

Catasauqua High School



Career Planning Guide

2024-2025

s e c t i o n 1

General Information

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- Academic Requirements
- Honors
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- Special Education
- Required Subjects
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CATASAUQUA HIGH SCHOOL

2500 W. Bullshead Road
Northampton, PA 18067
Telephone: 610-697-0111
Fax: 610-697-0116
Website: www.cattysd.org



Home of the
"ROUGH RIDERS"

Motto:

"Dedicated to Educational Excellence"

School Colors:

Brown and White

Nickname:

"The Rough Riders"

Approved by:

Department of Education – Commonwealth of Pennsylvania

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HIGH SCHOOL ADMINISTRATORS

Mr. David Todd, Principal
Mr. Christopher Gerhard, Assistant to the Principal

HIGH SCHOOL CONTACTS

Mr. Thomas R. Moll II, Director of Athletics and Student Activities
Mrs. Tara Roseman, School Counselor (Classes of 2026 & 2028)
Mrs. Stephanie Covelle, School Counselor (Classes of 2025 & 2027)
Mrs. Donna Tercha, School Nurse

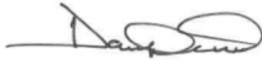
A MESSAGE FROM THE ADMINISTRATION

Dear Catasauqua High School Family Members:

This 2024-2025 *Career Planning Guide* is provided so that our students and their parents/guardians may make informed choices regarding course selections. It is crucial that these decisions be made carefully, as course selection at the high school level has a direct effect on the kinds of educational opportunities available to students after graduation. It is important that you consider the student's goals, interests, abilities, school achievement, and credit requirements as you choose courses for the next school year. Discuss these matters at home, talk to our teachers and counselors, and collect as much information as possible before choosing your courses for next year.

A student's success and satisfaction with their high school experience depends on how much the student is willing to invest. Get involved in activities, athletics, and be a part of your high school. This participation, coupled with honest academic effort, will help to guarantee that your years at Catasauqua High School will be the best years of your life.

Sincerely yours,



David Todd,
Principal



Christopher Gerhard,
Assistant to the Principal

MISSION

The mission of the Catasauqua Area School District, in partnership with our community, is to achieve educational excellence and promote lifelong learning. (As approved by the Catasauqua Area School Board)

EQUAL OPPORTUNITY (NONDISCRIMINATION) POLICY

The Catasauqua Area School District is an equal opportunity education institution and will not discriminate on the basis of race, color, national origin, gender, and handicap in its activities, programs, or employment practices as required by Title VI, VII, Title IX, and Section 504. For information regarding civil rights or grievance procedures, contact Mr. Eric Dauberman, Title IX Coordinator, Section 504 Coordinator, at 201 North Fourteenth Street, Catasauqua, PA 18032; phone 610-264-5571. For information regarding services, activities, and facilities that are accessible to and usable by handicapped persons, contact Mr. Eric Dauberman, Assistant Superintendent, at 610-264-5571.

INTRODUCTION TO THIS GUIDE

This *Career Planning Guide* has been developed to aid each Catasauqua High School student and his/her parents/guardians in choosing the best program of studies consistent with individual goals and abilities.

A student's choice of subjects should be strongly influenced by his/her future educational, vocational, and career plans. The student's decision should be realistic in order to ensure personal satisfaction and success.

During the process of scheduling orientation and course registration, our School Counselors provide small group presentations and meet with students about their individual choices, as requested by the student. We would like to strongly encourage parents/guardians to become involved in their son/daughter's educational choices. Knowledge of Catasauqua High School's educational offerings, as presented with this "Guide" should assist both students and parents/guardians in making accurate and careful decisions on the most appropriate courses for the student. Please remember, too, that faculty input will help in your decision-making process, especially if the student is undecided about the type of curriculum to choose or the difficulty and specific content of a course.

WE BELIEVE...

- It is the responsibility of the high school staff to encourage the development of character, responsible citizenship, and a strong work ethic in our students.
- That Catasauqua High School will ensure all students' mastery of academic standards by delivering a challenging and evolving curriculum which is aligned to the common core.
- That lifelong learning is important for success in an ever-changing global society.
- All students will be provided opportunities to explore various career pathways.
- That opportunities will be provided for all students to participate in extracurricular activities and programs to develop their athletic, artistic, intellectual, and social skills.
- That education is a shared responsibility among the school, students, parents, and community members.
- All students are responsible for learning when provided with proper guidance, structure, and support in a safe environment.
- That Catasauqua High School develops communication skills among their students, school, and community.
- We appreciate educational and ethnic diversity and promote understanding between various groups.
- Unique traditions foster a sense of community and pride among our students and citizens.

GRADUATION REQUIREMENTS

The graduation requirements at Catasauqua High School ask that students successfully earn 28 total credits to graduate. Some of these credits must be taken in specific curricular areas, according to the Pennsylvania Department of Education (PDE) and the Catasauqua Area School District. The following minimum courses and credits are required to earn a Catasauqua High School diploma:

Content Area Credit Requirements	Recommended Course Sequence Options			
	9th	10th	11th	12th
English 1.0 credit/course Required: 4.0 credits total	English 9A/9B	English 10A/10B	English III Applied	English 12 Applied English IV (2024-25) Applied
	English I (Applied, CP, Honors)	English II (Applied, CP, Honors)	English III (Applied, CP, Honors)	English 12 (Applied, CP, Honors) English IV (2024-25) (Applied, CP, Honors)
Social Studies 1.0 credit/course Required: 4.0 credits total	American History II or American History II Honors	World Cultures (Applied, CP, Honors)	American Government	Student Selected Social Studies Credit
Mathematics 1.0 credit/course Required: 4.0 credits total Math course sequence determined by completion of prerequisite courses, grades & teacher recommendation	Math 9A/9B	Math 10A/10B	Geometry Applied	Algebra II
	Pre Algebra/Algebra I	Geometry Applied	Algebra II	Consumer Math
	Algebra I CP	Geometry CP	Algebra II CP	Student Selected Math Course/Credit
	Algebra II Honors	Geometry Honors Trig/Adv. Algebra Honors	Pre Calculus Honors	Calculus Honors
Science 1.0 credit/course Required: 4.0 credits total	Physical Science	Biology (Applied or CP)	Student Selected Science Course/Credit	Student Selected Science Course/Credit
	Physical Science Honors	Biology Honors	Student Selected Science Course/Credit	Student Selected Science Course/Credit
Wellness Fitness 1.0 credit/course Required: 2.0 credits	Wellness/Fitness 9	Student Selected Wellness/Fitness Course/Credit	Student Selected Wellness/Fitness Course/Credit	
Personal Finance Course Required: 0.5 credit <i>Exception - Students Attending LCTI</i>			Personal Finance	
Career Skills Course Required: 0.5 credit <i>Exception - Students Attending LCTI</i>			Career Skills	
Elective Credits Required: 9.0 credits	Elective courses are defined as: <ul style="list-style-type: none"> ● Core courses (English, Social Studies, Math, Science) taken beyond the minimum required credits ● World Language Courses ● Art, Music, and Humanities Courses ● Computer Science Courses 			

Curricular Area	Credits	Courses (the following courses are a sample list of options):
English	1.0 credit/course 4 credits total	English I , English 2, English 3, and English 12
Social Studies	1.0 credit/course 4 credits total	American History 2, World Cultures, American Government, and 1 other Social Studies course of the student's choice
Mathematics	1.0 credit/course 4 credits total	Pre-Algebra, Algebra 1, Geometry, Algebra 2, Trig/Adv Algebra, Precalculus, Calculus, AP Calculus, Consumer Math
Science	1.0 credit/course 4 credits total	Physical Science, Biology, Chemistry, Physics, Environmental Science, Astronomy, Botany & Zoology, Marine Biology
Wellness/Fitness	1 credit/course 2 credits total	Wellness/Fitness 9 <ul style="list-style-type: none"> required in 9th grade; exception: students attending LCTI in 9th Team Sports, Personal Fitness
Personal Finance Career Skills	0.5 credit/course 1 credit total	Personal Finance, Career Skills <ul style="list-style-type: none"> required during the junior year (exception: students attending LCTI)
Elective Course(s)	9 credits total	Electives include course(s) as follows: Core courses (i.e. math, science, social studies) beyond the minimum credit requirement, World Language, Art, Music, Humanities courses, as well as our Computer Science courses.
Other responsibilities		<ul style="list-style-type: none"> Career Portfolio artifact collection (PASS/FAIL) <ul style="list-style-type: none"> Complete by the end of the junior year Meet a Keystone Graduation Pathway (ACT 158) <ul style="list-style-type: none"> Complete by the end of the senior year Catasauqua Graduation Project (PASS/FAIL) <ul style="list-style-type: none"> Completed during the senior year

KEYSTONE EXAMS

Pennsylvania uses the Keystone Exams as the statewide assessment to comply with accountability requirements set forth in the federal Every Student Succeeds Act (ESSA). All students are required to participate in the Keystone Exams for the purposes of federal accountability.

KEYSTONE GRADUATION PATHWAYS (ACT 158 of 2018)

The Pennsylvania Department of Education has recently revised its graduation requirements for all students in the Commonwealth, beginning with the Class of 2023.

Students can meet the statewide graduation requirement by one of the following methods:

PROFICIENCY PATHWAY

- Scoring proficient or advanced on each Keystone Exam - Algebra I, Literature, and Biology.

COMPOSITE PATHWAY

- Earning a satisfactory composite score on the Algebra I, Literature, and Biology Keystone Exams.
- Composite score minimum is 4452.
 - Composite scores are calculated by the numeric value of each Keystone Exam score.
 - Additional criteria to be eligible for the Composite Keystone pathway states that at least one of the three exam scores must be Proficient and that no exam score can be scored as Below Basic.

ALTERNATE BASED ASSESSMENT PATHWAY

- Earning a passing grade on the courses associated with each Keystone Exam, and satisfactorily complete one of the following: an alternative assessment (SAT, PSAT, ACT, ASVAB, Gold Level ACT WorkKeys), advanced

coursework (AP, IB, concurrent enrollment courses), pre-apprenticeship, or acceptance in a 4-year nonprofit institution of higher education for college-level coursework.

CTE PATHWAY

- Earning a passing grade on the courses associated with each Keystone Exam, as well as earning a passing score on the National Occupational Competency Testing Institute (NOCTI) or the National Institute of Metalworking Skills (NIMS) assessment in an approved Career and Technical Education concentration.

EVIDENCED-BASED PATHWAY

- Earning a passing grade on the courses associated with each Keystone Exam, and demonstrating readiness for postsecondary engagement through three pieces of evidence from the student's career portfolio aligned to student goals and career plan. Examples of evidence will include ACT WorkKeys, SAT Subject tests, AP, IB and concurrent coursework, higher education acceptance, community learning project, completion of an internship, externship or co-op or full-time employment.

More information about ACT 158 can be found at:

<https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/GraduationRequirements/Pages/default.aspx>

CLASS RANK AND AVERAGES

Class rank is extremely important to students who desire to further their education after high school. Class rank is compiled on the basis of work done in high school from grades nine through twelve. It is important that students realize that working hard in grade nine is as important as working hard in grades ten, eleven, and twelve.

Class rank is computed at the end of each marking period and will be printed on report cards.

The majority of subjects are used in calculating the class rank. The final grade attained in each course is multiplied by the credit amount given in that course. The final average is then placed in numerical order and ranked according to the other students' averages within the grade level. All Honors courses carry a weighting factor of 1.06, which is used to multiply the grade for class rank, G.P.A., and Honor Roll.

AP courses will have a weighted grade factor of 1.12.

MARKING (GRADING) SYSTEM

Students receive numerical grades that have a letter equivalent, for each course. Grades represent achievement in subject matter. Students may also receive anecdotal feedback comments from each teacher at the end of a grading term. A teacher's comments often serve to provide additional information on the student's effort, attitude, work ethic, and the application of the curriculum.

Indicated below is an explanation of Catasauqua High School's numerical grading system and the associated letter grades:

Letter Equivalent	Numerical Grade	Description
A	90-100	Exceptional
B	80-89	Above Average
C	70-79	Average
D	60-69	Passing
F	59 and below	Failure
I	Incomplete work *	Student must complete work for a grade

All courses receive numeric grades on the report card. Letter grades may be used for some support classes. The following letter grades will be used as needed:

M = Medical Excuse

- most commonly used when a student is medically exempt from their physical participation in a Wellness/Fitness course

AU = Audit for no credit

I = Incomplete (no credit awarded)

- the student must collaborate with the teacher to develop a timeline for completing the outstanding work prior to the midpoint of the following marking period. Non-compliance with the mutually agreed upon plan results in the assignments and, subsequently the end-of-term grade to be evaluated in accordance with the teacher's grading policies as outlined in their syllabus.

*Students are reminded that incompletes on a report card for a given marking period are to be made up and removed on or before the midpoint of the subsequent marking period. Incompletes at the end of the school year are to be made up prior to June 30th. The CHS School Counseling Office must receive written notification of such circumstance before the last of student attendance. If these conditions are not met, barring special consideration for just cause approved in advance by the building administration, all incomplete and/or missing assignments will receive a zero (0), and the final term and course grade will be assessed in accordance with the teacher's grading procedures. The building principal reserves the right to review and rule on the merit and special circumstances of individual cases.

FINAL COURSE AVERAGES AND EXAMINATIONS

Final examinations may be given at the completion of a semester course (partial credit subjects excluded). The grade earned in the final examination will represent one-ninth (.12%) of the final grade for the course.

Staff members have the flexibility to offer a project or alternative assignment in lieu of a final exam. Staff members may choose to incorporate a final report, an e-portfolio, a professional presentation, a mock lecture, a case study, etc., instead of a final exam for their course. Grading for the alternative assignment in lieu of a final exam will follow the same procedures as a final exam.

Students who are absent from a final exam will be required to make up that exam the day they return to school. If a student fails to report for an exam and does not provide the required doctor's documentation, they will be ineligible to participate in any extracurricular school-related activities on the day the exam was scheduled. CHS Administration reserves the right to waive final exams.

Exemption of Final Exams: Any student who receives a 90% or higher in both quarters of a course will be exempt from taking a final exam for the course and will receive a final grade that is the average of the two quarters. An average of 90% or higher for both quarters will not exempt a student from an exam. They must have a final quarter grade of 90% or higher for each quarter in order to be exempt from the final exam.

CREDITS

All students must register for a minimum of 8 credits or the equivalent each year of enrollment. CHS students **in grades 9, 10, and 11** must take 8 credits each year. **Grade 12 students** who are granted waivers are eligible to take less than 8 credits.

HONOR ROLLS

DISTINGUISHED HONOR ROLL

A student must attain an overall average of 93 or higher in the marking period in all numerically graded subjects with no grade lower than an 80.

HONOR ROLL

A student must attain an overall average of 85 in the marking period in all numerically graded subjects with no grade lower than 77.

Academic awards will be presented to students who have consistently earned Distinguished Honor Roll and/or Honor Roll status. Awards will be presented as follows:

1. Five (5) honor rolls
 - a. Award: white chenille letter and lamp of knowledge clip.
 - b. If a student already has been awarded a white chenille letter, only a clip will be awarded.
2. Nine (9) honor rolls
 - a. Award: "Rough-Rider" plaque
3. Thirteen (13) honor rolls
 - a. Award: medal
4. Sixteen (16) honor rolls
 - a. Award: crystal trophy

Students attaining 16 Honor Rolls (Distinguished Honor Roll and Honor Roll combined) at the end of their senior year will be recognized during CHS's Commencement Ceremony.

HONOR GRADUATES

At commencement services, graduates who have maintained at least a 90.00 average for their entire high school career will be recognized by wearing a gold stole to denote their academic achievements. These students will be recognized as Honor Graduates.

REPORT CARDS

A student's work is carefully monitored and recorded by each teacher. Student understanding and cooperation are necessary ingredients to achieve success in the school program. Student grades and report cards are available online via PowerSchool. To keep the student and parents informed, we offer the following information on a periodic basis:

1. Online Report Cards - Issued four times during the school year. Parents should examine the grades, comments, and attendance records on this sheet.
2. Examinations - At the conclusion of each course, a CHS student is required to take a comprehensive final examination or complete an alternative (teacher discretion). This exam counts for one-ninth of the student's final grade in a course.

WITHDRAW AND/OR TRANSFER FROM SCHOOL

1. Transfer to another school: Students moving out of the school district will be withdrawn and transferred with a minimum of educational interruption. The procedure is as follows:
 - a. Notification of a student transfer to another school district must be made to the guidance office by the parent or guardian. Only the parents/guardians who are listed on the school records will be allowed to complete the student withdrawal.
 - b. The parent must then schedule an appointment with the guidance counselor or secretary to come to school and sign the "permission to release records form."
 - c. Students who are under 18 years of age must attend CHS until the start of attendance in the new school if possible.
 - d. The student's iPad, the carrying case, charger, and cords that were provided to the student must be returned and inspected by authorized personnel.

- e. The student is responsible for obtaining the withdrawal form from the Guidance Office on his/her last day of attendance and reporting to each teacher to return books and materials and to have teachers sign the release form. This form must then be returned to the guidance office.
 - f. All financial obligations to the school must be paid at the time of the withdrawal.
 - g. Please be prepared to provide the new home address and telephone number along with the name, address, and telephone number of the new school.
 - h. The student will be given a transfer card, a copy of their immunization record, and a copy of his/her schedule to take to the new high school. A copy of the latest report card will also be included if available.
2. **Transfer to CHS:** Students transferring into the district must have been transferred out of the previous school before scheduling enrollment appointments.
- a. The resident parent/guardian must be present for the enrollment.
 - b. The following documents must be obtained from the previous school: Transfer card, copy of their immunization card, transcript, last report card, current grades, and, if applicable, their special education records. Presenting these documents will assist the counselor in expediting the class scheduling process and the start date.
 - c. Parents/guardians are asked to bring in a copy of the student's birth certificate, proof of residency (lease, mortgage, major utility bill, or tax document), parent/guardian photo identification, and, if applicable, custody/guardianship or other legal paperwork.

CREDIT RECOVERY

Students who do not pass a required course(s) may be asked to complete either a virtual Credit Recovery Course, a credit recovery packet (not all CHS courses have this option), or re-enroll in the course during the school year if their schedule permits. CHS students who fail a course are encouraged to reach out to their School Counselor immediately to discuss options for credit recovery. Upon successful completion of a credit recovery packet/program, the student's Official Transcript is updated with the final grade/percentage, but the grade does not count towards the student's GPA, Class Rank, or Honor Roll.

INDEPENDENT STUDY

Courses may be taken by Independent Study with the approval of the Teacher, School Counselor, and an Administrator. All approved courses will be graded on a Pass/Fail basis. Therefore, the grade from the course cannot be used to determine GPA or class rank. Completion of the course will appear on the student's official transcript.

PROMOTION REQUIREMENTS

A student will be promoted to the next grade level based solely on the number of years attended at CHS. However, promotion to the next grade level is not indicative of the number of credits the student has earned.

Students in grades 9, 10, 11, and 12 must carry a minimum of 8 full-credit subjects per year. Should a student fail a course during the school year, it is recommended that the student meet with his/her School Counselor to discuss credit recovery options.

HOMEWORK PHILOSOPHY

It is the philosophy of Catasauqua High School that homework is an integral part of a sound education. Education that prepares students for life beyond the classroom necessitates that students be able to work independently beyond the normal school day.

It is the student's responsibility to make up homework that was missed due to absences. **The number of days for make-up work to be completed will be equal to the number of days of excused absences.** Each student should get his/her assignments upon returning to school. In the event of extended absences (four school days or more), parents should request homework assignments. Parents should request homework assignments by contacting their child's teachers directly through Email. Email addresses are available on the Catasauqua School District website at www.cattysd.org. Teachers will return assignments via email.

If internet access is not available, or the student will be absent for an extended period of time, parents should call the Guidance Office.

HOMEBOUND INSTRUCTION

A medical condition may arise which prevents a student from attending school for an extended period of time. In such circumstances, parents should immediately contact the Catasauqua High School Guidance Office. Homebound instruction may be available if the following two criteria are met:

1. A “Request for Homebound Instruction” validated by a doctor must be presented to the Guidance office. This form describes the student’s medical condition, the reasons why the student is not able to attend school, and the start and completion dates must be included. Board of Education approval is required for homebound instruction. For additional guidelines, please refer to the Student-Parent Handbook.
2. The doctor must recommend that the student remain out of school for a *minimum* of four (4) weeks to qualify. *For an extended illness, an additional doctor’s note will be required every six weeks.*

Homebound instructors will then be scheduled to meet with the student at their home for one hour per week in each major subject area for a maximum of five (5) hours per week. A parent/guardian must be present in the home at the time the instructor will be tutoring. Students and parents must understand that one hour of instruction time per week in each subject area is not sufficient time to complete all work and that extra time and effort will be required to complete all course requirements when the student is able.

PROGRAM AND/OR COURSE CHANGES/DROP/ADD PROCEDURES

The course selections made by students in the second semester for the next school year, determine the master schedule, which, in turn, determines the number and types of teachers we utilize and the kinds and the amount of materials (textbook, shop supplies, etc.) purchased. It is important that the student and his/her parents carefully select a program of studies that is best suited for the student’s needs and ability level. A program evolved after careful study and consultation with teachers, counselors, and parents should require *no major change*.

Students are responsible for the courses they select. The *Course Registration Form* is a “pledge” with the school. The school will attempt to schedule the courses that the students select. Time will be provided for schedule change requests, which will be considered on a case-by-case basis. After the August deadline for schedule changes, the school will ask that students honor the “pledge” they made at course selection time.

Students who wish to initiate a change in their original course requests are urged to do so prior to the end of this school year when we plan to issue preliminary schedules for next year. Requests for schedule changes cannot be delayed until the school year begins in September. Any changes requested after the start of the school year will only be permitted with administrative and guidance approval. No schedule change requests will be honored 10 instructional days after the semester begins.

SPECIAL EDUCATION

Programs are provided for students who have been identified as in need of special assistance in order that they may develop educationally, socially, and vocationally. Identified students in this program who have an interest in vocational training may wish to consider the many programs offered at LCTI. A program is also available for students who have been identified as gifted.

GIFTED SERVICES

Gifted support services are available for students who qualify through the Multidisciplinary Evaluation (MDE) process. Catasauqua Area School District Gifted Support serves identified gifted students in grades kindergarten through twelve and facilitates screening of potential gifted students as well as those students being considered for acceleration. The district offers various gifted support options, including enrichment, acceleration, independent study, and special interest groups based on student need and as prescribed by the GIEP.

If you believe your child may be mentally gifted and requires support services, please speak to your child's teacher, guidance counselor, or principal and/or submit a parent referral for a gifted evaluation.

SCHEDULING PROCESS

Course selection is a very important activity for a high school student. The selection of courses and areas of concentration should be a combined effort involving the student, the parents, and the school staff. The student's core curriculum teacher will be required to initial course requests for the next year. This process attempts to ensure proper placement in courses most suited to the student's interests and abilities. Students are encouraged to arrange individual counseling sessions with their counselor to review their course selections and graduation progress. This will give each student an opportunity to speak privately with their counselor about selecting appropriate courses for career and college planning and to discuss their individual ability level as it relates to course difficulty.

Every attempt will be made to give students the courses they select, or if necessary, the alternate courses designated. Several factors will restrict what can actually be offered in the next year's schedule: teacher availability, facility availability, budgetary considerations, schedule conflicts, class size, and student interest. The burden of responsibility falls on the student in completing the *Course Registration Form* in PowerSchool. *Failure to complete the PowerSchool Course Registration in a timely manner will mandate that the guidance counselors complete the process.* In this case, the student will be required to accept the schedule established for him/her. Every CHS student should do their best to ensure completion of the course registration within the timeframe discussed with their school counselor.

The *Career Planning Guide* describes all courses contained in the Catasauqua High School Program of studies. However, not all courses may be offered during one school year/semester. The school reserves the right to cancel or postpone courses when insufficient enrollment, lack of physical facilities, and/or unavailability of teaching personnel necessitates such action.

Important: No sequential course will be scheduled unless the previous course has been successfully completed, e.g., Calculus cannot be taken until Pre-Calculus has been passed. This does not permit courses in the same department to be doubled up due to failure prior to the senior year. Doubling up in the senior year may only be permitted with prior administrative approval.

Students who wish to take honors level courses must have a final average of 90% or higher in order to be admitted to the next level honors course, i.e. – 90% in Physical Sci Honors 9 to be admitted into Biology Honors 10.

Students in a College Prep course who have a final average of 93% or higher may elect to take an honors course at the next level, i.e., 93% in CP Biology to Honors Chemistry. Likewise, students in Applied courses who have a final average of 93% or higher may elect to take the College Prep course at the next higher level, i.e., 93% in Applied Biology to take CP Chemistry. A teacher recommendation can also be a consideration for movement to a higher-level course.

Since CHS wants to encourage students to challenge themselves, those who fail to meet the grade requirements for honor course eligibility may gain entrance to these courses with approval from parents, faculty, guidance, and administration. Once approved, students must remain in the course for its duration.

ELECTIVES

In addition to the required subjects that all students must successfully complete for graduation, there are also many available elective subjects. Elective courses enable a student to select a program best suited to individual needs, interests, and abilities.

It is important, also, that students select electives needed for career and college planning. Elective areas of study include courses available in World Language, Business, Family and Consumer Sciences, Art, and Music. Additional courses are also available as electives in English, Social Studies, Math, and Science curriculums for interested students.

DUAL ENROLLMENT COURSES

Students seeking a more challenging curriculum can now enroll in available college courses at Catasauqua High School. Classes can be taken as part of the normal schedule. Credit for successful completion will be granted by the school district and the participating college. These college credits can then be transferred to a number of excellent colleges throughout Pennsylvania. Online courses for dual enrollment through LCCC are available upon prior approval from the student's Guidance Counselor and Principal. Offerings will depend upon teachers' availability and student interest. College-level coursework while earning both high school elective course credit (1 CHS credit per course) and college credit (typically 3 college credits). Dual enrollment courses are taught by the college's faculty. Successful completion of a dual-enrollment course may contribute to your Act 158 Graduation Requirement for either the Alternative Pathway or the Evidence-based Pathway. Meet with your counselor to learn more.

EARLY GRADUATION

The fourth year of high school shall not be required for graduation if the student has completed all requirements for graduation **and** attends a postsecondary institution and/or enters the workforce. Students anticipating graduating early will need to complete an [early graduation application](#) before Oct. 31. Students should see their guidance counselor before completing the form.

Consider the following before applying:

Students must meet the same graduation requirements as all eighth-semester graduates. Local honors (16 Honor Roll Award, Valedictorian, etc) may only be bestowed upon students who complete exactly eight full semesters of high school.

ATHLETIC ELIGIBILITY AND ACADEMIC STANDING

[See CASD Extra-Curricular Code of Conduct](#)

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Course Offerings

- o Master Catalog of Courses Offered

Art (see page 19)

705	Studio Sculpture and Ceramics	10-12	1.00
716	Exploring Mindful Art	9-12	1.00
717	Studio Drawing I	10-12	1.00
718	Studio Drawing II	10-12	1.00
719	Studio Painting	10-12	1.00
767	AP Studio Art Drawing	11-12	2.00

Business Information Technology and Career Education (see page 19-20)

248	Personal Finance	11	0.50
350	Career Skills	11	0.50
353	Sports and Entertainment Marketing	9-12	1.00
612	Accounting I	10-12	1.00
622	Accounting II	11-12	1.00
801	Teacher Assistant	11-12	1.00
802	Teacher Assistant II	11-12	1.00

Computer Science (see page 20)

460	Principles of Computer Science	9-12	1.00
475	Computer Science Discoveries	9-12	1.00
476	AP Computer Science	10-12	1.00
477	Computer Science Foundations – Sphero	9-11	1.00
479	AP Computer Science A (CSA)	10-12	1.00

English (see page 21-23)

040	English 9A	9	1.00
040B	English 9B	9	1.00
041	English 10A	10	1.00
041B	English 10B	10	1.00
100	English I Honors	9	1.00
102	Language Arts/Reading 9	9	1.00
103	English I	9	1.00
119	English II Honors	10	1.00
117	English II CP	10	1.00
115	English II Applied	10	1.00
139	English III Honors	11	1.00
138	English III CP	11	1.00
137	English III Applied	11	1.00
130	English 12 AP/Honors	12	1.00
133	English 12 CP	12	1.00
136	English 12 Applied	12	1.00
140	Journalism	10-12	1.00
146	Communication Through Multimedia Design	10-12	1.00
147	Creative Writing	9-12	1.00
148	Speech	10-12	1.00

Family & Consumer Sciences (see page 23)

714	Food & Nutrition	10-12	1.00
720	Child Development	10-12	1.00

General Education (see page 23-24)

200	Freshman Focus: Success	9	1.00
281	P.A.E.S. Lab	9-12	1.0

Mathematics (see page 24-25)

050	Math 9A	9	1.00
050B	Math 9B	9	1.00
051	Math 10A	10	1.00
051B	Math 10 B	10	1.00
300	Algebra II 9 Honors	9	1.00
302	Algebra II	9-12	1.00
304	Algebra I CP	9	1.00
305	Algebra II CP	9-12	1.00
307	AP Calculus AB	12	1.00
310	Geometry Honors	10	1.00
311	Geometry CP	10	1.00
316	Algebra I	9	1.00
322	Trig./Advanced Algebra Honors	10	1.00
323	Trigonometry/Advanced Algebra	11-12	1.00
325	Pre Calculus Honors	11-12	1.00
326	Pre Calculus	11-12	1.00
330	Calculus Honors	12	1.00
337	Applied Geometry	10-11	1.00
341	Consumer Math	12	1.00
362	Pre-Algebra	9	1.00

Music (see page 26)

772	Concert Band	9-12	1.00
775	Chorus	9-12	1.00
790	Marching Band	9-12	1.00
792	History of Rock and Roll	9-12	1.00
793	Digital Music Composition	9-12	1.00
794	Guitar	9-12	0.50

Science (see page 26-28)

402	Earth Science I (Not offered 23-24)	9-11	1.00
408	Astronomy	10-12	1.00
410	Astronomy CP	10-12	1.00
412	Biology Honors	10	1.00
413	Biology CP	10	1.00
416	Applied Biology	10	1.00
417	Physical Science	9	1.00
418	Physical Science Honors	9	1.00
436	Anatomy and Physiology Honors	11-12	1.00
442	Chemistry I Honors	11-12	1.00
443	Chemistry I CP	11-12	1.00
448	Environmental Science	10-12	1.00
449	Marine Biology	10-12	1.00
450	Physics I CP	11-12	1.00
451	Earth Science II Honors	10-12	1.00
452	Chemistry II AP/Honors	12	1.00
453	Physics I Honors	11-12	1.00
456	Meteorology	9-12	1.00
464	Botany and Zoology	10-12	1.00

Social Studies (see page 29-30)

218	American History II Honors	9	1.00
219	American History II	9	1.00
226	World Cultures CP	10	1.00
227	World Cultures Applied	10	1.00
228	World Cultures AP	10-12	1.00
229	World Cultures Honors	10	1.00
230	World Geography	9-10	1.00
234	American Government	11-12	1.00

243	Introduction to the Social Sciences	10-12	1.00
244	World War II & The Holocaust	9-12	0.50
249	Entrepreneurship	10-12	1.00
251	Current Events for the Global Citizen	9-12	0.50
253	History of Sports	9-12	0.50
257	History of American Movies	9-12	0.50

Special Education

Life Skills Support

089	Life Skills Health I & II	9-12	1.00
092	Life Skills Lab	9-12	3.00
096	Life Skills English	9-12	1.00
097	Life Skills Math	9-12	1.00
098	Life Skills Social Studies	9-12	1.00
099	Life Skills Science	9-12	1.00

Other

095	Gifted		
037	Study Support		
093	CHS Life Skills Work Program		

Technology Education (see page 30)

820	TV Production	10-12	1.00
822	TV Production 2	12	1.00

Wellness/Fitness (see page 30-31)

897	Recreational Lifetime Activities	10-12	1.00
898	Personal Fitness	10-12	1.00
899	Team Sports	10-12	1.00
901	Wellness/Fitness 9	9	1.00

World Languages (see pages 31)

503	Spanish I	9-12	1.00
505	Spanish II	10-12	1.00
506	Spanish III Honors	10-12	1.00
507	Spanish IV Honors	11-12	1.00
513	German I (Online ONLY)	9-12	1.00
515	German II (Online ONLY)	9-12	1.00

Miscellaneous

Seniors may, with prior administrative approval, waiver part of the school day for specific reasons. Waivers are granted to CHS Seniors who have completed local graduation credit requirements. No student may have more than 2 course waivers per semester of their Senior year. See your counselor or an administrator for details.

870	Work Waiver	12	0.00
871	College Waiver	12	0.00
872	Special Waiver	12	0.00
880	Foreign Exchange	11-12	0.00
885	Independent Study	11-12	1.00
886	Independent Study	11-12	0.50

As described in the “Student – Parent Handbook,” independent study is offered to accommodate student interests in specific academic areas. The study proposal must be on a topic area exclusive of regularly offered and scheduled subject’s courses. A sponsoring teacher, guidance, the principal and the parents/guardians must approve a program.

s e c t i o n

3

Course Descriptions

- Specific information for each course offered at Catasauqua High School.

<u>Course</u>	<u>Grades</u>	<u>Credit</u>
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ART

705 Studio Sculpture & Ceramics	10-12	1.00
<p>This upper-level art course offers an opportunity for students who wish to create three-dimensional art. Emphasis is placed on form and function. Students will explore the element of form using a variety of materials such as paper, clay, plaster, and fibers.</p> <p>Prerequisite: Exploring Art</p>		
716 Exploring Mindful Art	9-12	1.00
<p>This course is designed for all levels of art makers. This course is intended to introduce and allow students to explore various art-making materials, tools, and techniques. While introducing all levels of art makers to the world of creating for well-being. Each lesson will begin with the student setting their own intention for creating meaningful works of art.</p>		
717 Studio Drawing I	10-12	1.00
<p>This course provides students an opportunity to expand on the concepts introduced in the Exploring Art course. Emphasis is placed on experiences with design vocabulary and principles, drawing techniques leading to the development of abilities that are necessary to build a foundation for the Drawing II, Painting and Advanced Placement Art courses. Prerequisite: Exploring Art is strongly suggested.</p>		
718 Studio Drawing II	10-12	1.00
<p>This is an advanced drawing course that will allow students to expand on their knowledge from the Drawing I course. Emphasis will be placed on two-dimensional design as well as reinforce the vocabulary and concepts learned in the Studio Drawing I course. The techniques and skills learned in this class will be necessary for students taking Advanced Placement Studio Art, which can be taken for college credit. Prerequisites: Studio Drawing I</p>		
719 Studio Painting	10-12	1.00
<p>A second year painting course that provides students an opportunity to expand on the concepts introduced in the Exploring Art course. Emphasis is placed on experiences with design vocabulary and principles, drawing techniques leading to the development of abilities that are necessary for the Advanced Art course. Prerequisites: Studio Drawing I</p>		
767 AP Studio Art Drawing	11-12	2.00
<p>The AP Studio Art course is designed for students who are seriously interested in the practical experience of art. AP Studio Art is not based on a written exam; instead, students will submit portfolios for evaluation at the end of the year. NOTE: The students that would want to take the AP Studio Art Track would have to take Drawing I, Drawing II, and two additional art courses. This course will be scheduled for two consecutive periods (double period). CHS' ability to offer this course is subject to teacher availability and student interest.</p>		

BUSINESS INFORMATION TECHNOLOGY AND CAREER EDUCATION

248 Personal Finance	11-12	0.50
<p>This half-semester course is designed to give students a general idea about budgets, income and wages, and borrowing through the lens of a personal financial statement. The focus of this course is to help students understand how to budget, how to obtain and manage credit, learn about buying a car, and identity theft. By learning these concepts, students should be better equipped to enter college or the labor force.</p>		
350 Career Skills	11	0.50
<p>This course will assist our students to develop skills to successfully apply for business/technical/trade schools, post-secondary schools, and/or a job. Career research, resume writing, interviewing techniques, and time management skills will be developed, and students will contribute artifacts to their online Career Portfolios. The students will also evaluate their interests, abilities, and skills as they relate to their prospective career path. Students are required to complete a Job Shadow Externship or Interview experience and are provided with the opportunity to complete a mock interview. Job Shadow Externships completed during this course that meet certain requirements may be used as an artifact towards the Act 158 Evidence-based Pathway for graduation.</p>		
353 Sports and Entertainment Marketing	9-12	1.00
<p>Sports and Entertainment Marketing will expose students to the basic functions of marketing through application to the sports and entertainment industries. Concepts to be studied include general marketing principles, the economic impact of marketing, product design, pricing strategies, branding/licensing, and promotions. Students will be asked to complete projects that demonstrate comprehension of marketing principles. Sports & Entertaining Marketing can provide a foundation for college-bound students anticipating majors in the business field.</p>		
612 Accounting I	10-12	1.00
<p>This course is designed as an introductory course in accounting. In this class, the student learns how to record and maintain a system of records for a business. The student learns such things as how to record invoices, write checks, and make statements. The entire accounting cycle is presented. Students are also taught the maintenance of accounting records using computers.</p>		
622 Accounting II Honors	11-12	1.00
<p><i>[Prerequisite: Accounting I with an 80% average/better]</i></p>		

This course is designed as an advanced course in accounting. Students who take this course should have a thorough understanding of the principles presented in Accounting I. This course gives the student an in-depth look at the accounting systems of partnership and corporate forms of business. Much of the work is done on an individualized basis. Two practice sets are required.

801 Teacher's Assistant Program **11-12** **1.00**

This is an internship designed for students interested in education. A highly-structured, sustained career preparation work experience opportunity in which students work with a CASD educator for one semester to participate and observe work. Students explore a career in education to help them make informed decisions regarding careers while networking with local educators, organizations, and professions. This is an unpaid internship. Students report to their chosen and approved location every school day during their scheduled block. In addition to the technical skills related to the career, student interns learn valuable Employability Skills that all employers are looking for, including: Communication, Professionalism, Leadership, and Time Management.

802 Teacher's Assistant Program II **11-12** **1.00**

This internship is designed to expose students interested in education to a new teaching and learning environment.

A highly-structured, sustained career preparation work experience opportunity in which students work with a CASD educator for one semester to participate and observe work. Students explore a career in education to help them make informed decisions regarding careers while networking with local educators, organizations, and professions. This is an unpaid internship. Students report to their chosen and approved location every school day during their scheduled block. In addition to the technical skills related to the career, student interns learn valuable Employability Skills that all employers are looking for, including Communication, Teamwork, Leadership, and Problem Solving.

XXX Career Internship Program **11-12** **0.25-2.00**

[Prerequisite: 16 years of age and a social security card]

Internships are highly-structured, sustained career preparation work experience opportunities in which students are placed at a workplace for a defined period to participate and observe work within a given industry. Learning objectives are specified and student performance is assessed. Students earn academic credit, giving the student a broad overview of the career area. One quarter credit is granted by CASD for every 30 hours spent at the internship site. The hope is for students to explore an occupation to help them make informed decisions regarding careers while networking with community businesses, organizations, and professions. Internships can be paid or unpaid. Students are permitted to work during the school day for a semester, academic school year, or over the summer. Student internship schedules are developed collaboratively by the business, the student intern and Catasauqua's Career Facilitator. In addition to the technical skills related to the career, student interns learn valuable Employability Skills that all employers are looking for, including: Communication, Teamwork, Leadership, and Problem Solving.

COMPUTER SCIENCE

460 Principles of Computer Science  **9-12** **1.00**

Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Computer Science Principles also give students the opportunity to use current technologies to create computational artifacts for both self-expression and problem-solving. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science.

475 Computer Science Discoveries **9-12** **1.00**

Computer Science Discoveries is an introductory computer science course. Mapped to CTSA standards, the course takes a wide lens on computer science by covering topics such as problem-solving, programming, physical computing, user-centered design, and data while inspiring students as they build their own websites, apps, animations, games, and physical computing systems.

476 AP Computer Science  **10-12** **1.00**

Advanced Placement Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. Advanced Placement Computer Science Principles also gives students the opportunity to use current technologies to create computational artifacts for both self-expression and problem-solving.

477 Computer Science Foundations – Sphero **9-12** **1.00**

This course is a supplemental, standards-aligned curriculum designed to be taught in the classroom alongside the Sphero BOLT robots. Students will explore STEAM principles through creative coding. By the end of the course, students will demonstrate a mastery of block programming by manipulating sensors, loops, conditionals, variables, and functions. Students will be able to develop complex programs with the Block Canvas and rewrite simple block programs in JavaScript. This course is designed to be independent of our other Computer Science course offerings. No prerequisites required.

479 AP Computer Science A (CSA)  **10-12** **1.00**

Computer Science A (CSA) introduces students to software engineering and object-oriented programming and design using the Java programming language. This curriculum covers a broad range of topics, including 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. This course requires the completion of an introductory Computer Science course such as Computer Science Principles or Computer Science Discoveries; previous experience using Java or Java Script is suggested, and the completion and highly comprehended base knowledge of Algebra 1 is suggested by the College Board in order to find success in this course.

ENGLISH

040 English 9 A

9

1.00

The course curriculum stresses the basics of grammar and proper word usage. Topics include parts of speech, parts of a sentence, agreement of subject and verb, and correct use of verbs. Additional ELA skills are studied from the literary works used. High-interest novels, short stories, and nonfiction with grade-level reading are used. This course follows the first half of the English I curriculum/content. Students will be enrolled in this course based on 8th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments.

040B English 9 B

9

1.00

The course curriculum stresses the basics of grammar and proper word usage. Topics include parts of speech, parts of a sentence, agreement of subject and verb, and correct use of verbs. Additional ELA skills are studied from the literary works used. High-interest novels, short stories, and nonfiction with grade-level reading are used. This course follows the second half of the English I curriculum/content. Students will be enrolled in this course based on 8th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments.

041 English 10 A

10

1.00

The course curriculum stresses the basics of grammar and proper word usage. Topics include parts of speech, parts of a sentence, agreement of subject and verb, and correct use of verbs. Additional ELA skills are studied from the literary works used. High-interest novels, short stories, and nonfiction with grade-level reading are used. This course follows the first half of the English II curriculum/content. Students will be enrolled in this course based on 9th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments.

041B English 10 B

10

1.00

The course curriculum stresses the basics of grammar and proper word usage. Topics include parts of speech, parts of a sentence, agreement of subject and verb, and correct use of verbs. Additional ELA skills are studied from the literary works used. High-interest novels, short stories, and nonfiction with grade-level reading are used. This course follows the second half of the English II curriculum/content. Students will be enrolled in this course based on 9th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments. Students enrolled in English 10 B will take the Literature Keystone Exam in the associated semester he/she takes this course.

100 English I Honors



9

1.00

[Prerequisite: To be eligible for English 9H, a student must have earned a 90% or above in 8th grade English.]

The ninth-grade honors English curriculum places an emphasis on writing. Writing is done on a regular basis. Assignments may include book reports, journals, and themes related to the literature studied. Students are expected to do a substantial amount of reading in a variety of literary genres: short story, novel, drama, and poetry. Short stories are taken from different anthologies as well as the main texts that are used. Possible novel titles include: *The Adventures of Tom Sawyer*, *Animal Farm*, *The Hound of the Baskervilles*, *Of Mice and Men*, *The Outsiders*, *For One More Day* and *Divergent*. The major drama covered is Shakespeare's *Romeo and Juliet*. Vocabulary study is an integral part of the curriculum, and is taken from Joseph Orgel's *Building an Enriched Vocabulary*. Words may also be taken from different works studied. A research paper utilizing MLA format is required.

102 Language Arts/Reading 9

9

1.00

This course is designed to increase the amount of time students have to focus on basic reading fluency, word recognition, vocabulary, and comprehension skills. content includes a reintroduction to various reading strategies as well as grammatical and phonetic skills within the content area students will read a variety of literary genres: short story, novel, play, and poem students will be enrolled in this course based on 8th grade teacher recommendations, PSSA Reading Scores, Keystone Exam Results, or Curriculum Based Assessments. This course will count as a 1 credit elective.

103 English I



9

1.00

[Prerequisite: To be eligible for English 9 CP, a student must have earned an 80% or above in 8th grade English.]

The ninth grade college prep curriculum places emphasis on improving the reading ability and comprehension of its students. Students are expected to do a substantial amount of reading in a variety of literary genres: short story, novel, drama, etc. Short stories are taken from different anthologies as well as the main texts that are used. Possible novel titles include: *Across Five Aprils*, *Hound of the Baskervilles*, *The Adventures of Tom Sawyer*, *Monster*, *The Pearl*, and *Animal Farm*. The major drama covered is Shakespeare's *Romeo and Juliet*. Vocabulary study is an integral part of the curriculum. Lessons 1- 10 are covered in Joseph Orgel's *Building an Enriched Vocabulary*. Words may also be taken from the different works studied. Formal grammar and usage is covered in some detail. The basic text is Warriner's *English Grammar and Composition (Level Three)*. Writing is done on a regular basis. Assignments include book reports, journals, and themes related to the literature studied. A research paper utilizing MLA format is required.

119 English II Honors



10

1.00

[Prerequisite: To be eligible for English 10 Honors, a student must have earned a 90% or above in English 9 Hon. or a 90% or above in English 9 CP.]

The tenth grade honors English curriculum is designed for highly motivated and/or gifted students. The course will be demanding in terms of time (and depth of thought) put forth on the part of teacher and student. It is assumed that most of the students in this course will go on to further their education. Therefore, the content and amount of work done in both reading and writing will be heavier than in a normal college prep course. This type of course allows creativity and analytical thinking to be maximized. Above all, as sophomores in an honors program, these students should be better prepared to teach themselves, gain self-knowledge, and grow in their understanding of how humans communicate effectively in all types of ways. Some of the possible novels that may be covered include: *Lord of the Flies*, *The Catcher in the Rye*, *To Kill a Mockingbird*, *A Separate Peace*, *Tuesdays with Morrie*, *The Five People You Meet in Heaven* and *Night*. Short stories are taken from different anthologies as well as the main texts that are used. Drama will also be covered. The texts read may include: *Our Town* and one of the works by William Shakespeare. Vocabulary study is an integral part of the curriculum, and is taken from Joseph Orgel's *Building an Enriched Vocabulary*. A persuasive MLA research paper is also required.

117 English II CP**10****1.00**

[Prerequisite: To be eligible for English 10 CP, a student must have earned an 80% or above in English 9 CP or a 90% or above in English 9 Applied.]

The curriculum for the 10th grade college prep course focuses on the study of a variety of novels, plays, short stories and poems. Some of the writers who may be studied include Harper Lee, John Knowles, Elie Wiesel, Agatha Christie, Alice Sebold, Reginald Rose, Thornton Wilder, Lorraine Hansberry, and William Shakespeare. Novels may include: *To Kill A Mockingbird*, *A Separate Peace*, *Night*, *And Then There Were None* and *The Lovely Bones*. Plays may include: *Twelve Angry Men*, *Our Town*, *A Raisin in the Sun* and *Julius Caesar*. The works selected are intended to help students build on their reading and comprehension skills while challenging students to think critically about the subject matter. Writing is an important component of the curriculum, and many of the writing assignments are related to the literature being studied. A research paper utilizing MLA documentation is also required. Vocabulary study is an integral part of the curriculum and will be studied on a regular basis; Joseph Orgel's *Enriched Vocabulary* is used as the basic text.

115 English II Applied**10****1.00**

The curriculum for the 10th grade applied course focuses on the study of a variety of novels, plays, short stories and poems. Some of the writers who may be studied include Elie Wiesel, Agatha Christie, Alice Sebold, Chris Crutcher, Laurie Halse Anderson, Lois Duncan, Reginald Rose, Lorraine Hansberry, and William Shakespeare. Novels may include: *Night*, *And Then There Were None*, *The Lovely Bones*, *Chinese Handcuffs*, *Speak* and *I Know What You Did Last Summer*. Plays may include: *Twelve Angry Men* and *A Raisin in the Sun*. The works selected are intended to help students build on their reading and comprehension skills while challenging students to think critically about the subject matter. Writing is an important component of the curriculum, and many of the writing assignments are related to the literature being studied. A research paper utilizing MLA documentation is also required. Vocabulary study is an integral part of the curriculum and will be studied on a regular basis; Jerome Shostak's *Vocabulary Workshop* is used as the basic text.

139 English III Honors**11****1.00**

[Prerequisite: To be eligible for English 11H, a student must have earned either a 90% or above in English 10H or a 90% or above in English 10 CP.]

This course is designed to challenge 11th grade Honor students. A variety of genres will be studied in depth, including fiction, nonfiction/memoir, drama, short stories, and poetry. Authors studied will include Ray Bradbury, Arthur Miller, Agatha Christie, Edgar Allan Poe, Stephen King, John Steinbeck, John Grisham, Frank McCourt, William Shakespeare, Mark Twain, Khaled Hosseini, and Sue Monk Kidd. Enrichment projects will conclude most of the major units. Students will be taught composition skills through a variety of persuasive and expository writing assignments. Most themes/essays/projects will be tied to the literature that is being studied at the time. Journals will be kept as a means of helping students develop fluency in their writing and to also develop their own "voice" and individual writing style. A research paper utilizing MLA style of documentation is required. It is a persuasive research paper and students will have to take a position on a contemporary social issue. Vocabulary study will be taken from Joseph Orgel's *Building an Enriched Vocabulary* as well as individual works studied. There will be ongoing practice and preparation for the Keystone Literature Exam throughout the year.

138 English III CP**11****1.00**

[Prerequisite: To be eligible for English 11CP a student must have earned either an 80% or above in English 10CP or a 90% or above in English 10 Applied.]

The curriculum for the 11th grade college prep curriculum focuses on a variety of novels, plays, stories, and poems. Some of the writers who may be studied include Ray Bradbury, Arthur Miller, Agatha Christie, Edgar Allan Poe, Stephen King, John Steinbeck, John Grisham, Frank McCourt, William Shakespeare, and Mark Twain. Plays include Miller's *The Death of a Salesman* and *The Crucible*. Two plays by Agatha Christie will also be read: *The Mousetrap* and the *Witness for the Prosecution*. Some of the novels that may be read include *Misery*, *Of Mice and Men*, *A Painted House*, *Angela's Ashes*, *Huck Finn*, *The Kite Runner*, *A Thousand Splendid Suns* and *The Secret Life of Bees*. Writing is an important component of the curriculum, and many of the writing assignments are related to the literature being studied. A research paper utilizing MLA documentation is required; the paper may be either persuasive or expository/informational. Students will also be required to keep a journal. Vocabulary will be studied on a regular basis. There will be ongoing practice and preparation for the Keystone Literature Exam throughout the year.

137 English III Applied**11****1.00**

The curriculum for English 126 stresses high-interest novels and stories that will engage the student and improve his/her reading skills. Some of the novels/plays that may be read include *The Secret Life of Bees*, *A Painted House*, *The Hunger Games*, *Catching Fire*, *The Mockingjay*, *Twisted*, *The Mousetrap*, and *The Kite Runner*. Writing assignments will primarily be response papers to the novels that are read, although there will also be some journal writing. Vocabulary study will be ongoing throughout the year, using words from the books read as well as Shostak's Level D Vocabulary Workshop. The course will use Study Island and other resources to help prepare the students for the Keystone Literature Exam.

130 English 12 AP/Honors**12****1.00**

[Prerequisite: To be eligible for English 12 AP/Honors, a student must have earned either a 90% or above in English 11H or a 90% or above in English 11 CP.]

This class is a challenging collegiate level course for seniors. The PA Writing Assessment Domain Scoring Guide will be used to evaluate student writings. Students will be required to explore British literature with selected readings from various time periods in a variety of genres/styles by various authors. Awareness of the interplay between works/historical contexts will be stressed, along with developing a working knowledge of literary conventions and rhetorical strategies employed by these writers. Students will be asked to read closely, carefully, and analytically. The students will be encouraged to use effective persuasive techniques and textual citations to support oral and written interpretations of various texts. Novels may include: *The Green Mile*, *As I Lay Dying*, *Beloved*, *Brave New World*, *Seabiscuit*, and *1984*. A persuasive research paper done in the MLA style is required as well. Along with the normal workload in college prep courses, Honors/AP seniors will read a larger sampling of novels, nonfiction, poetry, and drama. Also, a survey of British Literature with at least one Shakespearean play will be covered. Furthermore, they will prepare themselves to take the AP Literature and Composition Exam in May by doing supplemental practice tests/essays and workbook and computer-aided study of sample questions from the AP exams provided by the College Board's Online Services and other publications.

133 English 12 CP **12****1.00**

The senior year is the last time most students will have any formal instruction or review of the English language. English instruction includes training in the fundamental arts of communication - speaking, listening, reading, writing, and observing. The course is planned to continue the somewhat more intensive and literary approach to English communications in both content and method. The college preparatory track will focus on writing in a variety of formats necessary for college level work (formal theme, literary criticism, research paper, precis, journal, etc.) Students will survey British literature in particular and enhance their ability to analyze and organize through writing and discussion. Novels may include: *The Green Mile*, *The Catcher in the Rye*, *Wuthering Heights*, *Brave New World*, *1984*, *Beloved*, and *The Elephant Man*. Literary terms and vocabulary work necessary will be stressed to give students an adequate background for college studies.

136 English 12 Applied**12****1.00**

The curriculum for 12th grade Applied English focuses on the study of American and British Literature primarily through the reading of novels, plays, and short stories. The following works may be included: *Ellen Foster*; *The Miracle Worker*; *The Green Mile*, *Catcher in the Rye*, and plays by Agatha Christie. The works selected are intended to help students build on their reading comprehension skills with a variety of activities and presentations. The course includes vocabulary units designed to expand students' knowledge and understanding of the language. The course will also assist students in developing their research and writing skills in order to prepare them for the completion of a senior research paper. Finally, various grammar concepts will be reviewed to prepare students for their future endeavors at college or in the work world.

140 Journalism **10-12****1.00**

The student who selects Journalism will take an active role in the production of *The Brown and White*. Students will gain proficiency in desktop publishing and will participate in all portions of production: taking photographs, writing copy, laying out pages, editing, soliciting advertisers, etc. *Students are expected to do a fair amount of work outside normal school hours. Permission of the instructor is required for this course to ensure needed skills; aptitude, attitude and dedication are present.*

146 Communication through Multimedia Design**10-12****1.00**

In this communications course, students will use applications from the Adobe Creative Cloud suite to assist in the publication of the school newspaper. Emphasis will be placed on Photoshop and InDesign programs, but other applications in the suite will be used as needed. Photography skills will also be addressed, with selected images being used in the publication. Students will experience real-life situations as they use industry-grade programs to produce a newspaper.

147 Creative Writing **11-12****1.00**

This course is designed to enhance students' awareness of and skill in using the elements of literature. Students will complete a number of original writings in a variety of traditional and contemporary forms and styles. The class will discuss its own creative work and a wide variety of anthologized writings in a workshop setting.

148 Speech**10-12****1.00**

[Prerequisite: English I]

Students will experience and use techniques involved in speaking situations. They will be introduced to the various purposes of speaking to an audience (i.e., inform, convince, entertain, impress, motivate, etc.). Methods of speech presentations will involve impromptu, scripted speeches, as well as debate. Instruction will be provided in gathering material necessary for some of the speech situations. Students will have the opportunity to evaluate famous speakers to analyze their style and performance.

FAMILY and CONSUMER SCIENCES

714 Food & Nutrition**10-12****1.00**

Food and Nutrition includes basic studies in kitchen principles, recipe skills, and cooking methods with an emphasis on baking. Students will study the selection, preparation, and serving of bread, cakes, cookies, and pies through theory and lab experiences. Personal values such as time, taste, cost, and nutrition and their impact on food choices are discussed throughout this course. Advanced studies in meal planning, selection, preparation, and serving of meats, poultry, fish, shellfish, eggs, grains, fruits, vegetables, and dairy cooking around the world and entertaining with food through theory and lab experiences. Possible career opportunities are also explored. Personal values such as time, taste, cost, and nutrition and their impact on food choices are discussed throughout this course.

720 Child Development I**9-12****1.00**

This course includes basic studies in child development with an emphasis on pregnancy, parenting, and the development of a child from birth to five years of age. Students will explore these topics through theory, work, and observation. This course is suggested for students interested in occupations involving children and/or students who are preparing for parenthood upon graduation from High School.

GENERAL EDUCATION

200 Freshman Focus: Success**9****1.00**

Freshman Focus offers a curriculum designed to help 9th graders make the transition smoothly and succeed in their new environment. Freshman Focus also offers options to benefit the entire school and build a positive culture where all students belong. Curriculum will cover the many social and academic issues and topics that students need to be successful in high school. Units are designed to build from one to the next in both content and rigor. Issues discussed in Freshman Focus correspond to events and activities happening at the school and in students' lives. This is a required course for all Freshman (exception: part-time LCTI student).

The PAES Lab is a converted classroom or a community site to a work development lab where students become employees and teachers become employers. Use this lab to assess a student's competitive work potential and interest level while simultaneously exploring various jobs, using real tools, and developing proper work behaviors in the following five areas: Computer Technology, Construction/Industrial, Processing/Production, Consumer/Service, and Business/Marketing

MATHEMATICS

050 Math 9 A

9

1.00

This course is designed to develop basic math skills for the learner. The students will also learn the first half of CHS's pre-algebra curriculum. Students will enhance their basic math skills, computation, calculator skills, study skills, and test-taking strategies. Students will be enrolled in this course based on 8th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments.

050B Math 9 B

9

1.00

This course is designed to develop basic math skills for the learner. The students will also learn the second half of CHS's pre-algebra curriculum. Students will enhance their basic math skills, computation, calculator skills, study skills, and test-taking strategies. Students will be enrolled in this course based on 8th grade teacher recommendations, PSSA Reading Scores, or Curriculum Based Assessments.

051 Math 10 A

10

1.00

This course is designed to develop basic math skills for the learner. The students will also learn the first half of CHS's algebra curriculum. It also includes working on maintaining basic math skills and computation, calculator skills, study skills and test-taking strategies. Students will be enrolled in this course based on 9th grade teacher recommendations, Keystone Exam Results, or Curriculum Based Assessments.

051B Math 10 B

10

1.00

This course is designed to develop basic math skills for the learner. The students will also learn the first half of CHS's algebra curriculum. It also includes working on maintaining basic math skills and computation, calculator skills, study skills, and test-taking strategies. Students will be enrolled in this course based on 9th grade teacher recommendations, Keystone Exam Results, or Curriculum Based Assessments. Students enrolled in MATH 10 B will take the Algebra Keystone Exam in the associated semester he/she takes this course.

300 Algebra II Honors 9



9

1.00

[Prerequisite: 8th grade Algebra I with a final grade of 90% or better or teacher recommendation]

Algebra II Honors is a course for 9th grade math students who were very successful in 8th grade Algebra I. Topics include Factoring, rational numbers, relations and functions, irrational numbers, quadratic equations, quadratic relations. This course provides a thorough preparation for Trigonometry/Advanced Algebra Honors and additional mathematics courses.

304 Algebra I CP



9

1.00

Skill development and methods of reasoning will be highly emphasized in the advancement of problem-solving strategies while using operations with real numbers and expressions, writing, solving, and graphing linear equations/inequalities, and systems of linear equations/inequalities, analyzing patterns and relations and interpreting and using linear functions and their equations, graphs, or tables. Coordinate geometry is utilized while describing, computing, and using rate of change (slope) of a line and analyzing and interpreting data on a scatter plot. Through data analysis, they will use measures of dispersion to describe a set of data, use data displays in problem-solving settings to make predictions and apply probability to practical situations.

305 Algebra II CP



9 & 11

1.00

[Prerequisites: Algebra I CP and Geometry]

Algebra II continues the study of Algebra by presenting new concepts and extending the basic topics of Algebra I. Topics to be studied include: review of solving equations and inequalities, solving systems of equations, solving verbal problems, polynomials, special products, and factoring. Other topics include graphing on the coordinate plane, algebraic fractions, functions, relations, irrational numbers, and the quadratic formula.

307 AP Calculus AB



12

1.00

This course is designed for the study of mathematical topics comparable to a first year calculus course in most colleges and universities. Upon successfully completing the AP exam at the end of the course, some institutions might offer college credit and allow students to begin the second year of the college sequence.

310 Geometry Honors









10

1.00

[Prerequisite: Algebra II H or Algebra I with a final grade of 90% or better]

The curriculum for this course will run parallel with the college preparatory course. However, the methods of reasoning and problem-solving skills will be strengthened through a deeper, more thorough, and rigorous exploration of the geometric concepts.

311 Geometry CP		10	1.00
<i>[Prerequisite: Algebra I C/P or Algebra B with a final grade of 90% or better]</i>			
Methods of reasoning through direct and indirect proofs will be established while identifying and using geometric properties of polygons, polyhedra, congruence, and similarity. Problem-solving skills will be strengthened by applying concepts of right triangles, distance, midpoint, slope, probability, and using, comparing, and developing procedures in determining area, perimeter, circumference, surface area, and volume using coordinate geometry and measurement.			
316 Algebra I		9	1.00
This course is a continuation of Algebra A and is designed to apply additional algebraic concepts to real-world situations. Topics to be offered include coordinate geometry, systems of equations, polynomials, factoring, quadratics, powers and roots, functions, rational expressions, statistics and probability, and geometry concepts. <i>The work done in this course, coupled with the previous successful completion of Algebra A will allow the student to meet the Algebra I requirement for graduation.</i>			
322 Trig./Adv. Algebra Honors		10-11	1.00
<i>[Co-requisite: Geometry Honors. Prerequisite: Algebra II Honors]</i>			
This course includes the study of both Trigonometry and Advanced Algebra topics. Trigonometry includes the study of the six trigonometric functions: right triangle trigonometry, radian measure, graphing trigonometric and inverse functions, trigonometric identities, solving trigonometric equations and working with oblique triangle trigonometry. Advanced Algebra continues the study of Algebra with topics covering rational, irrational, and complex numbers. This course is recommended for students planning to attend college or technical school.			
323 Trig./Adv. Algebra CP		11-12	1.00
<i>[Prerequisite: Geometry CP or Honors & Algebra II CP or Honors]</i>			
This course includes the study of both Trigonometry and Advanced Algebra topics. Trigonometry includes the study of the six trigonometric functions, right triangle trigonometry, radian measure, graphing and inverse functions, trigonometric identities, and solving trigonometric equations. Advanced Algebra continues the study of Algebra with topics covering properties, graphs, and equations of exponential and logarithmic functions, natural logarithms, graphs of inverse variations and rational functions, and arithmetic and geometric sequences and series.			
325 Pre Calculus Honors		11-12	1.00
<i>[Prerequisite: Geometry, Algebra II, Advanced Algebra, Trigonometry]</i>			
This course includes the detailed study of both Trigonometry and Advanced Algebra topics. Included topics in Trigonometry are Trigonometric Identities, Sum and Difference formulas, Double-Angle formulas, Product-to-Sum formulas, Solving Trigonometric Equations, Solving Right Triangles, The Law of Sines and Cosines, Area of a Triangle, and Sinusoidal Graphs. Other included topics are Polar coordinates and graphs, the Complex Plane, Vectors, Conic sections and an introduction to Calculus.			
326 Pre Calculus		11-12	1.00
<i>[Prerequisite: Geometry, Algebra II, Advanced Algebra, Trigonometry]</i>			
This course includes the detailed study of both Trigonometry and Advanced Algebra topics. Included topics in Trigonometry are Trigonometric Identities, Sum and Difference formulas, Double-Angle formulas, Product-to-Sum formulas, Solving Trigonometric Equations, Solving Right Triangles, The Law of Sines and Cosines, Area of a Triangle, and Sinusoidal Graphs. Other included topics are Polar coordinates and graphs, Vectors, Conic sections and an introduction to Calculus.			
330 Calculus Honors		12	1.00
<i>[Prerequisite: Geometry, Trigonometry, Algebra II CP or Honors, and Pre Calculus]</i>			
This course is the culmination of the high school college preparatory mathematics and math analysis program. It includes the study of limits of functions, derivatives and their uses, integrals and their uses, and the use of calculus in solving practical problems. Much emphasis is placed on functions, functional theory, graphs, and solving situations.			
337 Applied Geometry		10	1.00
This course will focus on methods of reasoning used in direct and indirect proofs. Students will be able to identify and apply geometric properties of lines, polygons, and congruence. Problem solving skills will be strengthened by applying concepts of distance, midpoint, slope and probability. The students will use procedures to determine area, perimeter, and circumference relating to coordinate geometry and measurement.			
341 Consumer Math		12	1.00
This course is designed to expose students to business and consumer mathematics procedures. Topics to be discussed include: review of whole numbers, fractions, decimals, and percentage operations, statistics, banking procedures, payroll, discounts, simple and compound interest, annuities, consumer credit, depreciation, insurance, taxes, stocks and bonds.			
362 Pre-Algebra		9	1.00

NOTE: THIS COURSE IS NOT AVAILABLE FOR STUDENTS WHO HAVE COMPLETED ALGEBRA 1.

This course will prepare students with the skills needed for success in Algebra 1. For this course, students should possess a strong foundation of Pre-Algebra concepts such as operations with real numbers, order of operations, and solving linear equations. Students will develop an understanding of various math skills such as solving linear and absolute value equations and inequalities, radicals, exponent rules, graphing, absolute value equations and inequalities, systems of equations and inequalities, analyzing graphs and statistics. The topics covered include theory as well as practical and real-world applications.

MUSIC

772 Concert Band

9-12

1.00

Open to all students interested in being instrumentalists in the Catasauqua High School Band to experience music through the performance medium. Students must have previous experience with the instrument they are performing on.

775 Chorus

9-12

1.00

Open to all students interested in singing in the Catasauqua High School Chorus to experience music through the performance medium.

790 Marching Band

9-12

1.00

Students will start studying the different concepts that go into creating a successful marching band and show. We will study drill writing, an effective staff, creating successful shows, recruitment plans, rehearsal techniques, student leadership, the importance of a booster program, and color guard concepts. In the end, the students will be putting together an entire band program, starting from creating the schedules and show concepts all the way to creating the field show drill.

792 History of Rock and Roll

9-12

1.00

The course will be looking at the evolution of Rock n' Roll starting with its origins and moving through the decades and its different genres. Students will be looking at a lot of the different groups and analyze their success and failures throughout their careers. We will also be taking the music of each decade and discussing the similarities and differences between the decades of music and how it affects the culture during that time.

793 Digital Music Composition

9-12

1.00

Students will study the rules of part-writing and, in the end, be able to compose simple compositions. The course will analyze music selections and the work of various composers as well as train the students' listening skills to identify intervals, chord progressions, simple melodies, and types of chords that make music what it is. Students will work with the program entitled GarageBand as they create music for different aspects of culture. They will study the different uses of the program and how to manipulate music to reach the goal that is desired.

794 Guitar

9-12

0.50

This 9-week course is designed for students with no previous guitar experience. Students will receive guidance and direction in solving problems related to playing the guitar at a beginning level and will learn many of the different styles, skills, and techniques required to become a successful guitarist. Areas of concentration include: correct posture, note reading, aural skills, flat-picking, tab reading, rhythmic patterns, chord study, musical forms, and lifestyles of famous guitarists.

SCIENCE

402 Earth Science I (NOT OFFERED 23-24)



9-10

1.00

The college preparatory course presents students with an Earth systems approach to scientific inquiry. The course is designed to introduce the interdependence of the Earth's major subsystems: lithosphere, biosphere, hydrosphere, atmosphere, and cryosphere. This course is offered every other school year.

408 Astronomy

10-12

1.00

[Prerequisite: Algebra I]

This semester course provides a conceptual overview of current astronomical knowledge. Students start by making simple observations of the night sky and relating these to the movements of the moon and planets. Findings of the most recent space probes are used to study major and minor objects in our solar system. Other topics covered include the structure and composition of the sun, stars and stellar evolution, constellations, galaxies, the history and structure of the universe, and cosmology.

410 Astronomy CP



10-12

1.00

[Prerequisite: Algebra I]

This semester course provides an overview of current astronomical knowledge. Students will use knowledge of algebra and trigonometry to determine basic measurements of the earth and solar system. Findings of the most recent space probes are used to study major and minor objects in our solar system. Other topics covered include the structure and composition of the sun, stars and stellar evolution, star groups including galaxies, the history and structure of the universe, and cosmology.

412 Biology Honors



10

1.00

[Prerequisite: 9th grade Science with a final grade of 90% or higher or science teacher recommendation]

Honors Biology is an accelerated biology course. This is a rigorous course designed to emphasize the molecular, biochemical and cellular aspects of biology. While the course will cover the same general topics as Biology 413, each area will be covered in greater detail and at a faster pace. Students should expect a greater workload with more reading and research assignments.

413 Biology CP



10

1.00

[Prerequisite: 9th grade Science with a final grade of 80% or higher]

This program of science is designed to prepare students for college-level work in the area of biology. The course is geared to impart basic knowledge in the areas of molecular and cellular biology. Initial emphasis in these areas provide the foundation for investigating other aspects of biology including: genetics, reproduction, microbiology, evolution, plant and animal classification and ecology. The program is laboratory oriented to develop biological techniques and integrates various aspects of other disciplines to make concrete the information imparted in lecture. Students are expected to develop logical thinking, communication skills, and math skills through reporting on laboratory findings. Advances in the area of biology are addressed to further aid in the development of student interest and competence in this science.

416 Applied Biology  **10** **1.00**

The course is geared to impart basic knowledge in the areas of molecular and cellular biology. Initial emphasis in these areas provides the foundation for investigating other aspects of biology including genetics, reproduction, microbiology, evolution, plant and animal classification, and ecology. The development of an appreciation and basic understanding of the role of biology in our everyday lives is a key objective of this course. Laboratory work is used to provide students with hands-on experience in selected areas of biology. Students are expected to develop logical thinking, communication skills, and math skills through reporting on laboratory findings. In addition, advances in the area of biology are addressed to further aid in the development of student interest and competence in this selection.

417 Physical Science  **9** **1.00**

Physical science is a first-year course for high school freshmen. It emphasizes the advanced application and science skills needed to understand the physical world we live in. Students will utilize technology, laboratory activities, problem-solving and critical-thinking skills to enhance understanding and application of scientific reasoning. Students will learn the basic concepts of Newton's laws, energy, light, the structure of matter, chemical equations, etc.

418 Physical Science Honors  **9** **1.00**

Physical science is a first-year course for high school freshmen. It emphasizes the advanced application and science skills needed to understand the physical world we live in. Students will utilize technology, laboratory activities, problem-solving and critical-thinking skills to enhance understanding and application of scientific reasoning. Students will learn the basic concepts of Newton's laws, energy, light, the structure of matter, chemical equations, etc.

436 Anatomy and Physiology Honors  **11-12** **1.00**

The Course provides students, primarily in health-related programs, with an in-depth understanding of the anatomy and physiology of complex living organisms, including humans. Biological principles, as well as the structural and functional relationships among several organ systems, are discussed. examine the interrelationships between anatomy and physiology in complex organisms, primarily human beings. It is aimed predominantly at students pursuing health-related programs. The course covers the following systems: Cardiovascular, Lymphatic, Endocrine, Respiratory, Digestive, Urinary, and Reproductive, as well as nutrition and metabolism, and fluid and electrolyte balance. Detailed laboratory coverage accompanies the lecture portion of this course. Examine the interrelationships between anatomy and physiology in complex organisms, primarily human beings. It is aimed predominantly at students pursuing health-related programs. The course covers the following systems: Cardiovascular, Lymphatic, Endocrine, Respiratory, Digestive, Urinary, and Reproductive, as well as nutrition and metabolism, and fluid and electrolyte balance. Detailed laboratory coverage accompanies the lecture portion of this course. (Considerable dissection is required.)

442 Chemistry I Honors  **11-12** **1.00**

[Prerequisite: students in the honors sequence or science teacher recommendation]

Honors Chemistry I is an in-depth study of the basic concepts of Chemistry. This course is intended for students in the College Prep curriculum. The course deals with the fundamentals such as Matter and Energy, Atomic Structure, Chemical Bonding, Nomenclature, Stoichiometry, Equation Writing and Principles of Chemical Reactions and basic Nuclear Reactions. Lectures and discussion are strongly supplemented by relevant Laboratory experiences on a weekly basis. The Honors Chemistry student will be expected to understand, apply, analyze and interpret concepts and principles discussed in both written and oral form.

443 Chemistry I CP  **11-12** **1.00**

This course is designed to give students a basic understanding of the basic concepts and principles of Chemistry. This course is intended for the College Prep student who has not taken or does not intend to take Applied Chemistry. The course deals with the introduction of fundamentals such as Matter and Energy, Atomic Structure, Chemical Bonding, Nomenclature, Stoichiometry, Equation Writing and Principles of Chemical Reactions. Students will have one laboratory experience per week which will require students to work in small groups and communicate their ideas clearly and logically in the form of a written lab report. It is the objective of this course to promote an appreciation of Chemistry and the role it plays in their daily lives.

448 Environmental Science  **10-12** **1.00**

Environmental science is the study of patterns and processes in the natural world and their modification by human activity. To understand current environmental problems, we need to consider physical, biological and chemical processes that are often the basis of those problems. This course will give you the skills necessary to address the environmental issues we are facing today by examining scientific principles and the application of those principles to natural systems. This course will survey some of the many environmental science topics, ultimately considering the sustainability of human activities on the planet. Environmental impacts on Earth come from the number of people and the amount and types of resources that they use. By applying scientific principles and considering real-world examples, we will examine: the field of environmental science and how to think like an environmental scientist; the human population and the ways in which changes in the population affect the environment; agriculture, soils and the environmental implications of eating meat, vegetables, local, organic, sustainable, industrial and other types of food; non-renewable fossil fuels with a focus on coal, petroleum and natural gas and the benefits and consequences of using each; renewable fuels such as wind and solar and identify that even renewable "green" energy sources have impacts as well as benefits; and biodiversity and global change, which are the integrating units of environmental science.

449 Marine Biology **10-12****1.00**

The goal of the Marine Biology curriculum is to give students a broad overall understanding of marine ecology, taxonomy, and diversity. This course is designed to develop students' appreciation and understanding of marine biology. Students will learn about the diverse groups of marine organisms, a variety of ecosystems, and current events in today's oceans, such as overfishing and ocean acidification. Through lectures, readings, projects, labs, and discussions, students will learn about the diversity of ocean environments and how the organisms that live there have adapted to survive. The class will stress hands-on learning with labs, projects, and demonstrations. Students will acquire an understanding of oceanography and how the environment affects ocean health and plays a significant role in the survival and lifestyle of the organisms that live there.

450 Physics I CP **12****1.00**

This college prep course allows students to gain an understanding of the basic concepts of Physics through work descriptions and visualization. Only secondary emphasis is placed on mathematics. It is intended for the college-bound, non-science/mathematics major. Students will study the areas of mechanics, properties of matter, heat sound, electricity, magnetism, light and atomic and nuclear physics. Laboratory activities emphasize the use of a computer-based data collection system for measurement and calculation.

451 Earth Science II Honors **10-12****1.00**

Honors Earth II is designed to develop and reinforce science content knowledge and scientific thinking. It is designed to be a challenging and in-depth look at interrelationships between Earth's composition, structure, processes, and history within Earth's atmosphere, biosphere, geosphere, and hydrosphere. Students will demonstrate problem identification and solution while developing skills in critical thinking, collaboration, information technology, and global awareness. Objectives that focus on applying, analyzing, evaluating and creating will allow students to not only see the role scientific evidence and thinking play in developing a new and deeper understanding of their surroundings, but also provide ownership of that new understanding. This course is offered every other school year.

452 Chemistry II AP/Honors **11-12****1.00**

[Prerequisite: CP or Honors Chem. I with a final average of 85% or teacher recommendation]

This course is for the highly motivated college-bound student with or without plans for a career in science. The course is an in-depth study of the advanced chemistry topics not covered in Chemistry I. It is a second year chemistry course covering concepts normally taught in the freshman year of college. Fundamental chemical concepts are studied but not limited to the structure and states of matter, the nature of reactions, solutions, neutralization, thermodynamics and kinetic, oxidation-reduction reactions, chemical equilibrium, Gas Laws, basic organic and nuclear chemistry, and descriptive features of classes of elements and compounds and the associate chemical calculations. The course strongly emphasizes the development of the student's ability to think clearly and logically and to express ideas orally and in written form. Laboratory experiments of both a qualitative and quantitative nature are an integral part of the course. The course emphasizes independent thinking, self-motivation and disciplined work habits.

453 Physics I Honors **11-12****1.00**

[Prerequisite: Algebra 2]

The course is a rapidly paced introduction to Physics. It is intended for students planning to pursue college majors that traditionally include extensive Physics application, for example: Engineering, Medicine, and specific science majors. This course requires students to have a strong mathematics background. Students study the areas of mechanics, properties of matter, heat sound electricity, magnetism, light, and atomic and nuclear physics. Laboratory activities emphasize creative scientific investigation, the use of a computer-based data collection system for measurement and calculation, and the use of spreadsheets to analyze data.

456 Meteorology **9-12****1.00**

This course is an introductory course to meteorology. The emphasis of this class is dedicated to examining the atmosphere of our planet and the different types of weather that we observe on a daily basis. From tornadoes to blizzards to droughts, to hurricanes, this course will examine numerous aspects of the weather that affect Earth. Basic concepts in physical science will be tied into this class to demonstrate how Meteorology connects to the other sciences. By the end of this course, students will have the basic knowledge required to be active observers of weather and will understand the root causes of various types of weather phenomena.

464 Botany and Zoology **10-12****1.00**

This course involves an in-depth study of how plants and animals have adapted to their habitats and how natural selection contributes to adaptations. The focus of this lab-based course is an evolutionary history of life on earth coinciding with geological and environmental changes that have occurred over time. Studies may include, but will not be limited to, origins of life on Earth, origins of terrestrial life, comparative vertebrate studies, mammal diversity, primates and hominids, plant diversity, flowers, and arthropod and insect diversity. Students will dissect vertebrates and flowers as part of comparative studies, grow plants, and raise fruit flies.

SOCIAL STUDIES

218 American History II Honors  **9** **1.00**

[Prerequisite: To be eligible for American History II Honors, a student must have earned a 90% or above in 8th grade American History I.]

This course is a study of the domestic and foreign policy of the United States from the Reconstruction to the present.

Topics focus on the changing role of the United States in world affairs as well as the problems and opportunities stemming from economic change, civil unrest and political climates. Time periods included will be Reconstruction, Industrialization, Progressivism, World War I, the Roaring Twenties, the Great Depression, World War II, Civil Rights Movement, Vietnam, Watergate, and the War on Terror. The use of technological research and primary and secondary sources allow students the opportunity to critique and analyze American policy decisions. Assessments will include but are not limited to essay and short answer tests, individual and group projects, and at least one research paper is required in each of the first and second semesters.

219 American History II  **9** **1.00**

The period since 1865 has been a time of great political, economic, social, and cultural transition. Instruction for tenth grade Social Studies places emphasis upon the living experiences of American life, past as well as present, while inculcating the students with an insight into their historic traditions. To cope with the present, people need to know the conditions and changes in the past that have contributed to the situations of today and that will bear on those of tomorrow. An overview of various activities will focus on the development and improvement of reading skills, writing skills, study skills, and drawing conclusions. Although the textbook serves as a topical chronological guide, cooperative learning and audio-visual aids will be emphasized and encouraged, so as to motivate the students to recognize how their country emerged from discovery into a heterogeneous population that assumes leadership in today's modern world.

226 World Cultures CP  **10** **1.00**

[Prerequisite: Student must have earned a 90% or higher final average in American History II CP.]

The purpose of the course is to develop a greater understanding of the evolution of global processes and the interaction of different societies. This is accomplished through a multidisciplinary approach drawing on economics, geography, political science, sociology, and history. Assignments and activities would be geared for those planning on attending college, involving analysis, synthesis and higher level thinking skills.

227 World Cultures Applied **10** **1.00**

The purpose of the course is to give a cultural perspective and timeline on the major cultural movements through history. Assignments focus on factual information, compare and contrasting, geography skills and hands-on problem-solving projects related to the specific culture.

228 World Cultures AP  **10** **1.00**

[Prerequisite: Student must have earned a 90% or higher final average in American History II CP.]

This is a college-level course designed to help students develop greater understanding of the evolution of global processes and contacts and interactions between different types of Human societies. The chronological time frame is from 8000 BCE (including Postclassical Era/Medieval Period, Early Modern Period, Age of Revolutions, Industry, and Empire and Contemporary World History) to the present. The course is divided into five units with an emphasis on analyzing change and continuity over time as well as comparing major civilizations and events. Coursework will include extensive reading, writing, and analysis of Primary and Secondary source documents. Students are encouraged to take the World History Advanced Placement Exam offered in the spring. This course will be offered as an elective for 11th and 12th grade students.

229 World Cultures Honors  **10** **1.00**

Honors World Cultures is an accelerated course designed to help students understand the evolution of global processes, contacts, and interactions between different types of Human societies. The course will cover the same general topics as College Prep World Cultures but with a broader depth, more detail, and at a faster pace. This will be accomplished using a multi-disciplinary approach to emphasize change and continuity over time and the comparison of major civilizations and events. Coursework will include extensive reading, writing, and analysis of Primary and Secondary documents.

230 World Geography **9-12** **1.00**

This course will engage students in understanding our constantly changing and complex world through the study of geography. Students will study geography from the physical, political, and cultural perspective through the five basic geographical themes of location, place, human-environment interaction, movement, and region. Special emphasis will be placed on using online geographic tools to enhance geographic skills, and geographic literacy

234 American Government  **11-12** **1.00**

Objectives center on the government's purpose, powers and forms. Included are Constitutional Law, federalism, the American political party system and citizen participation with an emphasis on voting. Other central topics are interest groups, political systems and the structure of state and local government. Many hands-on opportunities to experience government at work are part of this essential course for every educated world citizen.

243 Introduction to the Social Sciences  **10-12** **1.00**

This course will introduce students to the Social Sciences. There will be a general overview of the social sciences and their relationship to each other. We will then concentrate on Psychology and Sociology as a way to understand ourselves and our relation to society and the people around us. The course will emphasize the human situation as it relates to man, his behaviors, and his activities in social groups. The course spans birth to death and everything in between.

244 World War II & The Holocaust**9-12****0.50**

This course will analyze and explore the complex factors that contributed to World War II and the Holocaust. Students will examine events both chronologically and thematically using a variety of resources.

249 Entrepreneurship**11-12****1.00**

This course provides students with basic knowledge of how businesses are started and managed. The focus of the course surveys the importance of entrepreneurship and capitalism. It also examines the process of innovation and its importance within the US economic system. Course concepts will include business start-up, market share analysis, brand marketing, and business plan creation. In this half semester course, grades will be based on homework/notebook, class work, projects, class participation, quizzes, and a final exam.

251 Current Events for the Global Citizenship**11-12****0.50**

Using current events, this course focuses on world and local issues that affect everyday lives, such as economics, government, and conflict. We will take an in-depth look at what it means to be a global citizen. Students will explore approaches to globalization and citizenship and the opportunities and challenges that a global community creates while learning about global inequalities in healthcare, science and technology, and the tensions between local and global issues. This course uses newspapers, online media, cartoons, and newscasts to support class discussion.

253 History of Sports**9-12****0.50**

This course is designed to give students a basic understanding of not only the history of sports in American society but also the impact that sports have made on the culture of many generations. This course examines sport as a reflection of American society socially, politically, and economically during various historical periods. More specifically, course discussion topics will include social class, race, ethnicity, gender, technology, and commercialization as they relate to the historical progression of American sport. Lecture, discussion, and research will be supplemented with cooperative learning activities. The course will require that students work in teams periodically throughout the semester. Consequently, students will develop the ability to collaborate with each other, delegate work within their groups, and communicate the groups' findings.

257 History of American Movies**9-12****0.50**

The course will explore American history, culture, and society through classic movies. Students will be challenged to think about our history as it is depicted on film. They will be asked to explain the role of movies in telling America's story. Students will also watch movies depicting certain eras and compare the movie depictions to historical facts. Working in small groups, students will debate with one another to learn the importance of effective verbal communication skills and the ability to express ideas clearly. Debates will also teach the importance of analytical skills and logical thinking. Finally, students will gain an appreciation for American film while studying a variety of time periods throughout American history. In this semester's course, grades will be determined through quizzes, homework, class work, projects, class participation, and a final.

TECHNOLOGY EDUCATION

820 TV Production**10-12****1.00**

Textbooks and hands-on experience combine to offer an introduction to the equipment, theories, and techniques used in video production for broadcast or corporate use. Students will explore concepts as they consider planning, scripting, lighting, designing, shooting, and budgeting their own projects.

822 TV Production II**11-12****1.00**

[Prerequisite: 820 TV Production]

Textbooks and hands-on experience combine to offer an introduction to the equipment, theories, and techniques used in video production for broadcast or corporate use. Students will explore concepts as they consider planning, scripting, lighting, designing, shooting, and budgeting their own projects.

WELLNESS/FITNESS

897 Recreational Lifetime Activities Not Offered (22-23)**10-12****1.00**

The purpose of this class is to introduce students to a wide variety of lifetime recreational and fitness activities. Students will have opportunities to learn about and participate in activities, exercises, and games that are easy and fun to engage in throughout one's lifespan no matter what age or fitness level. We will also explore concepts related to cooperative team building as we build towards more adventurous activities and exercises.

898 Personal Fitness**10-12****1.00**

The purpose of this class is to establish an understanding of the importance of daily physical fitness and how that impacts one's own health and wellness. A student will learn the tools to develop short term and long term fitness goals and develop a weekly fitness plan while learning how to train in order to improve in the five health-related components of fitness including cardiovascular endurance, muscle strength, muscle endurance, flexibility, and body composition.

899 Team Sports**10-12****1.00**

The purpose of this class is to further expand on a student's team sports experience from previous Wellness/ Fitness classes. Students will have an opportunity to improve on the skills necessary to play a wide variety of team sports, while also learning how to apply tactics and decision-making to gameplay. Students will also learn the rules and the origins of each sport. The students will have more time on each sport or activity, games will last longer, and they will have an opportunity to be competitive while also learning about etiquette and sportsmanship.

901 Wellness/Fitness 9**9****1.00**

This course is designed to promote lifelong fitness and healthy practices providing students with experiences in the gym and in the classroom. Students will learn about and experience a variety of lifetime and team activities, with an emphasis on personal fitness. In the health room, students will learn about a variety of topics including fitness, substance abuse, human sexuality, first aid, decision-making, and nutrition, among others, in order for them to make informed decisions about their personal health.

**Wellness/Fitness classes are not used to calculate GPA or class rank. A grade of less than 77 percent will eliminate a student from the honor roll.

WORLD LANGUAGES**503 Spanish I****9-12****1.00**

This introductory course emphasizes basic conversation in Spanish. Major topics include vocabulary, idiomatic expressions and the forming of sentences and questions. The present tense is studied in depth. A video series, titled *Viva el Mundo Hispano*, is used to improve listening skills and introduce cultural ideas. Brief cultural overviews are given for several Spanish-speaking countries including information on their practices, traditions, and customs. The textbook used is *Buen Viaje* – Level 1.

505 Spanish II**9-12****1.00**

[Prerequisite: 503 Spanish I]

Spanish II is an intermediate level course stressing the improvement of conversational skills in the target language. Emphasis is placed on the grammatical structure of the language. The preterite and imperfect tenses are studied in detail. The future and conditional tenses are also introduced and studied. The diverse culture of various Spanish-speaking countries is discussed in more depth, including discussions on food, travel, jobs, communication, shopping, and popular culture. A video series, *Viva el Mundo Hispano*, is used to develop listening skills in the target language. The textbook used is *Buen Viaje* – Level 2 (Chapters 1-7).

506 Spanish III Honors**10-12****1.00**

[Prerequisite: 505 Spanish II]

Spanish III is an advanced honors-level course stressing continual improvement in conversational Spanish. Formal and familiar commands are introduced and studied. The indicative mood is reviewed. The present subjunctive is also studied in detail. The diverse culture of various Spanish-speaking countries is discussed in more depth, including discussions on accidents and medical problems, city and country life, transportation and directions, public services, holidays, and professions and occupations. The video series, *Viva el Mundo Hispano*, is continued from Spanish II and used to develop listening skills and critical thinking in the target language. Literature is read, analyzed, and discussed. Works include but are not limited to *El cohítre: Una leyenda puertorriqueña*, and *Tierra*. The textbook used is *Buen Viaje* – Level 2 (Chapters 8-14).

507 Spanish IV Honors**10-12****1.00**

[Prerequisite: 506 Spanish III Honors]

Spanish IV is an advanced honors-level course, in which students further develop and improve on their Spanish skills. Grammatical, historical, and cultural elements are reviewed and reinforced throughout the course. The study of the subjunctive mood is continued and the perfect tenses are covered. Students are expected to utilize Spanish through reading, writing, and speaking it in class. The diverse culture of various Spanish-speaking countries is discussed heavily, including discussions on the history, geography, and culture of Spain, Ecuador, Bolivia, Peru, Chile, Argentina, Paraguay, Uruguay, countries in Central America, Mexico, Cuba, Puerto Rico, Dominican Republic, Venezuela, Colombia, and the history and culture of Latinos/Hispanics in the United States. Various literary works are read, analyzed, and discussed for each area of the Spanish-speaking world that is focused on in each chapter. The textbook used is *Buen Viaje* – Level 3.

513 German I (Online)**9-12****1.00**

This introductory course includes the following areas of study: vocabulary, simple dialogues, short reading selections followed by questions to be answered with simple sentences, the correct forms of nouns and verbs used in forming sentences, and idiomatic expressions. This course emphasizes speaking, listening, reading, and writing German.

515 German II (Online)**9-12****1.00**

[Prerequisite: 513 German I]

In the second year, the study of basic grammar, vocabulary, and idiomatic expressions of the German language is continued. Short stories are introduced. The emphasis again is on speaking, listening, reading, and writing.

s e c t i o n 4

*LCTI Course Offerings and
Descriptions*

LEHIGH CAREER & TECHNICAL INSTITUTE



Career and technical education, or CTE, helps students get more out of high school. Specifically, more opportunities to master practical skills, secure industry credentials, earn college credit, win scholarships, explore careers, develop leadership ability, and gain real-world experience. That's why Lehigh Career & Technical Institute is the smart choice for students who want to be college and career-ready when they graduate.

Operating with the support of all nine Lehigh County school districts, LCTI offers dozens of CTE programs taught by industry experts in five areas of study: Arts & Humanities, Business & Communication Technology, Engineering & Advanced Manufacturing, Health & Human Services, and Industrial Technology.

We are the largest career and technical school in Pennsylvania and, thanks to the support of our education and industry partners, among the best equipped nationwide. LCTI's campus is adjacent to Lehigh Carbon Community College in the Schnecksville section of North Whitehall Township and boasts a 450,000-square-foot facility outfitted with the latest software, tools, and equipment

ENROLLMENT OPTIONS

Academic Center: The Academic Center provides students in **grades 9-12** with the option of taking both their academic and career & technical course work at LCTI as full-day students. These rigorous academic courses will satisfy graduation requirements as well as complement the career & technical major of each student. Students will still graduate from their resident school districts and are encouraged to participate in extracurricular activities back at their sending school. Students will be able to register for the full-day program during their school district's regular course registration time.

Half-day enrollment: Students in **grades 9-12** may choose the half-day enrollment option. The half-day option provides students with career & technical education at LCTI and the required academics at their respective school districts. Students are encouraged to take high-level coursework at the sending district which will provide the academic background necessary to be successful in today's highly technical careers.

Flex time enrollment: Another option that may suit students' individual needs is the flex-day program. The flex program is designed to provide students with technical coursework on a limited schedule. Students may choose to come to LCTI for one or more periods per day depending upon their needs. Students may attend one or both semesters and may attend for multiple years. Many students use this technical educational training as a jump start to a technical degree in a four-year institution. Both the half-day and flex-day options may be chosen during the regular course registration process.

ACADEMIC CENTER COURSE OFFERINGS

All courses in the LCTI Academic Center are college-preparatory and meet graduation requirements. Courses are assigned based on classes completed at the sending district prior to attending LCTI. All science courses are lab-based and a graduation project is required for all Academic Center students. The courses offered in the Academic Center are listed below.

English	Mathematics	Science	Social Studies	Other
ELA I	Algebra I	Principles of Scientific Inquiry	American Studies I	
ELA II	Geometry	Biology	American Studies II	Wellness/ Fitness 11
ELA III Accelerated ELA III	Algebra II	Chemistry	World Cultures	Wellness & Fitness 12
ELA IV Accelerated ELA IV	Pre-Calculus	Physics I Physics II	American Government/ Civics/Economics Accelerated American Government/Civics/Economics	
LCCC English Course	Calculus	Environmental Science		
	LCCC Academic Courses			

Lehigh Career & Technical Institute Academic Center Course Schedule 2024-2025

Grades	Semester I	Semester II
9	Math	Math
	Science	Science
	ELA I	ELA I
	American Studies I	American Studies I
10	Math	Math
	Science	Science
	ELA II	ELA II
	American Studies II	American Studies II
11	Math	Math
	Science	Science

	ELA III	ELA III
	*World Cultures or *Wellness/Fitness	*World Cultures or *Wellness/Fitness
12	ELA IV	ELA IV
	American Government/Civics/Economics	American Government/Civics/Economics
	Wellness & Fitness	Wellness & Fitness
	Math or Science	Math or Science

*Semester Course

LCTI ACADEMIC OPTIONS FOR HALF-DAY STUDENTS

Lehigh Career & Technical Institute (LCTI) provides academic courses to some half-day students who attend the school. It is very important for students to be successful in both their academic and technical coursework. The courses taken at LCTI are necessary to meet the student's graduation requirements. If a student does not complete an academic course with a passing grade, the course must be retaken. LCTI does not offer a summer school; however, this option may be available through the sending high school. It may also be possible for courses to be made up during the student's senior year; however, makeup courses scheduled in the senior year can cause the student to lose the opportunity for a Cooperative Education job placement. If the coursework is not made up, graduation from high school may be jeopardized.

The following academic courses for half-day students may be required while attending LCTI.

American Studies II

The American Studies II course addresses the development of the United States throughout the twentieth century. This course is aligned with the Pennsylvania Core Standards for Social Studies as well as Reading, Writing, and Listening and Speaking. Through various activities and lessons, these standards will be met to understand the development of the United States as a world power; focusing on economic and industrial development, political trends, society and cultural problems, and achievements. The students will develop an understanding of the progress of technology and social groups. They will be expected to evaluate the changes of culture in society and analyze the political contributions of individuals and events of the periods studied. American Studies assignments also include the integrated concepts between this history course and various Career & Technical Labs. Students will be assessed formally and informally to determine mastery of the content for the duration of the academic year.

Wellness & Fitness

Course Overview: The Wellness Program provides students with life-changing information on nutrition and various techniques on stress management that they can use throughout life. The most common mental disorders will be researched and students will receive training on suicide prevention. During nutrition, students will investigate the harmful ingredients found in the foods they eat on a daily basis, analyze products served by several fast food chains, and research healthy alternatives.

The Fitness Program is designed to acquaint students with the benefits of physical activity in their lives and to promote life-long wellness and fitness. The course, which is held in the state-of-the-art LCTI Fitness Center, will feature various strength and conditioning principles, such as specificity, progression, and overload, along with multiple training techniques, such as CrossFit, Tabata, Yoga, and an assortment of technology-based exercises.

LCTI CAREER & TECHNICAL EDUCATION OPTIONS

At Lehigh Career & Technical Institute, students learn by doing. Teachers guide students from instruction to action, helping them tackle projects that mirror on-the-job challenges as they develop the knowledge and skills necessary to secure industry credentials, earn college credit, or both. For example, marketing students manage a store on their way to earning National Retail Federation certification. Programs are identified as either Program of Study (POS) or Career & Technical which designates the type of postsecondary credit options available. Students who participate in the POS programs have the ability to earn advanced college credits through SOAR (Students Occupationally and Academically Ready) or through articulation credit with a specific post-secondary school. Career & Technical programs only offer articulation credit where available.

LCTI's programs fall into five areas of study:

ARTS AND HUMANITIES

Advertising Design/Commercial Art: Students will learn the latest Adobe graphic design software currently used in the professional workplace. The emphasis of the program is based on Adobe Photoshop, Illustrator, and InDesign and creating a printed and electronic portfolio of work produced through these programs. Students are able to receive certification for Adobe Photoshop, Illustrator, and InDesign through Adobe endorsed Certipoint. In addition to the Adobe Creative Cloud, students will learn traditional illustration skills such as pencil drawing and shading, watercolor, colored pencil, scratchboard, and various other mediums. Photography for advertising is used in class and students will learn the use of a Digital Single Lens Reflex camera and the setup of strobe lights. Students are able to concentrate on three different career objectives which are Graphic Design, Sign-Making, or Illustration. **(POS)**

Emerging Digital Media & Social Communications: Social media is big business and video content is king. In our Emerging Digital Media program, students learn about the creative and technical processes that drive video production for multimedia platforms ranging from Snapchat and TikTok to YouTube and Netflix. They also explore deejaying and electronic dance music production as they master a variety of concepts, software, and skills. **(POS)**

BUSINESS AND COMMUNICATION TECHNOLOGY

Computer Information Technology: Students will be at the forefront of cyber-security related issues as a means to safeguard sensitive data and preserve confidentiality. CIT challenges students to develop meaningful business solutions through computer programming in Visual Basic, C+, C#, and Java. Students learn to use data in order to produce information that moves organizations forward and solves problems.*This program participates in the IT Academy* **(POS)**

Computer & Networking Technology: Students are prepared for advanced network training and the industry-standard CompTIA **A+** and **Network+** Service Technician certifications. The program takes students from basic PC hardware through operating systems and networking. Students will also learn the MS Office Suite, customer service and support, and advanced network support. Students have the opportunity to participate in dual enrollment coursework for college credit; additionally, satisfactory completion of the program may grant college course credit through articulation agreements with LCCC.. *This program participates in the IT Academy* **(POS)**

Marketing & Entrepreneurship: Students learn about finance, retail marketing, banking, entrepreneurship, promotions, and other important aspects of marketing through virtual business software and retail experience in the school's store. They examine what is necessary to run a business, promote a product or manage a department. Practical experience is available through the student-managed school store and by participating in community internship opportunities. **(POS)**

Print Technology/Graphic Imaging: Students creatively design printed materials such as full-color books, posters, packaging, displays, stationary, as well as specialty items like mugs and shirts. Using the most current versions of Adobe Creative Cloud software on Apple Macintosh computers, students then reproduce their attractive projects on state-of-the-art copiers, printing presses, and bindery machines in a real production environment. **(POS)**

Web Design/Web Programming: Students learn the fundamentals related to web page design and website development, graphics, multi-media, and HTML coding. Students are taught the tools for rapid web page production and basic server-side programming techniques to handle everything from form transmittal to building dynamic interactive web pages, intranet, extranet, and e-commerce applications. *This program participates in the IT Academy* (POS)

ENGINEERING & ADVANCED MANUFACTURING

Automated Industrial Technologies: Students learn an innovative curriculum which combines hands-on training with real world industrial equipment and software. Students get a solid background in industrial, electrical, and electronic systems, A.C. and D.C. motors, motor controls, power distribution systems, programmable controllers, hydraulics, pneumatics, mechanical drives, transformers, process control systems, and troubleshooting. (POS)

Electronics Technology: Students are taught the principles of electronics. From DC Circuits to Semi-Conductive Devices they learn to design, build, and test electronic circuits. LCTI has a fully functioning Class 1000 fabrication room (cleanroom) where students create the silicon chips that are the foundation of the information age and the heart and soul of modern electronics. (POS)

January 2024

Engineering Drafting & Design: Students utilize computer-aided drafting and design software to create accurate representations of solutions to engineering design challenges. They hone their skills by designing and then producing three-dimensional models for machine parts, home additions, bridges, and more. In the process, students learn to use 3D and wide-format printers, as well as common model-building materials. (POS)

Precision Machine Tool Technology: LCTI's Precision Machine lab is recognized as a Haas Technical Education Center and incorporates lessons and demonstrations, as well as extensive applications training in reading blueprints, operating a digital lathe, milling machine, drill press, and other machine shop operations in the curriculum. Students train on state-of-the-art CNC machine tools placed in the lab by Haas Automation. (POS)

Pre-Engineering & Engineering Technology: This pre-engineering program is a sequence of courses which, when combined with traditional mathematics and science courses, introduces students to the world of engineering. Students study the principles of engineering, engineering design, digital electronics, and computer integrated manufacturing. (POS)

Supply Chain Management & Logistics Technology: Students learn inventory control, purchasing, receiving, shipping, equipment operation, and maintenance in a state-of-the-art 17,000 square foot distribution center. Students train with current industry technology including handle-held track pads and computers, vertical and horizontal carousels, a computer-controlled conveyor, and a computer-integrated warehouse management system. Students explore the supply chain of products from their global origin to the consumer including modes of transportation. (POS)

Welding Technology: This course teaches students shielded metal arc welding, gas metal arc welding, flux cord arc welding, welding inspection, testing, and safety/emergency procedures. The program operates under entry-level certification authorization by the American Welding Society and a special arrangement with Lehigh Carbon Community College permits students to earn a national skills certificate and an Associate Degree. (POS)

HEALTH AND HUMAN SERVICES

Animal Sciences: The Animal Sciences program provides high school seniors with the opportunity to explore a variety of veterinary and animal-centric careers in a professional setting while taking Lehigh Carbon Community College science courses for college credit. In a typical school week, students spend one half day immersed in the program curriculum at LCTI, two half days in dual enrollment courses (Fundamentals of Biology, Introduction to Veterinary Technology, and Veterinary Terminology) at LCCC, and two half days shadowing professionals or participating in other activities at Lehigh Valley Zoo and local veterinary clinics. Successful participants complete the program with at least seven readily transferable college credits. Students also get the chance to earn industry credentials that signal their readiness for higher learning to college admissions officers. **This program is only available to senior students.** (POS)

Commercial Baking: Cake decorating, breads, rolls, sweet goods, pastries, pies, doughnuts, and nutrition are all part of this course. Students learn the fundamental principles and procedures of operating a fully functioning bakery and retail bake shop, including preparation, display, and management. With attention to both theory and practice, this course is designed to prepare students for entry-level positions in the commercial baking industry. LCTI's program is certified by the American Culinary Federation and is nationally recognized as exemplary in all areas of the curriculum. **(POS)**

Cosmetology: Students learn hair styling, hair cutting, hair coloring, chemical texturizing, nail/skin care, and salon business operations. Students learn these skills through clinical practices offered at the school salon. Preparation for the Pennsylvania State Board Examination will enable students to become licensed as a cosmetologist and will allow them to work in a challenging and creative profession. **(CAREER & TECHNICAL)**

Criminal Justice: Students learn Pennsylvania criminal and traffic laws, the legal use of force, search/seizure/evidence procedures, arrests, and other aspects of law enforcement. Students also train in a firearms simulator and conduct mock disaster drills to gain practical emergency skills. The program includes opportunities to earn Emergency Medical Responder (EMR) and Emergency Medical Technician (EMT) certifications. **(POS)**

Culinary Arts: Stocks, soups, sauces, appetizers, desserts, main dishes, menu planning, and nutrition are just some of the aspects of this program. Students learn front of the house and back of the house skills working in the school restaurant. LCTI's program is certified by the American Culinary Federation and is nationally recognized as exemplary in all areas of the curriculum. **(POS)**

Dental Technology: Students who enroll in this program learn a variety of skills that will enable them to become a dental assistant, dental laboratory technician, and/or pursue a career as a dental hygienist. The major areas of study in the course include: dental radiology, oral pathology, chair-side dental assisting, anatomy and physiology, dental materials, sterilization, and dental office business procedures. **(POS)**

Early Childhood Education: Students who enroll in this program prepare for careers as caretakers and teachers for young children. As students move through the program curriculum, they will: deliver quality child care that meets youngsters' physical needs and supports their development; collaborate with peers to create safe, engaging play environments for young children; lead fun, educational activities for preschool kids in an on-site child care center. **(POS)**

Emergency Health Services: Students who enroll in this program prepare for careers as first responders and more. As students move through the program curriculum, they will: master CPR and other first-aid while earning emergency medical services certifications; train with an ambulance simulator, medical manikins, and other high-tech equipment; collaborate with other future first responders and health care providers during simulated emergencies. **(POS)**

Emerging Health Professionals: The Emerging Health Professionals Program provides high school seniors with an opportunity to experience a variety of health care careers in a hospital setting and take Penn State/Lehigh Carbon Community College science courses for college credit. Students spend one day a week rotating among various departments of a hospital. Students will experience these departments throughout the three Lehigh Valley Hospital & Health Network facilities, St Luke's University Health Network Allentown Campus, Country Meadows, and Good Shepherd Rehabilitation Network. The hospital portion of the program provides students with observational experience that enables students to observe various healthcare professionals as they work with patients. Also, students have the opportunity to meet various health career professionals during presentations within the LVHN community. In addition to these experiences, students are given an overview of the healthcare industry and all that it entails throughout their coursework at LCTI. **This program is only available to senior students. (POS)**

Future Educators: This dual-enrollment program is designed for 12th graders who aspire to be educators. It gives students a head start on college while exposing them to a variety of education careers. Students job shadow or train with teachers at LCTI and other Lehigh County schools. They also earn seven credits by taking Foundations in Education, Introduction to Special Education, and Careers in Education courses at Lehigh Carbon Community College. **This program is only available to senior students. (POS)**

Health & Medical Sciences: Health care is among the nation's fastest growing industries and offers a broad range of professional opportunities. In our Health & Medical Sciences program, students learn about the practical applications of medical science as they explore careers in physical therapy, athletic training, and comparable fields. Students can earn CPR, AED, and other certifications through the American Heart Association and may pursue internship and co-op positions at local healthcare facilities. **(CAREER & TECHNICAL)**

Teacher Education: Students studying childcare will learn child and staff health, child development, early childhood education, elementary education, special education, discipline and guidance of children, childcare program development, and professional development. **(POS)**

Veterinary Technology: Students who enroll in this program prepare for careers in animal care and veterinary medicine. As students move through the program curriculum, they will: care for gerbils, guinea pigs, and rabbits while studying animal anatomy; assist with veterinary procedures and grooming for staff members' dogs and cats; examine animals for behavior and symptoms that could indicate illness or injury. **(POS)**

INDUSTRIAL TECHNOLOGY

Auto Collision Repair Technology: Students learn about the tools and equipment associated with the collision repair industry while learning welding, non-structural and structural damage analysis, estimating, and repair techniques, along with paint preparation and refinishing systems used in today's technologically advanced automobiles. This comprehensive course of study and the volume of exposure students receive allows them to step into the workforce immediately following graduation or continue studies at the post-secondary level. **(POS)**

Auto Technology: Students in this program are prepared to diagnose and repair automobile systems including electrical systems, ignition and emission systems, engine cooling and lubrication, front ends, air conditioning, brakes, transmissions, engines, and drive trains. Students participate in the nationally recognized Automotive Youth Education Systems (AYES) industry partnership. The program teachers are Master Certified ASE Technicians who utilize state-of-the-art equipment to prepare students to become automotive technicians. **(POS)**

Cabinetmaking & Millwork: Cabinetry, wood products design and layout and construction open the world of cabinetmaking & millwork to students. Students are taught to read blueprints, make shop drawings, and produce components with trade-related hand and power tools and machinery. The newly expanded lab and curriculum provide knowledge of lumber products adhesives, fasteners, finishing, 32mm cabinets, and counter top fabrication. Technology has entered this rewarding construction trade with the addition of CNC router technology. **(POS)**

Carpentry: Blueprints, site work, construction footings, framing floors/walls/ceilings/roofs, radon control, insulation, and power tools are some of the areas taught in Carpentry. Students participate in the LCTI Student House Project where a home is built and sold at auction upon its completion. Students learn how the building industry works, its standards, and what is required to complete a project on time and at cost. **(POS)**

Diesel Medium & Heavy Truck Technology: Students gain experience with drive trains, clutch assemblies, transmissions, diagnostics, steering, and other aspects of this industry. Students also study suspension, diesel engines, gasoline engines, bearings, and seals. The trucking industry needs professionals to service the truck fleet that keeps industry and commerce moving in the United States. LCTI can provide students with the necessary expertise they need to succeed in this industry. **(POS)**

Electrical Technology: Students learn residential, commercial, and industrial electrical wiring, as well as fluid power technology planning and wiring. Students are taught to install duplex and split wired duplex receptacles, single pole switches, 3-way and 4-way switches, and Ground Fault Circuit Interrupters. **(POS)**

Heating/Air Conditioning & Refrigeration: Students learn to install, troubleshoot, and repair air conditioning, heat pumps, commercial refrigeration units, and gas and oil heating equipment. Skilled technicians are proficient in reading electrical diagrams, diagnosis of electrical problems, air distribution designs, copper and steel pipe cutting, soldering and fabricating fiberglass and sheet metal duct systems. **(POS)**

Heavy Equipment Operations & Preventive Maintenance: As a student in this fast-paced and diverse

program, you will learn the safety, maintenance, and operating techniques for a wide variety of earthmoving equipment. Students will also receive instruction in soils, erosion and sediment control, site preparation, aggregate production, concrete, and asphalt paving, surveys and grades, and utility installation. In addition, students will have the opportunity to learn machine systems, parts identification and ordering, and preventative maintenance techniques in a state-of-the-art facility. **This program is not available to ninth grade students. (CAREER & TECHNICAL)**

Masonry: Students will learn various layouts and pattern designs using brick, concrete masonry units, stone, and ceramic tile. This comprehensive program teaches students how to correctly use the necessary tools and equipment to build simple wall structures, fireplaces and brick sculptures. Ceramic tile installation and thin stone veneer applications are also included in the curriculum. Students also participate in the student-built house project. **(POS)**

Painting & Design: Students learn to refresh and highlight interior and exterior spaces (residential and commercial) as well as improve and restore historical buildings. Painting, wallpaper hanging, furniture refinishing, line striping, staining, and spraying are among some of the topics emphasized in this program. **(CAREER & TECHNICAL)**

Plumbing & Heating: In this high priority occupation program, Students will learn the basic to the advanced skills of Plumbing & Pipe Fitting. Repairing and installation of items such as, but not limited to; Faucets, Bathtubs, Toilets, Sump Pumps, Sewage Pumps, Water Heaters, Boilers, Water Softeners, Well Pumps, Solar Heating Systems, Chilled Water, Air Conditioning and Radiant Heating Systems. This lab will teach skills such as but not limited to; brazing, soldering, threading, pressed, rolled/grooved, flared, pipe fitting and measurement, and fused joints. Students will work with PEX, Copper, Steel, Cast Iron, PP-R, PVC, and CVPC Pipe and Tubing. This program incorporates a multi-level and fast-paced, technology enriched learning environment. **(POS)**

Small Engines/Recreational Vehicle Repair: Students will learn to diagnose and repair lawn mowers, chainsaws, jet skis, motorcycles, and go-karts. Students will learn about the small engine and the vital components to effectively make the engine perform to maximum efficiency. Students will also learn about brake systems, transmissions, hydraulics, hydrostatics, and drive systems. Students will learn skills that involve welding, cutting with a torch, cylinder honing and boring. **(POS)**

OTHER PROGRAM OPTIONS

Service Occupations Cluster: Five curricular areas are offered in this program: Auto Specialization Technology, Building Trades Maintenance, Food Services, Indoor/Outdoor Maintenance, and Supply Chain Management & Logistics Technology. Each area is designed to help the student transition from basic entry-level skill development to more advanced technical training or directly into the workforce. A skills screening will be done to determine the readiness and interest of the student. The results of the screening will be provided to the student's IEP team.

Career Academy Program: Provides the nine participating school districts of Lehigh County an alternative for at-risk students to receive a high school diploma and work toward a career goal in their program of choice. Selected technical programs at LCTI are available to Career Academy Program (CAP) students. They receive academic instruction in English, mathematics, social studies, science, health/wellness, physical education, job readiness, and enrichment coursework. The program operates on a three-day rotation schedule with two out of three days focused on Career & Technical Education Programs. Programs include Applied Horticulture, Building Trades Maintenance, Electrical Technology, Graphic Communications, and Office Systems Technology.

School-To-Career

- **Job Shadow** - Students accompany employees through part of a typical day and learn about the varied aspects of their job and the skills required to work in the field.
- **Internship** - Students may participate in a business match program that allows them to spend a period of time working in their field of study.
- **Cooperative Education** - Students in 11th and 12th grade may participate in a business match program that allows them to spend a portion of the school year working in their field of study. Students pursue their academic coursework on a half-day schedule and report to their place of employment for the remainder of the day.

DUAL ENROLLMENT PROGRAM

Did you know you can take college classes while attending LCTI?

Opportunities to earn college credit while still in high school

You won't have to break the bank to attend college. Each credit course at Lehigh Carbon Community College (LCCC) costs about half the regular tuition rate and less than a fourth of the cost for a comparable credit course at any one of Pennsylvania's State universities.

What is a placement test? A placement test is given to students who are interested in taking college courses at LCCC. Students must obtain a minimum score to be eligible for college classes. More information regarding placement testing can be found on lccc.edu.

Dual Enrollment requirements? Students must be Level II or higher in their lab programs and maintain a minimum of a "B" average to participate in Dual Enrollment. Students must also have good attendance and no discipline referrals. The tuition and associated costs for dual enrollment courses must be paid by the student/parent.

Want to see if Dual Enrollment is right for you? Our free, one-credit course "**The College Experience**" is an opportunity to explore dual enrollment. In "**The College Experience**" you'll learn what to expect if you go to college, as well as what will be expected of you. Upon completion of the course, students have the option of taking a placement test to determine eligibility for future classes at a reduced rate paid by the student/parent.

Lehigh Career & Technical Institute has a policy not to discriminate on the basis of race, color, national origin, sex, disability, or age in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. Inquiries may be directed to LCTI's Title IX and Section 504 Coordinator for students at 4500 Education Park Drive, Schnecksville PA, 18078 or 610-799-1357 (title9@lcti.org) or LCTI's Compliance Officer for personnel at 610-799-1385 (title9@lcti.org).