support Center and its benefits:

**Services Provided:** The center's goal is to foster family communication and well-being, healthy youth development and success in school. In order to accomplish this, there is a spectrum of services available, including: Individual and family counseling, Support groups, Parenting groups, Referrals and information to outside community resources.

Who can participate? CSAT believes that strong families mean successful students, therefore any K-12 student and their family are not only welcome but encouraged to participate in the Family Support Center and the services it offers.

<u>Availability and Hours:</u> Hours are **Monday-Friday 7:30 AM-4 PM.** Appointments can also be made after-hours on Tuesday and on Saturdays.

<u>Cost:</u> Every aspect offered is free and confidential. The center is here to assist in a positive and cost-free environment to ensure the success of its clients.

#### **Working Papers**

Student working papers are issued during regular school hours every day through the High School Career and Counseling Center. Working paper applications are also online at <a href="https://www.labor.state.ny.us">www.labor.state.ny.us</a>.

#### Steps to acquiring working papers:

- 1. Obtain a working paper application from Ms. Kaznowski in the Career and Counseling Center OR online.
- 2. Part I needs to be filled out COMPLETELY and signed by a parent/guardian.
- 3. Obtain a copy of your child's last physical for Part III of the application. <u>The physical must state that the student is physically fit for employment and be within the last year.</u> If your child had a physical at school, our school nurse can verify the information.
- 4. Return the application and physical to Ms. Kaznowski in the Career and Counseling Center. We will complete Part IV (Schooling Record) and issue working papers to your child when they are completed.
- 5. Working papers usually take about 1 business day to be processed. We will distribute working papers (blue or green cards) to students as they are issued.

#### **College Visits**

For students to have the best chance of academic success, they must be in class as much as possible. Seniors who are interested in college are always encouraged to attend college open houses and make other visits to colleges they are considering attending. However, we strongly encourage students to try to schedule such visits on weekends or during breaks to miss as little instruction time as possible. Students planning to visit colleges must adhere to the following procedures for their school absence to be considered excused.

- 1. Students can miss only three days of school to make college visits.
- 2. A student making such a visit should have made a prior appointment at the college. He or she should not just arrive on campus and plan to look around, as this is something that could be accomplished on a weekend.
- 3. A student who is making a college visit must return to school the next day with a note on college stationery, from a college representative verifying that the student did have a meeting and/or tour scheduled.

#### **Information for Student Athletes**

The National Collegiate Athletic Association (NCAA), an organization founded in 1906 that has established rules on eligibility, recruiting, and financial aid, regulates many colleges athletic programs. The NCAA has three membership divisions—Division I, Division II, and Division III. Institutions are members of one or another division according to the size and scope of their athletic programs and whether they provide athletic scholarships. If a student plans to enroll in college as a freshman and you wish to participate in Division I or Division II athletics, they must be certified by the NCAA Initial-Eligibility Center. The Eligibility Center was established as a separate organization by the NCAA member institutions in January 1993. It ensures consistent interpretation of the NCAA initial-eligibility requirements for all prospective student athletes at all member institutions.

Contact our **Athletic Director**, Christopher Burzynski at (716) 871-7400 Ext: 4115

#### **Responsibility as a Prospective Student Athlete:**

• It is the student's responsibility to make sure the Eligibility Center has the documents it needs to certify them. These documents are: 1. Completed and signed Student Release Form and fee 2. An official transcript from every high school they have attended 3. ACT or SAT scores.

#### When to Start the Process:

• Students who wish to participate in Division I or Division II athletics should plan to start the certification process early—usually at the beginning of the junior year in high school. They must meet certain course requirements including successfully completing a core curriculum of at least 13 academic courses in the following categories: English, Mathematics, Social Studies, and Science. A student must also meet minimum requirements for GPA and SAT, ACT test score(s). Students should obtain a copy of the NCAA Guide for the College Bound Student-Athlete in the Career and Counseling Center.

### SECTION 2: GRADUATION REQUIREMENTS AND GRADING

Both the New York State Board of Regents and the local Board of Education of the Charter School for Applied Technologies may issue diplomas to students who complete specific courses of study. Parents and students are urged to carefully read the information on the tables below and to become thoroughly familiar with what is required for a student to receive his/her diploma. **Students are reminded that requirements for a diploma apply to students depending upon the year in which they first enter ninth grade**. A student who takes more than four years to earn a diploma is subject to the requirements that apply to the year that the student first entered ninth grade.

#### NEW YORK STATE GRADUATION REQUIREMENTS FOR STUDENTS ENTERING GRADE 9 IN SEPTEMBER 2011 AND THEREAFTER REGENTS DIPLOMA OR WITH ADVANCED DESIGNATION

Required Subjects	Units (credits)	Required Exams	Required Subjects	Units (credits)	Required Exams
English	4	Regents ELA	English	4	Regents ELA
Social Studies	4	Regents US History AND Regents Global History ++	Social Studies	4	Regents US History AND Regents Global History ++
Mathematics	3	1 Sequential Math Regents Exam	Mathematics	3	Regents Algebra 1, Geometry, and Algebra 2/Trigonometry
Science	3	1 Science Regents Exam	Science	3	1 Regents, Life Science, 1 Regents, Physical Science
Health	0.5	None	Health	0.5	None
Fine Arts	1	None	Fine Arts	1	None
World Language	1	None	World Language	1*	Checkpoint B Regional Exam*
Physical Education (0.5 unit each year)	2	None	Physical Education (0.5 unit each year)	2	None
Electives	3.5	None	Electives	3.5	None
TOTAL	22	5 Exams	TOTAL	22	8 + World Language Checkpoint B Exam

<sup>\*</sup>Five credits of art, music, business or technical education can be used in place of World Languages for the Advanced Regents Designation

- ++ <u>4 + 1 Graduation Pathway Assessment Options:</u> All students must pass the following 4 required Regents exams or the corresponding Department approved alternative examination found at <a href="http://www.p12.nysed.gov/assessment/hsgen/archive/list.pdf">http://www.p12.nysed.gov/assessment/hsgen/archive/list.pdf</a>: 1 Mathematics Regents exam, 1 Science Regents exam, 1 Social Studies Regents exam, and the English Language Arts Regents exam. In addition, all students must choose 1 of the following assessments:
  - Additional Mathematics Regents exam in a different course; or
  - Additional Science Regents exam in a different course; or
  - Additional Social Studies Regents exam in a different course

#### **NEW YORK STATE DIPLOMA OPTIONS**

DIPLOMA TYPE	AVAILABLE TO	LINK TO FULL INFORMATION
Regents*	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regentsdiploma
Regents with Advanced Designation*	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regentsAD
Mastery in Science	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regentsAD
Mastery in Math	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regentsAD
Mastery in Science and Math	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#diplomaHonors
Regents Diploma (through appeal)	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regpasscore
Local Diploma (through appeal)	All Students	http://www.p12.nysed.gov/part100/pages/1005.html#regpasscore
Local	Students with	http://www.p12.nysed.gov/part100/pages/1005.html#assessment
Diploma	a disability	http://www.nto.nugod.gov/gnociolod/nublications/gofatrat-a
	and an Individualized	http://www.p12.nysed.gov/specialed/publications/safetynetcompensatory option.html
	Education	<u>option.num</u>
	Plan (IEP) or	
	504 Plan	

<sup>\*</sup>Honors Designation for students averaging 90 or higher on required Regents Exams

#### NEW YORK STATE NON-DIPLOMA EXIT CREDENTIAL OPTIONS

CREDENTIAL	AVAILABLE TO	LINK TO FULL INFORMATION
TYPE		
Career Development	Students with disabilities other	http://www.p12.nysed.gov/specialed/
and Occupational	than those assessed using the	publications/SACCmemo.html
Studies	NYS Alternate Assessment	_
Commencement		
Credential		
Skills and	Students with <b>severe</b>	http://www.p12.nysed.gov/part100/pages/
Achievement	<i>disabilities</i> that are assessed	<u> 1006.html</u>
Commencement	using the NYS Alternate	
Credential	Assessment	

#### **Promotional Policy**

Minimum units of credit required for promotion from:

**Grade 9-5.5** units **Grade 10-**11.0 units **Grade 11-**16.5 units **Grade 12-**22.0 units \*\*Students must make sufficient progress on Regents exams comparable to their cohort.

<u>Transfer Policy:</u> Students transferring to CHSAT will have their transcripts evaluated by counselors and with the principal's approval will be given comparable credit based on courses taken and NYS Regents exam benchmarks.

#### **Community Service**

In an effort to involve the students in the community and develop character associated with public service initiatives, **CHSAT requires students to complete 40 hours of community service during the course of their high school experience in order to graduate.** Students are required to present official documentation from the coordinator of any community service activity to their school counselor in order to compile the hours required. CHSAT feels this is a positive way to get students involved in the community and encourages parents/guardians to participate with their child(ren). Students should contact their school counselor with any questions or comments about fulfilling this requirement.

#### **Challenging of Exams (NYS Regulation)**

A student may earn credit for a course of study without enrolling in that course (up to a maximum of 6 1/2 credits) if:

- 1. The student has met with his/her school counselor by October 1 for a 1<sup>st</sup> semester or full year course and by March 1 for a 2<sup>nd</sup> semester course.
- 2. The student's past academic performance record demonstrates that the student will benefit by exercising this alternative. This will be determined by the building principal.
- 3. The student must earn a score of at least 85% on a Regents exam or local exam that has been approved by the State.
- 4. It is the belief of CHSAT that valuable experience occurs in the classroom setting. However, in unusual or extenuating circumstances, the challenging of exams may occur.

#### Requests for Accelerated Graduation

New York State high school curriculum and graduation requirements are designed to be completed over the course of 4 years of high school. Therefore, it is not recommended that any student graduate early unless there is a legitimate circumstance which would make it appropriate.

#### Any student who wishes to graduate early must take the following steps:

- 1. Express interest or intent to his/her counselor *before April 1st of his/her sophomore year, and the reason why he/she feels that it is necessary*. At that point, the counselor will complete a transcript review to determine if this is a feasible option, pending the student passes all required courses and stays on track for the remainder of his/her 10<sup>th</sup> grade year. The student and counselor will then complete an early graduation request form together, which must be signed by a parent/guardian and returned within 2 weeks of the meeting.
- 2. Upon receiving a signed request, the counselor will then review the request with the principal and make parent contact to make sure that the request is supported by both administration and the student's parent/guardian(s).
- 3. The student must then schedule an appointment with his/her counselor to plan his/her courses for junior/senior year.
- 4. If after 1st semester of the student's third year of high school he/she is on track and in good academic standing, he/she will be promoted to 12th grade for the remainder of the school year.

**NOTE**: Students who plan to graduate early are eligible to participate in all senior activities and privileges.

#### Report of Grades

Students are graded numerically four times during the school year. Report cards will be issued at the end of the 10th, 20th, 30th and 40th week of school. All report cards are mailed directly to the student's home. Report of grades is a summary of achievement for the previous 10 weeks. Sixty-five (65%) is the minimum passing grade. Individual teacher comments will be on the report card. Parents are invited to confer with the school at any time. Passing a Regents exam does not entitle a student to course credit. A student must achieve a final course average of 65% or higher to be awarded course credit.

**Progress Reports:** A progress report will be mailed at the end of the 5th, 15th, 25th and 35th week of school to inform parents of their child's progress in school. These reports are designed to make parents aware of their child's academic growth. Parents are invited to confer with a counselor or teacher at any time.

**Honor Rolls:** The Honor Roll is based on quarterly averages:

High Honor Roll: 95-100
Honor Roll: 90-94.99
Merit Roll: 85-89.99

#### **Course Final Average Weighting:**

- Regents Courses: Each of the 4 quarterly marking-period final grades comprises 22% (2/9<sup>th</sup>) of the final average. Regents exam scores comprise 12% of the final average (1/9<sup>th</sup>).
- Non-Regents Full Year Courses: Each of the 4 quarterly marking-period final grades comprises 22% of the final average and the final examination comprises 12% of the final average.
- Half Year Courses: Each of the 2 quarterly marking-period final grades comprises 40% of the final average and the final examination comprises 20% of the final average.
- Honors courses will be weighted 1.02% at the close of final grades.
- Advanced Placement and college-level courses will be weighted 1.05% at the close of final grades.

#### **Class Rank Reporting:**

The rank in class is established by placing students in descending order from highest to lowest according to their grade point average. To encourage students to pursue rigorous and demanding educational programs, a number of academically challenging courses have been weighted in recognition of the extra effort needed to meet their requirements. Consequently, selected honors level courses are weighted at 1.02% and Advanced Placement/Articulated Courses for College Credit have been weighted at 1.05%. *The rank will be done using a weighted GPA*.

- Class rank for college admissions purposes will be run at the end of 6 semesters—or junior year—for all students.
- After the 7<sup>th</sup> semester, the class rank will be re-run for the top 20 students—including grades for courses in progress—to determine valedictorian, salutatorian, and top 10 ranking.
- <u>Student Transfer Policy</u>: Students who enter the Charter School for Applied Technologies for the first time as transfers must be in attendance prior to the start of their 12<sup>th</sup> grade year in order to be included in the class rank.
  - NOTE: Students who are excluded from the class rank due to transfer will still be recognized at graduation if applicable (may sit on stage), included in the Merit, Honor, and High Honor Rolls, and have a cumulative average reported.

#### **Grade Appeals:**

In very rare cases, a student may feel that the grade that he/she received should be reconsidered based on unique individual circumstances. In such cases, a student may submit a request to appeal a final grade in writing to an administrator for review. This written request should include:

- 1. The course and grade in question
- 2. A detailed reason for the grade appeal request
- 3. A signature of the student's school counselor AND parent/guardian.

Any student that wishes to contest a final average in any course must do so no later than August 1<sup>st</sup> of the following school year.

## SECTION 3: COURSE SELECTION AND COURSE INFORMATION

#### STEP ONE-Review Curriculum Guide and Course Offerings

While reading through the booklet, students should give special attention to information about graduation requirements and check the prerequisites of courses that interest them. A student should select courses that will help prepare them for their future career goals.

#### **STEP TWO-Orientation of Courses**

All students will have the opportunity to become more familiar with all course offerings through a series of grade level orientation programs. Students will be asked to make decisions concerning required and elective courses.

#### STEP THREE-The Annual Review

The school counselor will send the students a pass for an appointment. During the annual review, the student's academic achievement, career interests, and goal setting will be discussed, the four-year plan will be reviewed and adjusted as necessary, and a tentative list of courses will be developed based on teacher/counselor recommendations and student interests.

#### STEP FOUR-Parent/Guardian Approval

When parents/guardians receive the course selection worksheets at home, they should take time to discuss the courses and how they fit into the student's future plans. If parents/guardians have any questions or wish to make any changes, they should call the counselor. If no contact with a counselor is made, it is assumed that the parents/guardians approve of the proposed courses for next year.

#### **SPECIAL NOTE-Schedule Changes**

We no longer have an official add/drop period as of the 2016-2017 school year. Our school's schedule is built during the previous school year based on student course selections. Because of this, the number of seats and sections are already determined, and it is very difficult to change schedules to accommodate changes that are not related to course failures and graduation requirements. We strongly encourage all students to review the course catalog and make informed choices about courses for the upcoming year.

After course selection is completed with students in classrooms and individually, all requests will be entered into our system. Each parent will receive a letter stating the courses your child is enrolled in. Any conflicts or changes must be addressed before **May 1**st of the year. No changes will be permitted over the summer or at the beginning of the year.

#### Early Release/Late Arrival:

Students that wish to be released from school during study halls to work or for school-community service must apply for approval through the Career Counseling Center. This option is available for seniors only. Early release/late arrival is available to seniors who have a scheduled study hall as their first or last block(s) of the day. A signed contract form must be on file with the office and students must leave the building at their scheduled dismissal time. **Schedules will not be rearranged to accommodate an early release**. In addition, no underclassman will be released early from school due to work obligations. All 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> grade students employed during the school year must notify their employer their school day does not end until 3:00pm.

### **SECTION 4: COURSE CATALOG AND DESCRIPTIONS**

#### SUBJECT/CONTENT AREAS

- 1. Early College & Career Pathways Program (ECCP) at CSAT
- 2. English Language Arts (ELA)
- 3. Social Studies
- 4. Mathematics
- 5. Science & Health and Human Services
- 6. Spanish (LOTE)
- 7. Physical Education
- 8. Business and Technology
- 9. PLTW & Advanced Manufacturing
- 10. Arts & Communication: Music
- 11. Arts & Communication: Visual Arts

\*NOTE: Courses marked with an asterisk (\*) may not be offered every year but are offered based on the number of student requests and instructor availability.



## Charter School for Applied Technologies

#### EARLY COLLEGE AND CAREER PATHWAYS

#### **Program Overview:**

A partnership with SUNY Buffalo State College, SUNY Erie and CSAT that offers unprecedented levels of college and career access and support for our school community. Every student that enrolls at CSAT will not only have the opportunity to earn college credits at no cost, but will also leave CSAT with an employable skill, having access to career opportunities that supplement the accrual of college credit.

#### **Program Targets:**

- Create **the first Early College and Career Charter School in WNY** through a partnership with SUNY Buffalo State College and SUNY Erie.
- Universal access to college credits and career opportunities
- Exposure to the rigors of post-secondary institutions to increase persistence and focus on a specific career pathway.
- Expand existing comprehensive structures of social emotional and academic supports.
- Offer **pathway specific internships** that expose students to the world of work and Buffalo community.

#### What does this mean for students at CSAT?

This program will create an unprecedented level of access to students that will lead to increased persistence beyond high school through post-secondary graduation. Our students will earn both liberal arts and pathway specific credits through a combination of Summer Bridge, Dual Enrollment, and On-Campus courses at Buffalo State College and SUNY Erie.

#### **Credits to Careers**

Increased exposure to college courses will deepen content knowledge and prepare students for an internship experience in their pathway. As students develop their academic skills and soft skills through exposure to college rigor and internship experiences respectively, they will become increasingly confident that they can persist beyond high school in college, the business world, and the world of work.

### **CSAT Pathways**



**Arts & Communication** 



PLTW & Advanced Manufacturing



Health and Human Services



**Business & Technology** 



**Dual Enrollment Offering** 

Courses that fall within a pathway are noted with the icons shown above.

All dual enrollment courses are also noted.

## ENGLISH LANGUAGE ARTS (ELA)

#### **ENGLISH 9**

**Course Type: Required General** 

Prerequisite: English 8

English 9 emphasizes the development of writing skills as well as introduces students to different genres and styles of literature. Students will analyze and produce various genres of writing including persuasive, literary analysis, narrative and expository. Students will also study a variety of both traditional and modern literature, including novels, drama, short stories, and poetry. A number of different activities will be utilized to develop and improve reading, writing, listening, speaking, and critical thinking skills.

Successful Completion=1.0 Credits

#### **ENGLISH 10**

**Course Type: Required General** 

Prerequisite: English 9

In English 10 students will read both classic and modern works of literature, as well as relevant nonfiction. Students will focus on vocabulary development, close reading and analysis of text. Students will continue to develop increasing sophistication in all aspects of language use including vocabulary, development and organization and the use of support in their writing.

Successful Completion=1.0 Credits

#### **ENGLISH 11**

**Course Type: Required Regents, Dual Enrollment** 

*Prerequisite:* English 10

English 11 completes the preparation of students for the Comprehensive Examination in English. Skills in vocabulary, spelling, grammar and reading comprehension are reviewed and strengthened. Students will delve into American Literature and read a variety of genres from different eras of American history. Composition skills such as the organization and development of a multi-paragraph essay will encompass most of the year. Students will research and write a properly documented essay as a major portion of their grade.



<u>NOTE</u>: Students who complete English 11 are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST **Successful Completion=1.0 Credits** 

#### **ENGLISH 12**

Course Type: Required General, Dual Enrollment

Prerequisite: English 11

This course will take you on an epic journey of both reading and writing. Students will explore genres of literature and film, with a focus on both professional and academic writing skills.



<u>NOTE</u>: Students who complete English 12 are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST **Successful Completion=1.0 Credits** 

#### AP ENGLISH LITERATURE & COMPOSITION

#### Course Type: Advanced Placement (weighted 1.05)

Prerequisite: 85% average or better in English 11, very strong comprehension and writing skills; teacher recommendation.

This course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style, and themes as well as the use of figurative language, imagery, symbolism, and tone.

#### **Successful Completion=1.0 Credits**



**NOTE:** Students electing to enroll in Advanced Placement courses will be expected to take the appropriate National Advanced Placement Exams. There is a fee required to take these exams. See your school counselor for more information. ALSO, *Students who complete AP* 

ELA are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST

## SOCIAL STUDIES

#### GLOBAL HISTORY & GEOGRAPHY I

#### **Course Type: Required General**

Global History and Geography is designed to meet the state syllabus that requires a Regents exam to be passed following completion of Global History and Geography II. This course is taught in a chronological format and covers ancient times to the Age of Absolutism. (BCE-1815)

Successful Completion=1.0 Credits

#### **GLOBAL HISTORY & GEOGRAPHY II**

#### **Course Type: Required Regents**

This course is designed to continue the work begun in Global History & Geography I. Its emphasis is on the modern era. The course begins with the Age of Revolutions and is organized chronologically. The course ends with the completion of the required Global History and Geography II Regents exam.

Successful Completion=1.0 Credits

#### **U.S. HISTORY & GOVERNMENT**

#### **Course Type: Required Regents**

Prerequisite: Global I and II

This course is designed to meet the requirements of the revised New York State syllabus in U.S. History & Government. A Regents exam in U.S. History & Government will be given following the completion of this course. Current events and their relationship to concepts in U.S. History are included with an emphasis on sharpening the basic skills of reading comprehension, writing, graph interpretation, and map reading.

Successful Completion=1.0 Credits

#### AP U.S. HISTORY & GOVERNMENT

#### Course Type: Advanced Placement (Weighted 1.05)

Prerequisite: A final grade of 90% or better in Global Studies 10 and Regents exam or special permission of the instructor.

This is a college level course in United States History designed to prepare students for the examination given in May for the college AP credit. The course will emphasize lectures and note taking. Students will also be responsible for college level readings and college level papers. Successful completion of this course may release students from their college freshman American History requirements. Students may take this course in place of U.S. History & Government provided the student takes the Regents examination and passes it. If the course is taken in addition to U.S. History & Government the student may use the course as a fifth unit of credit toward a Social Studies sequence.

#### Successful Completion=1.0 Credits

**NOTE:** Students electing to enroll in Advanced Placement courses will be expected to take the appropriate National Advanced Placement Exams. There is a fee required to take these exams. See your school counselor for more information.

#### PARTICIPATION IN GOVERNMENT

#### Course Type: Required General, will be offered concurrently with Economics

Prerequisite: Global I and II, US History

This course will emphasize the interaction between citizens and government at all levels – local, state and federal. It will encourage students to understand and participate in the Democratic process. The course is designed to meet the NY State standards for government.

Successful Completion=0.5 Credits

#### **ECONOMICS**

## Course Type: Required General, will be offered concurrently with Participation in Government

Prerequisite: Global I and II, US History

This course will focus on basic economic concepts and understanding which all persons will need to function effectively and intelligently as citizens and participants in the economy of the United States and the world. The course will emphasize a rational decision-making process that can be applied to various economic decisions. The course is designed to meet the NY State standards for economics.

Successful Completion=0.5 Credits

#### AP U.S. GOVERNMENT AND POLITICS

#### Course Type: Advanced Placement (Weighted 1.05)

Prerequisite: A final grade of 90% or better in U.S. History & Government or an 85% in AP U.S. History & Government and a 90% or better on the U.S. History & Government Regents Exam This is a college level course in American Government & Politics designed to prepare students for the examination given for college credits as given by the College Board. The course will emphasize college-like lectures, note-taking, debates, and political discussions. Students will also be responsible for college level readings and college level papers and presentations. Successful completion of this course may release students from their Freshman year of college requirements in Government & Politics. Students may take this course in place of senior year Economics & Government requirements as the class will also cover topics in Economics.

#### Successful Completion=1.0 Credits



**NOTE:** Students electing to enroll in Advanced Placement courses will be expected to take the appropriate National Advanced Placement Exams. There is a fee required to take these exams. See your school counselor for more information.

#### INTRODUCTION TO PSYCHOLOGY

**Course Type: Social Studies Elective** 

Prerequisite: 11<sup>th</sup> and 12<sup>th</sup> graders ONLY; paired with Sociology in semesters
Psychology is the systematic study of individual human behavior and experience. The purpose of this course is to introduce the student to the content, terminology, methodology, and application of the discipline. This survey course contains an introduction followed by units based on the physiological, cognitive, behavioral, and affective domains of psychology.

Successful Completion=0.5 Credits



#### INTRODUCTION TO SOCIOLOGY Course Type: Social Studies Elective

Prerequisite: 11th and 12th graders ONLY; paired with Psychology in semesters

Sociology examines how individuals, groups, and institutions interact to make up human societies. The purpose of this course is to learn about sociological perspectives, culture, social structures, and social inequality. Students will study people and the roles they play in society, both as individuals and groups.

**Successful Completion=0.5 Credits** 

#### GREECE, ROME, AND THE WEST

**Course Type: Social Studies Elective, Dual Enrollment** 

*Prerequisite:* 11<sup>th</sup> and 12<sup>th</sup> graders

Students will explore the culture of the Greeks and Romans and analyze the impact that those civilizations had on the Western world. Topics covered include Greek religion and beliefs, the Greco-Persian wars (including the legendary Battle of Thermopylae and the last stand of the 300 Spartans), Alexander the Great, and the rise and fall of Rome from Republic to Empire. Students will explore these topics through analyzing and comparing various primary and secondary sources. We will work on gathering, using, and comparing evidence on these topics to create and defend historical arguments about the classical world. Students will compare their knowledge of classical civilizations with their knowledge of Western civilization in the areas of art, architecture, government, and law.



<u>NOTE</u>: Students who complete Greece, Rome and the West are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST

Successful Completion=1.0 Credits

## **MATHEMATICS**

#### ALGEBRA 1

#### **Course Type: Regents**

This course is aligned to the New York State Standards and is a requirement for the Regents Common Core Algebra 1 Exam. The course develops algebraic thinking skills and concepts connecting them to arithmetic skills to build on what the students already know.

#### Successful Completion=1.0 Credits

#### APPLIED GEOMETRY

#### **Course Type: General**

This course is aligned to the New York State Standards. This course introduces students to theorems and logical thinking. This course also enriches geometric concepts and measurement skills.

#### Successful Completion=1.0 Credits

#### **GEOMETRY**

#### **Course Type: Regents**

Prerequisite: Successful completion of Algebra 1

This course is aligned to the New York State Standards and is a prerequisite for the Regents Common Core Geometry exam. The course enriches geometric concepts and logical thinking. Measurement applications are integrated. With department recommendation, labs may be required.

#### Successful Completion=1.0 Credits

#### ALGEBRA 2

#### **Course Type: Regents**

Prerequisite: Successful completion of Algebra 1 and Geometry

This course is aligned to the New York State Standards and is a prerequisite for the Common Core Algebra 2 Exam. This course enriches algebra concepts with functional skills, and also gets students introduced to probability, statistics, and trigonometry.

#### Successful Completion=1.0 Credits

#### PRE-CALCULUS

#### Course Type: General, Dual Enrollment

Prerequisite: Successful completion of Algebra 2 OR Teacher Recommendation

This course is designed to bridge the gap between Algebra 2 and Calculus. Topics include integral functions and introduction to derivatives. It is the prerequisite to Calculus and is recommended for anyone planning on taking math in college.



<u>NOTE</u>: Students who complete Pre-Calculus are eligible to receive four (4) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST

#### Successful Completion=1.0 Credits

#### INTRODUCTION TO STATISTICS\*

#### Course Type: General, Dual Enrollment

Prerequisite: Successful completion of Algebra 2

Statistics acquaints students with the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students will frequently work on projects involving the hands-on gathering and analysis of real-world data. Ideas and computations presented in this course have immediate

links and connections with actual events. Calculators will allow students to focus deeply on the concepts involved in statistics. This introduction to statistics course will include the following topics: descriptive statistics, probability, hypothesis testing for one and two samples, correlation and regression, and an introduction to analysis of variance.



<u>NOTE</u>: Students who complete Statistics are eligible to receive four (4) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits

#### **COLLEGE MATHEMATICS I\***

#### Course Type: General, Dual Enrollment

*Prerequisite:* Successful completion of at least 2 math courses

This course is a developmental course designed to refresh arithmetic skills while developing basic and algebraic skills in preparing for the required mathematics courses in college. Arithmetic and elementary equations will be continuously reviewed with the following algebraic topics: operations with real numbers, operations with algebraic expressions, linear equations and inequalities, simple word problems, graphic, systems of equations, quadratic equations, operations with radical and basic skills. This course will help students succeed on college placement/entrance exams.



<u>NOTE</u>: Students who complete College Math I are eligible to receive four (4) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

**Successful Completion=1.0 Credits** 

#### **COLLEGE MATHEMATICS II\***

#### **Course Type: General, Dual Enrollment**

Prerequisite: Successful completion of at least 2 math courses

A study of trigonometry and analytic geometry. Topics included will be fundamental trigonometry, graphs of trigonometric functions, identities and equations, inverse trigonometric functions, oblique triangles, complex numbers, analytic geometry, systems of quadratic equations and inequalities.



<u>NOTE</u>: Students who complete College Math II are eligible to receive four (4) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits

#### **CALCULUS\***

#### Course Type: General, Dual Enrollment-Advanced (weighted 1.05)

Prerequisite: Successful completion of Pre-Calculus

Calculus is a course for students of exceptional ability in mathematics who have successfully completed Pre-Calculus with at least an 80% average. Integral and differential calculus are taught.



<u>NOTE</u>: Students who complete Calculus are eligible to receive four (4) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits

### **SCIENCE**



#### LIVING ENVIRONMENT

**Course Type: Regents** 

This course is designed to increase the students' understanding of the organically diverse world in which they live. Students will be able to explain and contrast important biological concepts such as the living cell, human physiology, reproduction, genetics, and ecology. Students will become adept at generating and running scientific experiments and must have successfully completed 30 laboratory experiences (1200 minutes) with satisfactory reports on file to be eligible to take the Regents exam.

Successful Completion=1.0 Credits



Prerequisite: Successful completion of Living Environment

This course presents a modern view of Earth Science that includes the study of astronomy, meteorology, climatology, and geology. Major concepts studied include: the conservation of mass energy; the sun earth energy system; dynamic equilibrium; cyclic changes; the principle of uniformitarianism - the present is the key to the past and the future. Critical to understanding science concepts is the use of scientific inquiry to develop explanations of the natural phenomena. Students must have successfully completed 1200 laboratory minutes with satisfactory reports on file to be eligible to take the Regents exam.

Successful Completion=1.0 Credits



#### **CHEMISTRY**

**Course Type: Regents** 

Prerequisite: Successful completion of Living Environment and Earth Science and Teacher Recommendation

This course is designed for students who have demonstrated exceptional ability in previous science courses. In this course students investigate the fundamental concepts of chemistry in great depth. Students must have successfully completed 30 laboratory experiences (1200 minutes) with satisfactory reports on file to be eligible to take the Regents exam.

Successful Completion=1.0 Credits



#### **PHYSICS**

**Course Type: Regents** 

Prerequisite: Successful completion of Living Environment and Earth Science and Teacher Recommendation

This course presents concepts that study the physical world, matter, energy, and their relationships. Major areas of study include motion, electricity, optics, and modern physics. Students must have successfully completed 30 laboratory experiences (1200 minutes) with satisfactory reports on file to be eligible to take the Regents exam.

Successful Completion=1.0 Credits

#### **FORENSICS\***

**Course Type: General** 

Prerequisite: Successful Completion of Living Environment and Earth Science
Forensics is a laboratory-based introduction to the analysis of crime sciences by collecting and
analyzing physical evidence. The course is designed to integrate the core scientific disciplines, while

giving students both theory and hands on experience with the skills and knowledge required of a forensic crime science investigator. Sample evidence will include Fingerprinting, DNA, bones, glass, hair & fibers, toxicology, blood spatter patterns, ballistics, chromatography, entomology, soil and samples.

#### Successful Completion=1.0 Credits



#### MEDICAL TERMINOLOGY I & II\* Course Type: General, Dual Enrollment

Prerequisite: Successful Completion of Living Environment and Chemistry or Teacher Recommendation

Anatomy and Physiology is a course that provides students with an opportunity to explore the intricate and sophisticated relationship between structure and function in the human body. The course offers students an environment in which they may probe topics such as homeostasis, anatomical and physiological disorders, medical diagnosis and treatment, and survey of the remarkable array of body systems that comprise the human body. Laboratory activities reinforce concepts and principles presented in the course.



<u>NOTE</u>: Students who complete Medical Terminology I & II are eligible to receive six (6) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits

## **SPANISH**

#### **SPANISH I**

#### Course Type: General, Required

Spanish I balances grammar and communication in Spanish. Relevant themes such as friends, family, school, and leisure activities, are designed around the students and the world around them to facilitate language learning. Students also study cultural aspects of various Spanish speaking countries and regions.

#### **Successful Completion=1.0 Credits**

#### **SPANISH II**

#### **Course Type: General**

Prerequisite: Spanish 1 or successful completion of Spanish proficiency exam Spanish II revisits the themes of students and the world around them while balancing grammar and communication in Spanish. The students expand their vocabulary, grammar, and cultural understanding as they revisit each theme in greater depth.

#### Successful Completion=1.0 Credits

#### **SPANISH III**

#### Course Type: General, Regional Exam

Prerequisite: Successful completion of Spanish II

Spanish III is comprised of more abstract and thought-provoking themes such as caring for the environment, the role of government, and describing art and culture. Activities combine communication, grammar study, and cross-curricular content with authentic literature and poetry.

#### Successful Completion=1.0 Credits

#### ADVANCED SPANISH\*

#### **Course Type: General Elective, Dual Enrollment**

Prerequisite: Spanish III and Teacher Recommendation

This college level course is a review of grammar and an evaluation in the reading of easy Spanish texts. Students will prepare written and oral reports. The aim of the course is to expand the vocabulary and improve oral comprehension upon successful completion.



<u>NOTE</u>: Students who complete Advanced Spanish are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits

## PHYSICAL EDUCATION

#### PHYSICAL EDUCATION 9-12

#### **Course Type: General: Required**

The Physical Education curriculum at the high school level is designed to offer all students a fitness-based curriculum and a chance to experience a wide range of physical activities with the use of heart rate monitors. These heart rate monitors are used to track the student's progress during their workout. At the end of each class, an email is sent out by our heart rate monitor system to the student and parent for instant feedback of the accomplishments of each class. Another highlight of the PE program is students are separated by the activity of their choice. They can choose from traditional sports in the main gym or participate in movement-based Xbox games or use any of the cardio equipment in our fitness rooms. All activities and lessons are designed to stress the overall fitness of the student and follow the three New York State Learning Standards for Physical Education.

Successful Completion=0.50 Credits

#### **PE12: PHYSICAL FITNESS**

#### Course Type: General, Dual Enrollment

*Prerequisite: Must* have at least an 85% average in PE during your 11<sup>th</sup> grade year and teacher recommendation.

This course emphasizes the development of an individualized/personal fitness program.



<u>NOTE</u>: Students who complete Physical Fitness 1 in 12<sup>th</sup> grade are eligible to receive one (1) college credit through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=0.50 Credits

#### **HEALTH EDUCATION+**

#### Course Type: General: Required

This course focuses on at risk behaviors and emphasizes how students can develop prevention skills that ensure health and wellness. With the unhealthy state of our nation, Health gives students strategies to not only improve teen health but to become health literate for a productive, healthy future. This course develops attitudes, skills and behaviors that enhance the quality of life through all aspects of social, mental and physical health. Students will become more knowledgeable regarding decision-making, mental health issues, nutrition, physical fitness, stress management, human sexuality and disease prevention. The effects of all drugs on the human body and on society as a whole are also investigated.

#### Successful Completion=0.50 Credits

+Students will enroll in Health at the same time as Physical Education in 9<sup>th</sup> grade and will receive credit for BOTH courses. Note: Health is a New York State requirement for graduation, not an elective.

## **BUSINESS AND TECHNOLOGY**



## FRESHMAN SEMINAR/BUSINESS ANALYSIS AND BUSINESS COMPUTER APPLICATIONS

Course Type: Required: General,

Prerequisite: 9th graders ONLY

This course is designed to ease the transition of students into high school and enable them to grow into more well-rounded young adults. Freshman will have the opportunity to learn the essential skills for academic success, create a support system for themselves, and develop the interpersonal skills necessary to best handle the social and emotional stresses of high school. Students will also explore career options and learn practical financial skills including making money work for them and how to take control of their financial lives. We are also excited to work with your children as they gain a better understanding of SAY YES and how it will affect their educational careers.

**Successful Completion = 1.0 Credits** 



#### **INTRODUCTION TO BUSINESS\***

**Course Type: General Elective** 

Prerequisite: Grades 9-10

Students will be introduced to numerous business and management strategies in the areas of: Marketing, Human Resources, and Finance. We will also explore different types and sizes of businesses. Students should be prepared for an interactive class that will include hands-on activities and group discussions. This course is great if you think you might like to own your own business in the future or go into management.

**Successful Completion: 1.0 Credits** 



#### **COMPUTER PROGRAMMING I**

**Course Type: General Elective, Dual Enrollment** 

Prerequisite: Grades 10, 11, or 12 only and Intro to Business

Students will better understand the digital world around them. This course will prepare students to be active and informed contributors to an increasingly technological society. Topics covered will include - programming, computing, HTML and will inspire students to build web sites, apps, games, and program computing devices. This is a hands-on, creative, project-based course.



<u>NOTE</u>: Students who complete Computer Programming I are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits



#### **COMPUTER PROGRAMMING II**

**Course Type: General Elective, Dual Enrollment** 

Prerequisite: Computer Programming I

Introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design using the Java programming language. This course reflects what computer science teachers, professors, and researchers have indicated are the main goals of an introductory, college-level computer science programming course.



<u>NOTE</u>: Students who complete Computer Programming II are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

**Successful Completion=1.0 Credits** 



#### ADVANCED COMPUTER APPLICATIONS

**Course Type: General Elective, Dual Enrollment** 

Prerequisite: Intro to Business

This course will explore advanced functionality within the Microsoft Office Suite. Students will receive an in-depth working knowledge of Word, Excel, Access, Power Point, and Publisher. In addition, an introduction will be made to basic coding and One Note. In this course students will also prepare to take the Microsoft Office Specialist Certification exam, an industry recognized technology certification. This 100% project-based class will allow students to view data and information in completely different ways and broaden their view of what is possible on a computer.



<u>NOTE</u>: Students who complete Advanced Computer Applications are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

**Successful Completion = 1.0 Credits** 



#### ENTRPRENUERSHIP AND MARKETING

**Course Type: General Elective** 

Prerequisite: Grades 10, 11 or 12 and Intro to Business

In this course students will learn the characteristics of successful entrepreneurs, and the role entrepreneurship plays in the economy, and the basic types of business. Topics covered will include how to generate business ideas; create a business plan and promote and market a company. Students will learn how products are developed, branded, and sold. The course will also cover the skills and concepts needed to create and run a business including marketing, advertising, accounting, and analyzing financials. This course is project based.

Successful Completion=1.0 Credits



#### INTRODUCTION TO LOGISTICS\*

**Course Type: General Elective** 

Prerequisite: Grades 11 and 12 only

Students will learn about careers and businesses involved in the planning, management and movement of people, materials and products by road, air, rail, and water. It also includes related professional and technical services such as infrastructure planning and management, logistics, and maintenance of equipment and facilities.

**Successful Completion = 1.0 Credits** 



#### **COLLEGE AND CAREER SUCCESS SKILLS**

**Course Type: General Elective, Dual Enrollment** 

Prerequisite: Grades 10 only

This course will provide a "real-world" hands-on approach to gaining a better understanding of ALL career options after high school. Students will conduct career research, take interest inventories, go through the job application process, and create their professional documents. During the second half of this course students will have the opportunity to conduct college major and school research, be guided through the college application process, learn about financial aid, and hear from college admissions representatives.



NOTE: Students who complete College & Career Success Skills are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion: 0.5 Credits









**CAREER EXPLORATION INTERNSHIP PROGRAM (CEIP)**Prerequisite: Students need to have working papers in order to participate.

The Career Exploration Internship Program assists students with understanding the linkages between school and work. Through CEIP, students explore and learn about a variety of career options by completing a non-paid worksite experience. Students select the career clusters that are explored.

The CEIP is offered to Seniors, as a follow up to underclassmen Job Shadows and Tours, and prior participation in the other Career Exploration opportunities offered. The CEIP reinforces an individual's opportunity to learn, firsthand, about the skill and educational requirements necessary for career areas in which the students believe they are interested in pursuing. The partnership between education and business is an essential one that will allow the students to future network and develop themselves.

Successful Completion of the Course: 0.5 Credits – 54 hours (work site) of non-paid internship and 27 hours of in school supporting instruction

# PROJECT LEAD THE WAY (PLTW) AND ADVANCED MANUFACTURING



#### INTRODUCTION TO ENGINEERING DESIGN (IED)

Course Type: General: Project Lead the Way (PLTW), Dual enrollment

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



<u>NOTE</u>: Students who complete Introduction to Engineering Design as a  $10^{th}$  grader or higher, are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

**Successful Completion: 1.0 Credits** 



#### PRINCIPLES OF ENGINEERING (POE)

Course Type: General: Project Lead the Way (PLTW)

Prerequisite: IED or Teacher Recommendation

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

**Successful Completion: 1.0 Credits** 



#### **AEROSPACE ENGINEERING (AE)**

Course Type: General, Project Lead the Way (PLTW)

Prerequisites: IED and POE

This course propels students' learning in the fundamentals of atmospheric and space flight. As they explore the physics of flight, students bring the concepts to life by designing airfoils, gliders, propulsion systems, and rockets. They learn basic orbital mechanics using industry-standard software. They also explore robotics systems through projects such as remotely operated vehicles and autonomous rovers.

**Successful Completion: 1.0 Credits** 



#### CIVIL ENGINEERING AND ARCHITETURE (CEA)

Course Type: General: Project Lead the Way (PLTW)

*Prerequisites:* IED, POE, Geometry enrollment and/or completion. Algebra II enrollment recommended.

Students learn important aspects of building and site design and development. They apply math, science, and standard engineering practices to design both residential and commercial projects and document their work using 3D architecture design software.

**Successful Completion: 1.0 Credits** 



#### **COMPUTER INTEGRATED MANUFACTURING (CIM)**

Course Type: General: Project Lead the Way (PLTW)

Prerequisites: IED and POE

Manufactured items are part of everyday life, yet most students have not been introduced to the high-tech, innovative nature of modern manufacturing. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and automation.

**Successful Completion: 1.0 Credits** 



#### **DIGITAL ELECTRONICS I & II (DE)**

Course Type: General: Project Lead the Way (PLTW), Dual Enrollment

Prerequisite: IED and POE

From smart phones to appliances, digital circuits are all around us. This course provides a foundation for students who are interested in electrical engineering, electronics, or circuit design. Students study topics such as combinational and sequential logic and are exposed to circuit design tools used in industry, including logic gates, integrated circuits, and programmable logic devices.



<u>NOTE</u>: Students who complete Digital Electronic are eligible to receive eight (8) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO

**Successful Completion: 1.0 Credits** 

## **MUSIC**



#### **SELECT TREBLE CHOIR**

Course Type: General Elective Level: Intermediate/Advanced

Pre-requisite: has been in a choir before, and Instructor's permission

Treble Choir is an auditioned vocal ensemble open to soprano & alto singers in grades 9-12. Here, they will be introduced to healthy vocal techniques and musical skills to help them become more independent and literate musicians within an ensemble. This ensemble participates in 3 MANDATORY concerts throughout the year and performs a repertoire spanning from Pop to Classical.

**Successful Completion = 1.0 Credits** 



#### **MIXED CHORUS**

Course Type: General Elective Level: Intermediate/Advanced

Pre-requisite: audition and/or Instructor's permission

Mixed Choir is a vocal ensemble open to soprano, alto, tenor, and bass singers in grades 9-12. This choir demands a high level of musicianship, focus, and effort. The repertoire is varied, but typically high level. This ensemble participates in 3 MANDATORY concerts throughout the year and represents the school at multiple community and school events that require a level of professionalism and responsibility from every member.

**Successful Completion = 1.0 Credits** 



#### INDEPENDENT VOCAL STUDY

**Course Type: General Elective** 

Level: All Levels

Vocal Independent Study is an elective that operates on one-on-one weekly lessons. Students will develop healthy classical vocal techniques while learning the basics of music reading through performances of various repertoire selected by instructor. To be successful in independent voice study you must have passion for singing & performing and be able to work effectively and independently. This course is specifically designed for students who hope to continue singing after school at a high level or attend music school.

**Successful Completion = 1.0 credits** 



#### SYMPHONIC BAND/ LESSONS

**Course Type: General Elective** 

**Level: All Levels** 

Pre-requisite: Currently a member of band, or teacher recommendation

Symphonic band is open to students in grades 9-12 who currently play a band instrument. Students will develop the technical and auditory skills necessary to play their instrument at a higher level. This development will be achieved through the practice and performance of a variety of band literature in rehearsals and weekly small-group, private lessons. Concert and competition attendance is mandatory.

Successful Completion = 1.0 credit



Pre-requisite: must have prior experience in music elective, or have teacher allow.

The major emphasis of this year-long course is to build student achievement through a modern band ensemble. The course builds the skills necessary to perform on electric guitar, acoustic guitar, electric bass, keyboard, drums, vocals and technology at an intermediate to advanced level. With an emphasis on the music styles of the last 50 years, many of these will be discussed, demonstrated and performed by the students. The course will also foster peer to peer development in the band setting while encouraging each band to perform cohesively as a single unit. Students in Modern Band will also focus on Composition, both as an individual and group, and Improvisation. End of term projects will culminate with both solo and group ensemble performances.

**Successful Completion = 1.0 credits** 



#### FOUNDATIONS OF MUSIC: PIANO/GUITAR Course Type: General Elective, HALF YEAR Level: All levels

In Piano is a one semester course where students will learn/improve proper piano technique and musicianship while learning to read notation and understand basic music theory. The ability to work independently and remain focused on improvement will be necessary to succeed in piano class.

**Successful Completion = 0.5 credits** 

Guitar is a one semester course that will cover the basics of the instrument and application of essential music foundations while playing guitar. Students will learn how to play chords, read and play tablature, understand beginner music theory, tune the guitar, and more!

**Successful Completion = 0.5 credits** 



#### DIGITAL MUSIC: INTRODUCTION TO LOGIC \*

**Course Type: General Elective** 

Digital Music is a digital music creation course that specializes in learning and creating music within the Mac program Logic. Students will create tracks using various manipulatives, including prerecorded loops and MIDI controllers. Each project is based on a musical concept and is developed to give students the experience of a producer and composer in today's digital music world.

Successful Completion=1.0 Credits

#### **ADVANCED MUSIC THEORY Course Type: General Elective**

Pre-requisite: must have prior experience in music elective, or permission of instructor In this year-long course, students will learn how to read, write, analyze, perform, and respond to music in preparation for music coursework/experiences after high school. This is class designed for the advanced musician to more thoroughly understand the components of music and composition along with basic music history. Students will also be able to compose music and understand the guidelines used in music composed by others.

Successful Completion=1.0 Credit

## **VISUAL ART**

STUDIO IN ART

**Course Type: General Elective** 

Studio in Art is designed to provide a foundation for advanced courses such as Digital Arts and Drawing & Painting. Emphasis is placed on understanding the Elements of Art and Principles of Design as a basis for composition. Students will explore a variety of artists, art processes and materials such as drawing, painting, printmaking, and two-dimensional design. Student artwork will reflect cultural and historical contexts. Artistic talent and previous experience are not required, but a willingness to create, improve on, and discuss artwork is essential for success in this course.

Successful Completion=1.0 Credits



#### STUDIO IN CRAFT

**Course Type: General Elective** 

Studio in Craft is a workshop class that is designed to provide a foundation for advanced courses such as 3-Dimensional Design. In this class you will explore making 3D and cultural art in a "studio" environment. Studio in Craft Art combines a variety of materials and skills to create art while learning the strategies of an artist; planning, working, critiquing and presenting work. You will explore printmaking, clay, mosaics, fabric manipulation and much more! Because of the intricacy of craft art, this course will require time spent outside of class to plan, work on, and complete assignments.

Successful Completion=1.0 Credits



#### **DRAWING & PAINTING\***

**Course Type: General Elective** 

Prerequisite: Studio in Art

Drawing & Painting builds on the foundations of studio art courses, emphasizing two-dimensional media and creative visual problem solving using the elements and principles of art. Students will be introduced to a variety of new artistic concepts/styles, movements in art history (including impressionism, cubism, and pop-art), and drawing/painting media (including projects made with pencil, charcoal, pastel, ink, watercolor, acrylic, and collage). Students will keep a daily sketchbook for planning projects and taking notes. They will also research the life and work of famous artists (past and present) and develop their own expertise in a style or media of their choice.

Successful Completion=1.0 Credits



#### ADVANCED DRAWING & PAINTING\*

**Course Type: General Elective, Dual Enrollment** 

*Prerequisite: Studio in Drawing and Painting* 

Advanced Drawing & Painting is a rigorous upper-level art course for the student who has already taken Drawing & Painting and is planning to continue their artistic practice in high school. Students will have the opportunity to build on their portfolio for applying to college art programs and can also earn college credit through this course. The first half of the year will center on drawing from direct observation using a wide variety of media (graphite/colored pencil, charcoal, pastel, etc.) focusing on proportion, composition, still-life, perspective, and portraiture. The second half of the year will center on the basics of oil painting, focusing on color theory, still-life, landscape, and the human figure.

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<u>NOTE</u>: Students who complete Advanced Drawing & Painting are eligible to receive six (6) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

Successful Completion=1.0 Credits



Prerequisite: Studio in Art or Craft & Teacher Recommendation

Digital Arts 1 is a course that focuses on building a solid foundation of the basic elements of visual art; line, shape, form, color, value, space, and texture. This course focuses on teaching core skills of using the iMac computers, Canon Rebel t6 Cameras, Adobe Photoshop, and Adobe Illustrator to create vector and raster-based artwork in a Fine Art context. Topics include learning the artistic processes of planning, creating, presenting, and critiquing original digital projects. Projects include posters, photography series, stop-motion videos, book binding, and so much more! (This course includes a mandatory \$10 lab fee.)

Successful Completion=1.0 Credits



**Course Type: General Elective, Dual Enrollment** 

Prerequisite: Digital Arts 1 & Teacher Recommendation

Digital Arts 2 allows students to build on the skills and concepts that they began in Digital Arts 1 as they develop their vocabulary of digital design. Students will advance their skills on the iMac computers, Canon Rebel to Cameras, Adobe Photoshop, and Adobe Illustrator. Students will also be introduced to Adobe Photoshop Camera Raw and Digital Arts Careers. Not all work will be completed on the CHSAT campus; students are required to attend workshops, fieldtrips, and to complete assignments at home! Projects include screen printing, paper marbling, book binding, gifs, photography series, contests, and so much more! (This course includes a mandatory \$10 lab fee.)



<u>NOTE</u>: Students who complete Digital Arts 2 are eligible to receive three (3) college credits through SUNY Erie and the Early College & Career Pathways Program AT NO COST.

**Successful Completion=1.0 Credits** 



#### THREE-DIMENSIONAL DESIGN

**Course Type: General Elective** 

Prerequisite: Studio in Art or Craft

3-Dimensional Design builds on the foundation of Studio in Craft classes. Students will be introduced to the elements and principles of art through 3-Dimensional processes as well as develop the ability to analyze form and space relationships. They will examine, analyze, and interpret traditional and contemporary works of art. This course will explore a variety of different artists and mediums including plaster, clay, cardboard, and other mixed media. Individual and group projects are enforced and will promote problem-solving, creative thinking, and formal expression.

Successful Completion=1.0 Credits