

# CONESTOGA



# PROGRAM OF STUDIES

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**2025 - 2026**

**CONESTOGA HIGH SCHOOL**

**200 IRISH ROAD**

**BERWYN, PA 19312**

**DR. AMY A. MEISINGER, PRINCIPAL**

# 2024-2025 Tredyffrin/Easttown School District

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### College & Career Transition

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Some of the words and terms used in this booklet or in the course selection and scheduling process may not be familiar to all students and parents. The following explanations may be helpful.

**Academic (A) Courses**

Academic courses prepare students for admission into colleges and universities. As the name implies, the emphasis is on serious academic studies. The pace accommodates students' individual needs. Academic courses receive appropriate weight when the Grade Point Average (GPA) is calculated. When instructional levels are combined, differentiation between levels may be made through adjustments to curriculum, instruction and assessment.

**Accelerated (X) Courses**

Accelerated courses provide a solid foundation for admission to colleges and universities. As the name implies, the pace is accelerated and the workload is demanding. Accelerated courses receive appropriate weight when the Grade Point Average (GPA) is calculated. When instructional levels are combined, differentiation between levels may be made through adjustments to curriculum, instruction and assessment.

**Advanced Placement (AP) Courses**

Advanced Placement, or AP, refers to college-level courses taught according to syllabi prescribed by The College Board Advanced Placement Program and/or to courses designed to prepare students for College Board AP Tests. Success in AP courses can be an important factor in admission to colleges and universities. Successful performance on AP tests (a score of 3, 4, or 5 on a five-point scale) may lead to college credit and/or advanced placement in college courses. For further information on college policies for granting of AP credit, consult the catalogs of specific colleges and universities. AP courses receive appropriate weight when the Grade Point Average (GPA) is calculated. When instructional levels are combined, differentiation between levels may be made through adjustments to curriculum, instruction and assessment.

**Chester County Technical College High School**

The Chester County Technical College High School (TCHS) is located in Pickering, which is near Phoenixville. TCHS provides vocational and technological training to prepare students for employment or further education in a variety of areas. Conestoga students may attend on either a full-day or half-day basis. Students attending on a half-day basis may take their required courses in English, social studies, math, science, and health at either location as offered.

**Co-curricular Experiences**

Co-curricular experiences refer to activity-oriented courses which are offered both for credit during the school day and as activities outside the school day.

**Conflict**

A scheduling conflict occurs when two or more selected courses are offered at or can only be scheduled at the same time.

**Course Fee / Lab Fees**

Several course descriptions indicate that a course fee or a lab fee is required of students to help defray the cost of materials associated with instruction. No student should avoid electing a course on the basis of a course fee requirement. For eligible students, course fee waivers may be confidentially obtained from a school counselor or from the Assistant Principal for the Academic Program.

**Credits**

One credit is earned upon successful completion (passing grade) of a course that meets the equivalent of one period daily for a full school year. Partial credit is awarded for courses that meet less frequently based upon instructional time.

**Elective Courses**

Individual elective courses, by definition, are not required. However, to meet graduation requirements, students must choose electives that satisfy graduation requirements (see page 4 for more information).

**Extracurricular Activities**

Extracurricular refers to student clubs and activities that meet outside of the regular school day and which are not part of specific courses within the traditional school curriculum. For further information, consult the Student Organizations section of this book.

**Grade Point Average (GPA)**

A student's Grade Point Average is computed on both a weighted and an unweighted scale, and both are reported on the student's transcript. GPA is computed annually for all students.

**Honors (H) Courses**

Honors courses are those which are taught at a high school level but which, like AP courses, provide the greatest challenge and the best preparation for admission to and success at highly selective colleges. Honors level courses receive appropriate weight when the Grade Point Average (GPA) is calculated. Courses identified as H\* receive AP-equivalent weight in the calculation of GPA. When instructional levels are combined, differentiation between levels may be made through adjustments to curriculum, instruction and assessment.

**Interscholastic**

Interscholastic refers to athletic and scholastic activities which involve competitive events with other secondary schools.

**Intramural**

Intramural refers to athletic and other activities which involve informal competition among students within Conestoga High School.

**Major**

A major subject is defined as any subject that carries .5 or more credit for a semester course and 1.0 or more credits for a full-year course.

**Minor**

A minor subject is any subject that carries less than .5 credit for a semester or less than 1.0 for a full-year course.

**Prerequisite**

A prerequisite is a course that a student must complete in order to qualify for entry into another course. Before students can take Algebra 2, for example, they must have completed Algebra 1. Therefore, Algebra 1 is a prerequisite for Algebra 2.

**Required Courses**

Required courses are specific courses that must be taken by all students to satisfy graduation requirements. Examples of required courses are Biology, American Voices, and United States History.

**Semester**

A semester is half of a school year. Semester 1 begins in August and ends in late January or early February. Semester 2 ends in June.

**\*\* (Double Asterisk)**

Courses marked with a double asterisk may be taken more than once for credit.

### Introduction

One of the outstanding features of Conestoga High School is its philosophy of access, options and choice within its vast academic program. We are committed to providing an academic program that meets the needs of the individual student. With the assistance of the faculty and counseling staff, Conestoga students select from among a large number of distinct courses to develop a completely individualized program of study designed to address personal, educational, and career needs and goals. Students and their parent(s)/guardian(s) are encouraged to take advantage of the scheduled opportunities for meeting with Conestoga faculty to discuss academic options and to plan appropriate educational experiences.

#### The Conestoga Curriculum

English, Social Studies, Mathematics, Science, and World Languages courses are offered at various instructional levels to accommodate individual differences with respect to learning needs, interests, and academic preparation. Students should select the instructional level within each discipline that affords the greatest opportunity for both intellectual challenge and academic success. It is important to review course content, prerequisites, credits, and instructional levels as indicated in the *Program of Studies* in order to make the most appropriate course selections.

#### Experiential Learning Opportunities (ELO)

**Students may apply through their counselors for administrative approval to schedule Experiential Learning Opportunities** such as Independent Study, Community Service, Individualized Experience, Early College Study, Student Aide, or the Chester County Technical College High School. Applicants must be on track for graduation and qualify for the program requested. A notarized statement of parental approval or a written agreement resulting from a parent conference may be required. Early Admission to College or Early Graduation may also be options for some. Students are reminded that a strong academic program during all high school years is a key factor for many college admission officials as they evaluate applications. For additional information, visit the Student Services Center.

#### Scheduling Parameters

**Students in grades 9 and 10 must schedule a minimum of 6 credits per year with a minimum equivalent of 6 full periods per semester. Students in grades 11 and 12 must schedule a minimum of 5.5 credits per year with a minimum equivalent of 5.5 periods per semester.** At all times, students in grades 9-11 must maintain a course schedule with sufficient credits to be promoted to the next grade. Students in grade 12 must maintain a course schedule with sufficient credits to qualify for June graduation.

**All students may schedule a maximum of 7 credits per year with a maximum equivalent of 7 periods per semester.** The following courses shall not be counted toward the 7 period maximum:

- Learning Support classes
- English Language Development Courses
- Co-Curricular Activities
- Team Sport or Extended Experience PE
- Experiential Learning Opportunities, e.g., Independent Study, Service Learning, or Online Coursework
- College and Career Transition

**Students shall be awarded a maximum of 8.5 credits per academic year.** Exceptions to this limit may be granted for students in danger of not fulfilling graduation requirements by the end of their senior year or for students who have been approved for Early College or Graduation. Other exceptions may be granted for circumstances deemed appropriate by the principal.

#### Course Selection

The course selection process is a complex experience in decision making. Students are encouraged to confer with parents, counselors, and teachers and to take full advantage of the many excellent opportunities available within the high school academic program. Courses that are under-subscribed may not be offered.

#### Equal Opportunity/ Non-Discrimination

The Tredyffrin/Easttown School District does not discriminate in its programs, activities, or employment practices on the basis of race, color, age, creed, religion, religious creed, sex, gender, sexual orientation, gender identity, gender expression, ancestry, national origin/ethnicity, veteran status, marital status, handicap/disability, or membership in any other protected class, childbirth, pregnancy, pregnancy-related medical conditions, or genetic information. Furthermore, the District provides equal access to the Boy Scouts and other designated youth groups, as required by law. The District shall make reasonable accommodations for identified physical and mental impairments that constitute disabilities, consistent with the requirements of federal and state laws and regulations. The following person has been designated to handle inquiries regarding the non-discrimination policies:

**Name:** Dr. Oscar Torres

**Position:** Director of Equity and Public Programs & Title IX Coordinator

**Address:** Tredyffrin/Easttown School District Administration Offices, 940 West Valley Road, Suite 1700, Wayne, PA 19087

**Email:** [torreso@tesd.net](mailto:torreso@tesd.net) **Phone:** 610-240-1909

For further information on notice of non-discrimination, visit <https://ocras.ed.gov/contact-ocr> for the address and phone number of the office that serves your area, or call 1-800-421-3481.

Inquiries regarding the application of federal non-discrimination laws, including Title IX, to the District may be referred to the Title IX Coordinator, to the Assistant Secretary for Civil Rights of the US Department of Education, or both.

## Procedure for Selecting a Course of Studies

After students have chosen their courses and have obtained teacher and parent/guardian approval, their selections are prepared for data processing. If scheduling conflicts occur, students and their parent(s)/guardian(s) are notified and requested to participate in resolving the conflict. Students are urged to consider the following suggestions as they select an individualized course of study:

1. Identify both short-range and long-range goals.
2. Consider the total high school program and anticipate course selections for future grade levels.
3. Review previous courses and grades.
4. Consult with parents, teachers and counselors.
5. Inventory personal skills, interests, learning pace and style, academic achievements, and aspirations.
6. Read this *Program of Studies* booklet carefully.
7. Review requirements for graduation.
8. Select courses with the desired instructional level and appropriate code number in accordance with parent/teacher/counselor recommendation. Note that when the Grade Point Average (GPA) is calculated, courses are weighted to reflect rigor as follows:

AP/H*	AP
H	Honors
X	Accelerated
A	Academic

9. Meet the minimum and maximum credit and period allotment as determined by grade. (see page 2)
10. Consider experience-based learning opportunities such as Independent Study, Service Learning, Early College Study, Student Aide Program, or the Chester County Technical College High School. Students should work with their counselors to ensure the required approvals are met.
11. Submit all final choices by the date announced. Selections submitted after the deadline will be given a lower scheduling priority, reducing one's chances of getting the courses requested.
12. Students will have the opportunity in the spring to verify that all courses have been correctly requested. Kindly understand that conflicts can occur, and students may be asked to submit different course requests. Student schedules are finalized and made available in August.

## Interpreting Course Descriptions

**Environmental Science** — Course Title

Grades 10, 11, 12 Year

1 credit

**3140 (H) SC, EL**

Environmental Science is a course designed for students who have an interest in biology/environmental themes. The class is an extension of environmental/ecology topics that were covered in the student's first year biology class. This is a multi-disciplinary science course that applies scientific concepts to real world problems and dilemmas. The course focuses on both background and laboratory studies of the environment. Course topics include: traditional and experimental ecology, types of pollution, energy sources, oceanography, global trends, economics, ethics, and sustainability.

A course may be offered for a semester or for a full year. If no specific semester is stipulated, a semester course may be computer scheduled in either the first or second semester, with attention given to balancing a student's total schedule. However, semester balancing is not always possible.

Upon completion of this course, the student will have earned 1 credit in Science (SC) or Electives (EL).

The Course Code number for Environmental Science is 3140. This number is used for data purposes and computer scheduling.

"H" indicates the instructional level, which in this case is Honors. The instructional levels of English, Social Studies, Mathematics, Science, and World Languages courses are designated according to the academic demands and instructional pace.

## Graduation Requirements, Promotion Requirements

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### Graduation Requirements for Conestoga High School Students

Students must successfully complete 24.0 credits in grades 9 through 12 as follows:

	2.0-2.25*	credits in Health/Physical Education
4.0	credits in English to include 1.0 credit in Literary Foundations, 1.0 credit in American Voices, 1.0 credit in Language and Composition and 1.0 in Comparative Literature or AP Literature and Composition	2.0 credits in core electives to include 1 course from each of the following three areas: Business/Technology, Visual and Performing Arts, and Family and Consumer Sciences
3.0	credits in Mathematics	4.5-4.8* credits in electives: any course that has not been counted to fulfill other graduation requirements as indicated in the <i>Program of Studies</i> shall also satisfy this requirement. Experiential Learning Opportunities listed in the <i>Program of Studies</i> shall also satisfy this requirement
3.0	credits in Science to include 1.0 credit in Biology	
3.0	credits in Social Studies to include 1.0 credit each in World History, United States History and United States Government/Economics	0.25 credits in College and Career Transition
2.0	credits in World Language to be fulfilled by completion of a Level II course in a second language or its equivalent. Students will demonstrate proficiency in a second language by successfully completing Level II. Students who have completed the second year course in a language prior to entering high school shall be required to take one additional year of the same language (Level III) or two years of a different World Language.	

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#### 24.0 total credits

*\*Distribution of credits will vary for the classes of 2026, 2027, and 2028 as a result of Conestoga's schedule change effective for the 2024-2025 school year. See Administrative Regulation #5227 for further information.*

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### Promotion Requirements (Grades 9-12)

Promotion from one grade to the next is based upon credits earned. Credits earned through summer programs may be acceptable if approved in advance. Parents will be informed if a student has fewer than the required credits for promotion. To be promoted, students must meet the minimum credit requirements outlined in School District Policy #5223. Those requirements are as follows:

The promotion of a high school student is determined by cumulative credits earned.

Grade 9 to 10: Students must have passed at least four major courses and earned at least 5.5 credits.

Grade 10 to 11: Students must have earned at least 11.0 credits.

Grade 11 to 12: Students must have earned at least 17.0 credits. However, final decisions on promotion to grade 12 may be based on whether or not the student can be scheduled during the regular school day for the courses needed for a June graduation.

With advanced approval by the high school principal or designee, students may earn credits through successful completion of a summer school course or through successful completion of an Experiential Learning Program.

At all times, students in grades 9-11 must maintain a course schedule with sufficient credits to be eligible for promotion to the next grade. Students in grade 12 must maintain a course schedule with sufficient credits to qualify for June graduation. Students may not choose to repeat core academic courses that have been previously completed with a passing grade if doing so creates an inability to earn sufficient credits to achieve annual promotion (grades 9-11) or graduation (grade 12).

## Assignment of Credits

Credits assigned to courses in grades nine through twelve reflect the number of instructional hours spent in the course. One unit of credit reflects approximately 120 clock hours of instruction, or a course that meets one period daily for a full year. Courses taken at schools other than Conestoga for remediation or acceleration must meet this standard to be approved. Credits earned in each course taken at Conestoga are designated to satisfy one or more graduation requirements. Listed in the heading of each course included in the *Program of Studies* are the categories to which the credits earned may be applied. The categories are as follows:

AV	American Voices	LC	Lang and Comp
BI	Biology	LF	Literary Foundations
BT	Business/Tech	MA	Math
CC	Student Services	PE	Physical Education
EL	Elective	SC	Science
EN	English	UH	U.S. History
FC	Fam/Con Sci	VP	Visual Performing Arts
GV	US Govt/Econ	WH	World History
HF	Health/Fitness	WL	World Languages

## Course Fees

Several course descriptions indicate that a course fee or a lab fee is required of students to help defray the cost of materials associated with instruction. No student should avoid electing a course on the basis of a course fee requirement. For eligible students, course fee waivers may be confidentially obtained from a school counselor or from the Assistant Principal for the Academic Program.

## Blended Learning

In the development of the Conestoga schedule, there may be opportunities for students to participate in blended learning opportunities for Core and/or Elective courses. The instructional model for these courses will incorporate in-person and virtual learning environments and work may be done synchronously as well as asynchronously. Students interested in learning more about blended learning offerings are encouraged to speak with their school counselor.

## Pennsylvania Keystone Exams

Keystone Exams are required for all Pennsylvania students for two purposes.

First, the Keystone Exams in Algebra 1, Literature, and Biology are used by Pennsylvania to satisfy federal testing requirements. All students enrolled in Algebra 1, Biology, and American Voices will be required to take Keystone Exams for these courses during the May testing window. Newly enrolled students, who have already completed the work in the applicable courses prior to their arrival at Conestoga but did not take the corresponding Keystone Exam or its equivalent from another state, will be required to take that exam before the end of their junior year.

Second, Pennsylvania requires all students to demonstrate proficiency in Algebra 1, Literature, and Biology through one of the state-approved pathways in order to receive a high school diploma. Additional information about the pathways can be found on the District website.

All courses with a corresponding Keystone Exam are identified throughout the *Program of Studies* with the Keystone symbol:



Please note: This information reflects requirements reported to schools from the Pennsylvania Department of Education at the time of this publication.

## Schedule Changes

Student course selections should represent firm course choices on the part of the student and parent. Changes are not encouraged. A parental conference may be required when a change is considered absolutely necessary. Schedule changes will not be made to accommodate late arrival, early dismissal, period order requests, and/or lunch privileges for juniors and seniors. Requests by parents, guardians and students for specific teachers, instructional teams, or sections will not be considered. Students should understand that a course change in their schedules may necessitate other changes, minor or major, in their schedules. Parents of students who need to opt out of a course or part of a course for religious or personal reasons should contact the student's counselor and submit a written request to the Assistant Principal for the Academic Program. Approved schedule changes are processed only during specific time periods to be announced and based on availability. Final approval for all schedule changes resides with the administration.

## Drops and Withdrawals

A student may drop a course with no record of the course appearing on subsequent report cards or transcripts if the change is effected before certain dates. If a student drops a course after the 1st week in October for a 1st semester course, the 1st week in January for a year-long course, or the 1st week in March for a 2nd semester course, a WP for withdraw passing or a WF for withdraw failing shall be entered into the student's academic record, depending on the student's grade at the time of withdrawal.

## Study Abroad

For course planning purposes, students interested in studying abroad should discuss options with their counselor in the school year prior to the year in which they plan to travel. It is the student's responsibility to provide Conestoga with verified grades and credits upon returning to Conestoga. High School level credits earned at a recognized institution will be treated as transfer credits. Grades earned while traveling abroad will not be factored into the student's CHS grade point average (GPA). Students participating in a study abroad experience are still expected to earn their TESD/CHS diploma in four years. Requests for exceptions to this must be made in writing to the building principal or designee at least one semester in advance of the travel abroad start date.

## Instructional Levels

**Note:** H level courses identified with (H\*) receive AP weight when calculating the Grade Point Average (GPA):

AP/H*	Advanced Placement
H	Honors
X	Accelerated
A	Academic

## Grade Point Average

The weighted GPA includes only leveled courses valued at 0.5 credits or greater. The weighted GPA is cumulative and gives no advantage to the student with more courses. Appropriate weight is assigned to grades earned in AP, Honors, Accelerated, and Academic courses. The unweighted GPA is computed on a traditional 4.0 system in which grades earned in all leveled courses are valued as follows: A's (90-100) 4.0, B's (80-89) 3.0, C's (70-79) 2.0, D's (65-69) 1.0, and F's (50-64) 0.0. Only those courses taken at Conestoga High School are included in the weighted or unweighted GPA.

## High School Courses Taken During The Middle School Years

Credits earned toward graduation begin with grade 9. Grade point average (GPA) is cumulative from grade 9 through grade 12. When courses which are traditionally viewed as predominately high school level courses are taken at a middle school, a record of them can be attached to the high school transcript. However, no credit will be awarded and the grade earned will have no impact on the student's GPA for grades 9 through 12.

## Conestoga Grading System Grading Scale

Grades below 65 reflect unsatisfactory achievement and are, therefore, not credit worthy. The lowest failing grade for a student who demonstrates effort and cooperation is a 55. A grade of 50 is the lowest grade issued to a student who does not make an attempt to complete an assigned graded task.

### Letter Grades

O - Outstanding	IN - Incomplete
S - Satisfactory	MX - Medical excused
N - Passing, but improvement is needed	P - Passing
U - Unsatisfactory	F - Failing

WP	Withdraw/Passing (no credit)
WF	Withdraw/Failing (no credit)
TR	Transfer credits

**Notes:** Courses taken in other educational settings will not appear on the Conestoga transcript. Documentation of these courses may be attached to the Conestoga transcript, but will not be included in the calculation of GPA.

## Pass-Fail Grading Option

A student who carries six major courses each semester may elect to be graded on a pass-fail (P/F) basis in one of the six major courses according to the following guidelines:

1. No course fulfilling a graduation requirement may be graded on a pass-fail basis.
2. The student must initiate the request for P/F grading by obtaining the Pass-Fail Grading Request Form in the Student Services Center.
3. The student must receive approval of the parent/guardian and obtain the signatures of the teacher, department chairperson, counselor, and Assistant Principal for the Academic Program, thereby notifying them of the intent to exercise the pass-fail grading option.
4. The properly completed P/F Grading Request Form must be returned to the Assistant Principal for the Academic Program on or before the deadlines indicated on the form. Requests received after the deadline will not be honored.
5. Once approved and registered, the pass-fail grading option will not be revoked; however, should the student earn a final course grade of 95 or higher, the numerical grade will be entered in place of the letter grade and will impact the GPA.
6. It is especially important that throughout the process each student considering pass/fail discuss the implications of alternate grading on college admissions and college placement opportunities. Counselors are available to answer any questions about this issue.

## Honor Roll

Honor Roll recognition at Conestoga High School is computed on an unweighted basis so that all students have an equal opportunity to be recognized, regardless of their course levels. Honor Roll is offered at three levels: Distinguished Honors, First Honors, and Second Honors. All three levels of recognition require that a student pass all courses taken, including majors and minors. To earn Honor Roll, a student must achieve one of the following requirements for all numerically-graded major subjects:

Distinguished Honors	95 average or higher
First Honors	90 average or higher
Second Honors	85 average or higher

A major subject is defined as any subject that carries .5 or more credit for a semester course and 1.0 or more credits for a full-year course.

A minor subject is any subject that carries less than .5 credit for a semester or less than 1.0 for a full-year course.

Because of their alternate grading timeline, Experiential Learning Opportunities will not be considered in Honor Roll calculations.

The names of students achieving Honor Roll are published each semester and at the end of the year.

## Advanced Placement Program

Conestoga High School students have an opportunity to complete college-level courses at the secondary level and may obtain college credit and/or advanced standing. To meet this objective, academically challenging courses have been carefully developed in cooperation with The College Board. AP courses are subject to an auditing process by The College Board to ensure that curricular requirements are satisfied. This process has been successfully completed for all Advanced Placement courses. In the spirit of the Equity Policy Statement of The College Board, Conestoga is committed to welcoming into AP courses all students who are willing to accept the challenge of a rigorous academic curriculum. Students are advised to discuss Advanced Placement requirements with their counselor, individual faculty members and department chairpersons.

## Departmental Scholar Recognition Program

These awards recognize graduating seniors who have excelled in a particular subject area or departmental curriculum during their four years of high school. Students qualify for consideration as a Departmental Scholar at the time of graduation if:

- They have earned outstanding final grades in all courses taken within that department or subject area, provided that the courses have been scheduled during the regular school session, excluding summer school
- These courses were Honors Level or the most advanced courses offered

Departments may elect to recognize achievement in specific disciplines within the department, e.g., art, music. In addition to the above criteria, each department may establish additional requirements. Upon meeting the following criteria, transfer students may be eligible to participate in the Departmental Scholars Recognition Program:

- Enrollment in Conestoga High School for two consecutive semesters immediately prior to graduation
- Validation of prior exemplary academic record
- Fulfillment of Department Scholar recognition program requirements

## National Honor Society

National Honor Society membership is based on a student's outstanding performance in the areas of scholarship, service, leadership and character. Students are invited to apply to NHS in the fall of 11th or 12th grade. Criteria to apply are a minimum cumulative weighted GPA of a 4.70 or an unweighted cumulative GPA of a 4.0 and completion of at least 2 year-long honors or AP courses at the time of application, active participation in the CHS community, demonstrated leadership and strong character. NHS members are expected to participate in monthly meetings, maintain their GPA (with at least one honors year-long course annually), leadership, and character while participating in at least 20 hours of approved community service.

### All-School Scholar Recognition Program

This program is designed to recognize at the time of graduation those students who have excelled across the full range of academic subjects. To earn Conestoga's All-School Scholar recognition, a student must meet the following criteria in grades 9 through 12:

- Earn at least twenty academic credits, or the semester course equivalent, graded numerically (English, Social Studies, Mathematics, Science and World Languages and/or AP Capstone) in grades 9 through 12
- Achieve a cumulative weighted GPA of 4.8 through the first semester of the senior year. **\*Students in the class of 2028 and beyond must achieve a cumulative weighted GPA of 5.0 through the first semester of senior year**
- Earn passing grades in all subjects
- Take at least nine (9) full-year, or the semester course equivalent, Honors/AP Level courses completed during the regular school session, excluding summer school
- Attend Conestoga High School for at least two (2) consecutive semesters immediately prior to graduation
- Provide validation, in the event of a transfer to CHS, of prior exemplary academic record

### NCAA Eligibility Standards

Students who intend to participate in Division I or II collegiate athletics are required to meet National Collegiate Athletic Association (NCAA) eligibility standards, which include the completion of high school courses. Only courses that have been approved by the NCAA can count toward fulfilling these requirements. The NCAA determines eligibility of courses on an ongoing basis. Be sure to look at Conestoga's list of NCAA-approved core courses on the Eligibility Center's website to make certain that courses being taken have been approved as core courses. The website address is [www.eligibilitycenter.org](http://www.eligibilitycenter.org). Enter Conestoga's school code 390295 for a complete list of approved courses. The NCAA typically determines courses as "not eligible" for one of two reasons: perceived level of academic rigor or subject area relevance. Students are encouraged to speak with their counselor and log onto the NCAA website using the information above for a complete listing.

### Certified Oral Presenter

Each Conestoga student has the opportunity to receive recognition as a Certified Oral Presenter. To receive this recognition, a student must deliver at least three "successful" presentations. A successful presentation is defined as: 1) a presentation a teacher has evaluated using the Conestoga Oral Presentation Assessment Matrix and 2) scores of three or better in all the categories on the matrix. A Certified Oral Presenter also earns a certificate of achievement. For further details, students should speak with a teacher or an assistant principal.

### Seal of Biliteracy Program

The Pennsylvania Seal of Biliteracy encourages students to study and attain proficiency in English and another world language to promote civic and global engagement. It also demonstrates that biliteracy and bilingualism are academically challenging endeavors. By earning the Pennsylvania Seal of Biliteracy, students demonstrate readiness to engage in the global community. To earn the Pennsylvania Seal of Biliteracy, a student must demonstrate competency in two or more languages (English and an additional world language, including American Sign Language) upon graduation from Conestoga. Please see the Seal of Biliteracy page on the District website ([www.tesd.net/Page/17215](http://www.tesd.net/Page/17215)) for more information, including the application and qualifying criteria.

### Rare and Extraordinary Circumstances

Occasionally, extreme individual or family circumstances may necessitate an exception to Conestoga's scheduling requirements to enable a student to schedule only those courses required for graduation. The student would be permitted to leave school before the end of the school day or to arrive at school after the start of classes. Before an exception can be granted, a conference involving the student, parent, the student's counselor, the Academic Support teacher (if applicable), the Student Services Center Chairperson, and the Assistant Principal for the Academic Program must be scheduled to consider the potential implications of a reduced schedule on the student's present and future educational and vocational opportunities. See Regulation #5113 for further information.

### Library

Library Mission:

The Conestoga High School Library is a dynamic learning environment that supports Tredyffrin/Easttown School District's mission to empower students to pursue their individual and collective potential as global citizens by creating a safe and equitable community that fosters well being, integrity, social responsibility and a passion for learning.

Library Vision:

The library is responsive to personalized teaching and learning in the 1:1 learning environment. The library strives to curate and provide access to inclusive, credible, current resources that support the curriculum and students' personal interests. Digital resources can be accessed in the library, in the classroom, and outside of school. Through collaboration with faculty and staff, instruction on the effective, ethical, and creative use of information is provided.

Students, faculty, and staff are welcome to use the library to read, study, collaborate, research, and use technology. The library is open from 7:30 AM to 3:30 PM on school days.

# ELO

## Experiential Learning Opportunities

At Conestoga, students will have a variety of opportunities to participate in experience-based learning activities that transcend classroom walls. Students interested in pursuing any of the activities described in this section should contact their counselor. Courses offered by other institutions that give grades shall be incorporated into the Conestoga record on a Pass/Fail (P/F) basis and shall not count toward GPA calculation.

### Senior Elective Experience

Conestoga's Senior Elective Experience is an optional program for seniors in good standing. The program provides an opportunity for students to explore a potential career area or other area of interest and gain experience outside of Conestoga. Students leave school the last four weeks before Commencement to participate in a program of observation or hands-on experience guided by a faculty advisor and a community sponsor. No credit is awarded.

### Service Learning

9307 Grades 11, 12 Semester/Year credit varies

Juniors and seniors may request special scheduling of required courses in order to free no more than half of the school day for experience-based learning experiences. Scientific research, community service, independent study, and communication projects may be guided by faculty advisors and community sponsors. The Service Learning course is governed by a signed contract stipulating the responsibilities of the student. Service Learning is evaluated on a Pass/Fail basis and has no impact on a student's grade point average (GPA) and class rank. Students interested in participating in this program should contact their counselors.

### Online Coursework

Grades 9, 10, 11, 12 Semester/Year credit varies

Only courses that are not already offered at Conestoga or are unable to run due to low subscription will be considered for this program. Parameters for Online Coursework:

- High school level courses only (no college courses)
- Parental and administrative pre-approval is required
- District funded (with a commitment from the student to complete the course)
- Will not count towards the 7 period cap
- May only count towards elective credits
- Students may take 1 credit per year of online coursework

The courses will appear on the Conestoga transcript with a grade designation of Pass or Fail, and the amount of credit earned. Typically, 0.5 credit will be issued for a semester course and 1.0 credit will be issued for a full year course. Students will earn an official grade report from the online provider of the course, but this grade will not be included in Conestoga's GPA or honor roll calculations.

Interested students can find District-approved online courses on the Conestoga Student Services website, and may submit proposals to participate in courses not listed.

### Early Admission to College

Chapter 4, Section 4.72 (General Curriculum Requirements) of the PA School Code allows for advanced students to qualify for their high school diploma while attending college on an early admission basis. Students who wish to accelerate their admission to college should contact their counselor to arrange a conference. Once certain about the desire to enter college early, the student should complete an Early Admission to College form, available in the Student Services Center or from the Assistant Principal for the Academic Program. The student should contact the counselor to arrange a conference to include the student, counselor, parents, and the Assistant Principal for the Academic Program. All costs associated with applying to and attending college are the responsibility of the student and their family. To qualify for a Conestoga diploma, students entering college early must take and pass courses approved in advance as being equivalent to the required courses at Conestoga. A typical three-credit, one semester college course will be equated with a 0.5 credit semester course at Conestoga.

### College Courses During High School

Students may elect to take college courses for credit and/or enrichment. College courses to be taken during the school day and/or for high school graduation credit must be approved in advance, and a maximum of four of the credits required for graduation from Conestoga may be earned through this program. Grades and credits earned outside of Conestoga High School have no impact on the student's grade point average (GPA) and are not recorded on the Conestoga transcript. College transcripts and/or grade reports provided to the District by a student or parent may be attached to the Conestoga transcript at the request of the student or parent. While Conestoga High School may, on occasion and where expressly stated in writing, grant credit for student-elected college or university courses, such courses are taken at the expense of students and their families, not the T/E School District. Therefore, the T/E School District is not responsible for any student tuition or online charges for any such course. All costs and transportation associated with taking college courses during high school are the responsibility of the student and the parent(s)/guardian(s).

### Dual Enrollment

Students at Conestoga High School have the opportunity to take Dual Enrollment courses instructed by Conestoga teachers. Dual Enrollment courses are sponsored by colleges and universities who contract with the Tredyffrin/Easttown School District, thereby allowing the student to earn both Conestoga credit and college credit upon successful completion. Students enrolled in courses designated as Dual Enrollment will have the opportunity to elect college credit by registering and paying for the course through the sponsoring college/university. Interested students should speak with their school counselor or assistant principal of academic programming to learn more about Conestoga's dual enrollment offerings.

### Student Aide Program

Grades 9, 10, 11, 12 Semester credit varies

Participation in the Student Aide Program is initiated by the student and approved by the appropriate high school faculty/staff member, counselor, parent(s)/guardian(s), and Assistant Principal for the Academic Program. Supervised by Conestoga personnel, student aides are given the opportunity to participate in a variety of learning experiences while at the same time help their peers and their school. Students typically participate in the program during their unassigned/study periods. Registration forms may be obtained from the teacher or Department Chairperson at the beginning of each semester. In addition to working as an aide for academic departments, students may work as an aide for Student Services, Attendance, Athletics, the Media Center, or the Communications Center.

### Independent Study

Grades 10, 11, 12 Semester/Year credit varies

Students who wish to pursue focused study within an academic discipline may wish to design an independent study with a teacher. Students interested in participating in this program should contact a counselor, teacher, department chairperson, or the Assistant Principal for the Academic Program to ensure an appropriate faculty member is assigned to supervise the work. The Independent Study course is governed by a signed contract stipulating the responsibilities of the student, which must be approved by a faculty member, department chairperson, counselor, parent or guardian, and the Assistant Principal for the Academic Program. Independent Study credit is not available for any course offered as part of the Program of Studies. Completed Independent Study courses will be listed on transcripts as modeled below.

<b>0597</b> English I.S.	<b>1297</b> Social St I.S.
<b>2297</b> Math I.S.	<b>2597</b> Computer Prog. I.S
<b>3197</b> Biology I.S.	<b>3297</b> Chem I.S.
<b>3397</b> Physics I.S.	<b>4097</b> French I.S.
<b>4197</b> German I.S.	<b>4297</b> Latin I.S.
<b>4397</b> Spanish I.S.	<b>4597</b> Italian I.S.
<b>9517</b> Computer Science I.S.	<b>9507</b> Art I.S.
<b>9537</b> Family Studies I.S.	<b>9547</b> Health I.S.
<b>9557</b> Music I.S.	<b>9567</b> Phys Ed I.S.
<b>9577</b> Technology Ed. I.S.	<b>9587</b> Theatre I.S.
	<b>9597</b> TV Production I.S.



## Chester County Intermediate Unit

The Chester County Technical College High School (TCHS) is operated by the Chester County Intermediate Unit on behalf of Chester County’s 12 public school districts. The TCHS Pickering Campus is a comprehensive public high school specializing in Career and Technical Education (CTE). Students in grades 9-12 attend on a full or part-time basis. CTE programs prepare students for success in college, the workplace and life. All CTE programs at TCHS are designated as High Priority Occupations (HPO) by the Pennsylvania Department of Labor and Industry, and are aligned with the Pennsylvania State Academic Standards and national industry certifications. TCHS Pickering offers a complete selection of academics including college prep classes.

CTE programs lead seamlessly to postsecondary education through the Pennsylvania Department of Education’s (PDE) Students Occupationally and Academically Ready (SOAR) Programs of Study. The mission of SOAR is to prepare Students (who are) Occupationally and Academically Ready for college and careers in an increasingly diverse, high performing workforce. Graduates of TCHS Pickering’s approved SOAR programs who meet challenging academic and technical criteria qualify for several free credits at over twenty-five participating colleges across Pennsylvania. These include the Pennsylvania College of Technology, Delaware County Community College, Montgomery County Community College, Clarion University, Thaddeus Stevens College of Technology and Harcum College. For more information about SOAR and the complete list of participating colleges and postsecondary programs please see your school counselor.

For more information about all of the rigorous Career and Technical Education programs, please visit: [www.cciu.org/tchpickering](http://www.cciu.org/tchpickering)

### Chester County Technical College High School

Grades 9, 10, 11, 12

Half/Full Day Program

9999

Students in grades 9-12 have the opportunity to pursue a career technical course of study at the Technical College High School on either a half-time or a full-time basis. Students attending on a half-day basis will be required to meet all Conestoga graduation requirements. Full-time students take both their academic and career technical courses at TCHS-Pickering, and may continue to participate in Conestoga athletics and activities. TCHS issues its own report cards and credits to students as they advance through the program. These credits will appear on the Conestoga transcript as transfer credits. Upon satisfactory completion of their program, students are awarded a Conestoga High School diploma. Transportation is provided by the Tredyffrin/Easttown School District. Interested students should see their counselors. TCHS offers a rich variety of technical education programs including Animal Science, Auto Collision, Auto Service, Carpentry, Commercial and Graphic Arts, Computer Information Systems, Cosmetology, Criminal Justice, Culinary Arts, Early Childhood Care and Education, Electronics and Robotics, Engine Technology, Pre-Nursing, Health Occupations, and Sustainable Energy Engineering.

#### Allied Health Science Technology

Grade 12

Year

2 credits

Available through Paoli Memorial and Phoenixville Hospitals, this program exposes academically talented students to the numerous health careers available today. It includes 7.5 hours per week of clinical and classroom experience in a health care facility. Students’ clinical experiences are supervised by the program instructor in collaboration with hospital staff, who serve as mentors. Enrollment at each location is limited. Transportation is not provided by the District. The two credits earned through this program will be documented on a Pass/Fail basis on students’ transcripts.

**Clinical experience:** The clinical segment of the program provides students with a wide variety of experiences in the various departments of a health care facility, including therapeutic, diagnostic, informational and environmental services. Mentors in specialty areas provide an overview of the following: scope and nature of practice, career opportunities, post-secondary education requirements, practical experience, integration of health care systems, and professional development. Mentors evaluate student learning experiences, including knowledge development, attitude toward learning and applicable skill development.

**Classroom experience:** The classroom component of the Allied Health Program includes instruction in anatomy and physiology, medical terminology, safe practices, medical ethics, legal requirements, interpersonal dynamics and communication, history, current trends and the future of health care. In addition, advance preparation for clinical rotations, maintenance of a daily log, and a written report of clinical experiences are required.

**Teacher Academy**

Grade 12                      Year                      2 credits

Teacher Academy: Offered by the Chester County Intermediate Unit, is a two-credit college preparatory program for high school seniors interested in pursuing a career in the field of education. In addition to earning two high school credits for the program, students have the option to enroll in a dual enrollment program with Delaware County Community College (DCCC). This dual enrollment program consists of 9 college credits, awarded for the completion of the following courses: EDU 110 Introduction to Teaching; EDU 215 Theory and Field; and ENG 100 English Composition. The Academy provides an introduction to the knowledge and skills required to work in the teaching profession.

The course consists of 7.5 hours/week (90 minutes/day, either morning or afternoon) divided between classroom instruction and internships with certified, tenured teachers at all grade levels, resulting in approximately 180 hours of instruction and 90 hours of internship experience. In addition, guest speakers from the educational field will present throughout the year; students will also participate in relevant field trips. As a culminating project, students complete a portfolio. The credits earned through this program are documented on a Pass/Fail basis on the students' transcripts.

To apply online, or for more information, please go to: <http://www.cciu.org/page/281>

**Driver Education Behind-the-Wheel Training**

**Prerequisite: Completion of Highway Safety**

The Chester County Intermediate Unit (CCIU) provides behind-the-wheel training programs for students in the Tredyffrin/East-town School District on the weekend and after school. Students may be able to complete all or some of the required six (6) hours during study hall or free periods. All students must be 16 years of age and have obtained a license or learner's permit before they can begin behind-the-wheel training. Eligible students may enroll by completing a registration form, available in the Main Office, in the Student Services Center or from the Highway Safety instructor, and mailing it to the Chester County Intermediate Unit with the required fee. The fee for 2024-2025 was \$637.00 and is subject to change for the 2025-2026 school year. Payment can be made by personal check or by VISA or MasterCard. Parents will be contacted by telephone to confirm appointment times. No school credits are offered for Behind-the-Wheel Training.



## **Individualized Learning**

Kate McGranaghan, Department Chairperson

Individualized programs are designed to meet the unique educational needs of eligible students and are approved by the Individualized Educational Plan (IEP) team. Prerequisites and credit values vary.

### **Academic Seminar\*\***

Grades 9, 10, 11, 12 Semester .25-.5 credit

Eligible students work under the direction of a faculty member in the academic seminar program to access the general education curriculum. Instruction is in accordance with the student's IEP goals and objectives. Instruction will occur in areas identified by the IEP team. These areas often include: writing, reading, mathematics, study skills, organizational skills, social skills, executive functioning, resiliency and post-secondary school transition. Student progress is monitored in alignment with their identified IEP goals. Seniors will participate in lessons aimed at post-secondary transition skills in order to help prepare them for success after high school.

### **Academic Reading\*\***

Grades 9, 10, 11, 12 Semester .25-.5 credit

Eligible students receive supplemental instruction in reading skills as identified in the student's IEP. Reading instruction may encompass any or all of the following: decoding, fluency, comprehension, and vocabulary. Students are taught using evidence-based materials and instructional practices. Students are assessed using accepted practices of progress monitoring as described in their IEP.

### **Academic Skills\*\***

Grades 9, 10 Semester .25 credit

Eligible students receive instruction in accordance with their IEP goals in the areas of written expression, organization, and study skills. Instruction in this course is intended to supplement the regular offerings of the English department, and is individualized by the student's IEP team. In the organization and study skills strands, students are taught explicit strategies to improve their skills in the areas of time management, note-taking, creating a study plan, preparing for tests and planning long-term projects. In the written expression strand, students are provided explicit instruction and practice in writing narrative, expository, persuasive and literary pieces of writing.

### **Post-Secondary Transition Courses\*\***

Grades 9, 10, 11, 12 Semester/Year .25-1.0 credit

Eligible students receive instruction and practice in skills related to their post-secondary transition needs as identified in their IEP. Post-secondary transition encompasses three primary areas: preparation for education/training, employment skills, and independent living skills. Student skills in each of these areas are assessed through the IEP team process and appropriate goals and specially designed instruction are identified in the student's IEP. Programming may consist of experiences off-campus in coordination with the Chester County Intermediate Unit or other relevant agencies. Individual courses include: (1) Transition Math Skills; (2) Transition Reading Skills; (3) Transition English Skills; (4) Pre-Vocational Skills; (5) Independent Living Skills; and (6) Pre-Algebra Concepts.



## Student Services

Jennifer Kratsa, Department Chairperson

The mission of the Student Services Department is to promote a comprehensive developmental school counseling program that provides services to students in grades nine through twelve and supports students' individual academic, social, and personal goals. Students are assigned to their counselor alphabetically in ninth grade and remain with the same counselor throughout their time at Conestoga.

With an appreciation for individual differences, our goal is to encourage a positive and healthy learning community for all students. The ultimate desire is that students take responsibility for their education and understand their role as lifelong learners and contributing community citizens.

Counselors provide assistance with raising students' self-awareness, self-advocacy, educational and post-high school planning, career awareness, standardized testing, and social/emotional concerns. In addition to meeting with students individually, they deliver programs and services during the day and several evenings throughout the school year. Information can be found on the Student Services website regarding dates and times of programs. Once a month counselors join the group of speakers at monthly grade-level parent meetings to discuss student topics for that month, answer parent questions and engage in open dialogue.

Mental Health Specialists are also available as resources to students and families. These licensed counselors assist with students who demonstrate a higher need for care, are experiencing crisis, or are eligible for additional support services through an IEP or 504 Plan. Students may be referred to a Mental Health Specialist to assess personal safety, family concerns, and/or substance abuse.

Students wishing to confer with a counselor may come to the center during a study hall, free period, or before / after school. Appointments are not required but are recommended.

### Student Daytime School Counseling Program Series includes:

August	College Application Process	(Grade 12)
September/ October	College Visits	(Grades 11-12)
February	Course Selection Lessons	(Grades 9-11)
March	Career Week	(Grades 10-12)
March	Scoir Training	(Grades 9-10)
May	College Fair	(Grades 10-11)

### Parent/Student Evening School Counseling Program Series includes:

September	College Application Presentation	(Grade 12)
November	College Admissions Night	(Grade 11)
March	Financial Aid Evening	(Grades 9-12)
April	Sophomore Springboard	(Grade 10)
May	NCAA Presentation	(Grades 9-12)

### Resources for Students and Parents:

Scoir – A college and career internet-based tool students use to research colleges, compare their academic standing and admissibility, complete career assessments, and ultimately facilitate the college application process. In the sophomore year, students obtain training and establish their accounts. Parents are given information on setting up a parent account.

Student Services Website – [www.tesd.net/page/657](http://www.tesd.net/page/657) - A comprehensive guide to services, dates and times of programs, contact information for counselors, junior and senior “to-do” lists and timelines, college and career resources.

Junior Post-High School Planning Meeting – Parents are invited in the month of December to schedule an appointment to join their child to discuss post-high school and college planning. Junior planning meetings are conducted from December to May based on student readiness.

College Visits – Over 200 colleges and universities are represented through individual visits and the annual college fair. This is an opportunity for juniors and seniors to attend an information session, meet the college representative, ask questions about the admission process and learn about the campus. It is also an excellent way to gain information about a college when a trip to the campus itself is not possible. This resource is for students only.

### College and Career Transition

Grade 11 Semester .25 credit  
**9372 CC**

This required course for 11th grade students will enhance college and career readiness skills, and fulfill a PA graduation requirement. College and Career Transition (CCT) will increase students' capacity to navigate different environments with renewed self-awareness and further explore post-secondary options such as 2-or 4-year college, career/technical institute, employment, and year of service. Students will build essential skills in resiliency, decision-making, and effective communication. Topics will include but are not limited to: healthy relationships, active listening, substance misuse, strengths and growth needs, financial literacy, college application process and self-care.

# AP CAPSTONE

The AP Capstone program is a two-course sequence of AP Seminar and AP Research that equips students with the independent research, collaborative teamwork and communication skills that colleges look for in an applicant. Both AP Seminar and AP Research are designed to complement and enhance the in-depth, disciplinary specific study experience offered in other AP Courses. Students who earn scores of 3 or higher in the AP Seminar and AP Research course along with four additional AP Exams of their choosing will receive an AP Capstone Diploma. Alternatively, students who earn scores of 3 or higher on the AP Seminar and Research Exams only will receive the AP Seminar and Research Certificate.

## AP Seminar

Grades 10, 11, 12      Year      1 credit  
**9000**

What is truth? What does it mean to look at something from a moral or ethical perspective? What role does ‘play’ have in society? These are just some of the many questions that students in AP Seminar consider in a course that prioritizes curiosity, inquiry, argument, personal interest, choice, and discussion.

AP Seminar is an interdisciplinary course that takes students beyond the boundaries of single discipline subject courses, engaging students in academic and real-world topics of inquiry. In the first semester, students will focus their study on the topics: Truth, Justice, and Play. Throughout these units, students will work individually and in teams to dive deep into these issues, present their findings, and propose creative solutions.

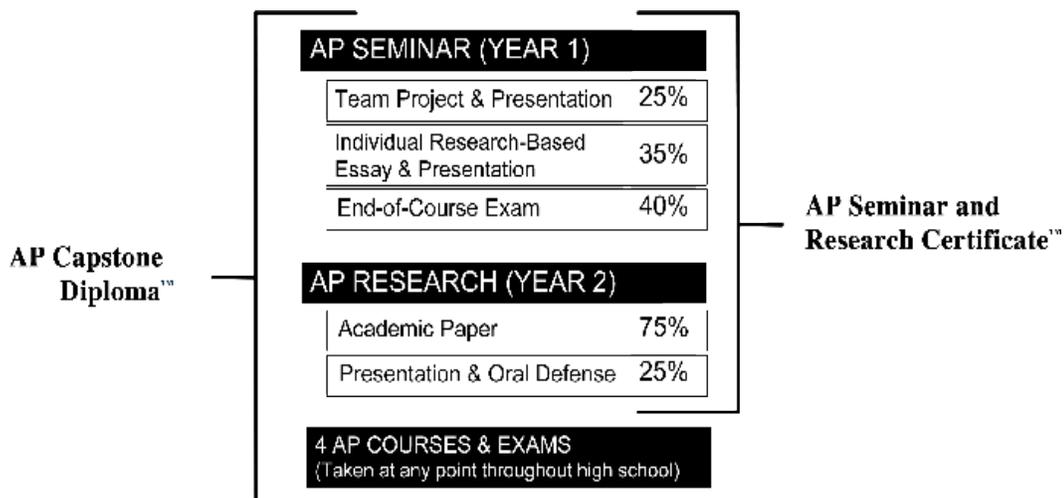
In the second half of the year, students are given autonomy to complete College Board performance tasks, formulating their own lines of inquiry, designing their own projects, and sharing their research with broader audiences. These Performance Tasks become part of students’ AP scores. College Board assesses the students based on the following components: Team Project & Presentation - 25%, Individual Research-Based Essay & Presentation - 35%, and End-of-Course Exam - 40%. Beyond the AP designation and the classroom experience, Seminar provides students with meaningful experiences that mirror the self-directed and collaborative skills students will need in college and beyond.

## AP Research

Grades 11, 12      Year      1 credit  
**9100**

**Prerequisite: AP Seminar**

The second course in the AP Capstone experience allows students to design, plan, and conduct a yearlong research-based investigation on a topic of individual interest. Through this inquiry and investigation, students demonstrate the ability to apply scholarly understanding to real-world problems and issues. Students further the skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, synthesizing and statistically analyzing information to build, present, and defend an argument. This investigation culminates in a substantial academic research paper which contributes 75% of the student's AP score, and a presentation with an oral defense which contributes 25% of the student's AP score.



# E

## English

Karen Gately, Department Chairperson

The purpose of Conestoga's English curriculum is to provide continued, concentrated instruction in written composition and oral communication, and to focus on the literature of America and the world.

### Department Requirements

4.0 credits in English to include 1.0 credit in Literary Foundations during 9th grade, 1.0 credit in American Voices in 10th grade, 1.0 credit in Language and Composition in 11th grade and 1.0 credit in Comparative Literature or AP Literature and Composition during 12th grade.

**Written Communication:** The goal of instruction in composition is to help students develop confidence in their ability to express ideas effectively in writing. They are shown how to use writing processes, from exploring ideas about what to write to revising and refining expression of thought. A research component is part of year-long courses.

**Oral Communication:** Every student engages in a number of speech activities during each course. Continuing objectives are to help students develop a sense of confidence when addressing an audience and to practice listening skills.

**Literature:** In addition to thoughtful, critical analysis of literature, a major goal of the literature program is to acquaint students with their global literary heritage. Whether organized by chronology, by theme, or by literary genre, the study of literature emphasizes the relationships among literary works, the cultures in which they have been produced, and the reader.

**Advanced Placement Courses, Grades 11 and 12:** Designed to be aligned with the Advanced Placement examinations of The College Board, the English Department's AP courses enable students to study in depth works of fiction, nonfiction, and rhetoric. Entering students should exhibit a willingness to accept the challenge of a rigorous academic curriculum which demands a high level of writing skill, an ability to read major works independently and thoughtfully, and an expectation to contribute critically and creatively to a seminar-type class. AP English Literature and Composition prepares students for the *Advanced Placement Literature and Composition* exam, and AP English Language and Composition prepares students for the *Advanced Placement Language and Composition* exam. Prior to taking AP English courses, students are encouraged to take one or more Honors English courses.

**Honors Courses:** Courses at the Honors level provide students the opportunity to develop maturity of thought and expression in a challenging program of literature, writing, and discussion. A considerable amount of outside reading and research is expected of students who receive honors credit.

**Accelerated Courses:** The accelerated level of English is designed for college-bound students who desire a comprehensive program of literature, writing and speech. In literature classes students are expected to read core novels and plays with the class, participate in class discussion, and respond to literature and topical issues through writing.

**Academic Courses:** The academic level of English prepares students for college. The pace of instruction is adjusted to meet the needs of the students. Thinking skills are emphasized as is the application of skills and strategies in reading and writing about literary works and current issues.

**Writing Support:** Staff members located in the Achievement Center and library provide help with writing assignments for coursework, college application essays and scholarship applications.

**AP Capstone Program:** For students interested in pursuing advanced and interdisciplinary study related to English during their 10th, 11th, or 12th grade years, please see the AP Capstone Program information found on page 15.

## English Courses

### Literary Foundations

Grade 9 Year 1 credit  
**0300 (H) 0301 (X) 0311 (X) 0312 (A) LF**

In this course, students will explore themes in literature written across a variety of genres (e.g. epic, drama, prose, poetry, narrative non-fiction, informational and persuasive texts) and contexts (e.g. historical, geographical, cultural, temporal). Through this exposure to a diversity of literary voices, students will acquire an understanding of how to read and analyze a variety of texts at the high school level, as well as develop their own reader's identity. Additionally, students will participate in writing as part of a recursive process with their reading, practicing written expression across a variety of modes (e.g. analytical, persuasive, narrative, informative). This course will provide the foundations for critical thinking, close reading, literary vocabulary, analytical and creative writing, and speaking and listening skills that will carry through their high school career and beyond.

### American Voices



Grade 10 Year 1 credit  
**0320 (H) 0321 (X) 0331 (X) 0332 (A) AV**

Continuing the explorations of the previous year, students will be expected to sharpen and deepen their thinking in relation to culture, literature, and their intersections. American Voices is a careful consideration of American literature, and seeks to confront the questions inherent in that phrase: What is America? What is literature? American literature? Where is our place in relation to all of that? Through an investigation of the historical and modern canons, and explicit address of their gaps, we will wrestle with the unusual properties of our nation past and present, with the ultimate aim of articulating its future. Reading and writing continue to be presented as complementary skillsets. Student readings will be drawn from culturally significant works of art and fiction throughout American history. Writing assignments will likely include personal reflections, creative and indirect approaches to analysis, as well as a lengthy work of analysis in preparation for the greater scholarly demands of upper class and collegiate coursework. This course content prepares students for the Pennsylvania Keystone Exam.

### Language and Composition

Grade 11 Year 1 credit  
**0050 (AP) 0070 (H) 0071(X) 0072(A)\* LC**

Language and Composition focuses primarily on the reading and writing of the best non-fiction from both contemporary and classical sources. Students read critically to discover the rhetorical strategies of good writers and to apply those strategies to their own writing. Students analyze audience and purpose as well as mechanics, diction, and style in the readings and in their own writing. Students can expect to write across multiple forms, including memoir, argument, personal essay, and creative non-fiction. In addition to a selection of novels and non-fiction books, students will practice critical reading and analysis by examining shorter works, such as letters, speeches, historical documents, newspaper editorials, and longform periodical features. The course also focuses on news literacy and reflects the newest trends and technology in 21st century journalism. Across all levels, students will create research projects based on both primary and secondary sources. Students who take the course at the AP level are prepared to sit for The College Board's AP English Language and Composition Examination.

### Comparative Literature: Mayhem

Grade 12 Year 1 credit  
**0410 (H) 0411 (X) EN**

This course will focus on What if? Considering diverse genres, students examine how writers, filmmakers, and other storytellers explore chaos, conflict, and disorder in literature from around the world. In this course, we will delve into works that embrace the unpredictable, where societal norms collapse, and where characters face the extremes of human experience. From epic battles in science fiction, to moral dilemmas in dystopian worlds and psychological unraveling in various other genres, we will compare literary representations of mayhem across cultures, genres, and time periods. In examining these topics in writing, film, art, and music, students will research and compose a literary inquiry essay throughout the school year.

**Comparative Literature: Mirrors**

Grade 12 Year 1 credit  
**0430 (H) 0431 (X) EN**

How does literature explore the way people form and shape their identities? What role does a community play in shaping that identity? What happens when the individual comes in conflict with that community? This year-long course will focus on stories where protagonists come of age and establish their identities. Core texts will explore the role of a community in the coming-of-age story where protagonists may find themselves questioning their society. In examining these topics in writing, film, art, and music, students will research and compose a literary inquiry essay throughout the school year.

**Comparative Literature: Masks**

Grade 12 Year 1 credit  
**0440 (H) 0441 (X) EN**

From the beginning of civilization, humans have turned to performance to understand themselves and the world around them. This course will focus on a variety of performances: comedies, tragedies, historical fiction, musicals, etc. This is a survey course that is meant to introduce students to a myriad of different types of performative literature. Beginning with the traditional Greek texts where drama started, students will be exposed to historical plays as well as current and contemporary playwrights that ask probing questions about life and humanity. In examining these topics in writing, film, art, and music, students will research and compose a literary inquiry essay throughout the school year.

**AP Literature and Composition**

Grade 12 Year 1 credit  
**0040 (AP) EN**

AP Literature and Composition is an enriched reading and writing course that encourages students to explore a wide variety of literature from many cultures and many genres. Beginning with three major novels for summer reading and progressing through a series of plays, short stories, and novels, the course covers such writers as Shakespeare, Bronte, Morrison, Atwood, Huxley, Joyce and O'Connor. In addition, the students explore a wide range of verse, including the work of Renaissance, Metaphysical and 17th Century poets. The course includes a lengthy literary research paper. Students are encouraged to sit for The College Board's *AP English Literature and Composition Examination*.

**Elective Courses****Language of Film**

Grades 11, 12 Semester .5 credit  
**0420 (H) 0421 (X) EL**

This course is an introduction to the language of film, examining how filmmakers compose a shot in the same way that authors compose a sentence. Students will develop a formal appreciation for the art of film and develop a critical vocabulary to understand the unique grammar of cinema. Students will explore the language of film to determine how it reflects the beliefs and values of society, to explore how films make us think and to examine the relationship between the viewer and the film. The class will experience many genres and styles including narrative, documentary, and experimental films.

**The Writer's Craft**

Grades 11, 12 Semester .5 credit  
**0600 (H) 0601 (X) EL**

This course is designed for students with an avid interest in creative writing. Students will examine specific crafting strategies of published writers of fiction, nonfiction, playwriting, screenwriting, and poetry and will use those strategies in their own writing. Through workshop and seminar formats, the course will build a community of writers comfortable in taking an idea from its initial spark to a finished product. Students will compose a portfolio of their writing and will have an opportunity for publication.

**Journalism Foundations**

Grades 9, 10, 11, 12 Semester .5 credit  
**0520 (H) 0521 (X) EL**

Journalism Foundations is a semester course for students interested in contributing to *The Spoke* and *Pioneer* or learning more about student journalism in general. Students will learn the fundamentals of journalism: writing, reporting, photography, layout and design, copy editing, AP style, law and ethics, publishing software and marketing. Students will have the opportunity to write news, features, columns, sports and opinion pieces.

## Co-Curricular English Electives

Co-curricular electives do not satisfy the English requirement for graduation, but provide valuable experience in communication.

### Newspaper (*The Spoke*)\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**0405 BT, EL**

*The Spoke* is Conestoga's student newspaper. Published seven times during the school year, *The Spoke* offers students the opportunity to write news, features, columns, sports and editorials of interest to the school and community. Students gain experience in graphic arts, photography, editing, advertising, design and layout. Selection is by application and recommendation. The application and teacher recommendation forms can be obtained during Course Selection Week from English teachers, the newspaper advisor(s) or a counselor (in the case of 8th graders). Forms must be returned to *The Spoke* by the announced deadline. Prior to the close of the course selection period, applicants will be notified by the advisor whether they have been selected.

### News Editors' Seminar (*The Spoke*)\*\*

Grades 10, 11, 12 Year .5 credit  
**0415 BT, EL**

Experienced staff members of *The Spoke* may apply for editorial and management positions on the following year's Editorial Board which oversees production of *The Spoke*. These leaders are required to schedule News Editors' Seminar in addition to Newspaper. Prior to the close of the course selection period, applicants will be notified by the advisor whether they have been selected.

### English Language Development\*\*

Grades 9, 10, 11, 12  
**0289 EN, EL Semester 1 .5 credit**  
**0299 EN, EL Semester 2 .5 credit**

The English Language Development course is open only to students whose native language is not English and who have met the entry criteria as stated in the District's ELD policy. The course is designed to provide instruction in listening, speaking, reading and writing English. The course curriculum is designed to develop English language skills including grammar, usage, vocabulary, idioms and American customs. Language structure and form will be learned in authentic contexts. Weekly journals include informal entries and reader responses, ranging from 10-20 pages per week. Juniors will conclude the year with an independent writing project. **ELD courses do not currently meet NCAA eligibility standards for English credit.**

### Yearbook (*Pioneer*)\*\*

Grades 9,10,11,12 Semester 1 .25 credit  
**0425 BT, EL**

Yearbook is a course for students who wish to be a part of the production of *The Pioneer*, the school's yearbook. Involved students' responsibilities include: writing, photography, design, and budgeting. Interested students should be able to interview and work with others, maintain journalistic principles in writing and design and work independently under tight deadlines. Yearbook staff members should be interested in design, with a keen eye for detail. Interested students should complete the yearbook interest survey to enroll in the course.

### Yearbook Editors' Seminar (*Pioneer*)\*\*

Grades 10, 11,12 Year .5 credit  
**0435 BT, EL**

This course is for current and future *Pioneer* editors, who will be responsible for bringing closure to the publication of the current yearbook and for carrying out training, planning, and leadership activities for the next year. Prior to the close of the course selection period, applicants will be notified by the advisor whether they have been selected.

### Literary Magazine (*The Folio*)\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**0445 BT, EL**

Conestoga's literary and art magazine is a course for students who wish to serve on the magazine production staff of *The Folio*. Student writers and artists work together to produce two magazines per year, featuring the best writing and art from the school. Editors, chosen by the faculty advisor, direct students in the selection of format, theme, material, layout, and artwork. The requirements are that students be interested in writing and art, able to critique submissions, and willing to fulfill designated duties. Students are required to submit at least two literary or artistic submissions per semester. Inkwell, a coffee-house and open mic night, serves as the magazine's major fundraising activity. Statements of interest, along with a teacher recommendation, may be obtained during course selection week from an English or Art teacher, the magazine advisor, or a counselor (in the case of 8th graders). Interested students may enter "Literary and Art Magazine" during course selection.

# SS

## Social Studies

Emily McGready, Department Chairperson

The Social Studies program is designed to help students understand their American heritage as it developed and evolved in western and non-western civilizations. In addition, the American systems of government and economics are emphasized so that students will be able to function as responsible, informed citizens, tolerant and understanding of individuals living in a diverse, multicultural society.

To achieve the curricular objectives, courses are offered at varied levels of difficulty. The required course sequence is: World History; United States History; United States Government and Politics / Economics.

Social Studies classes may be instructed in blended level environments. In these classes, teachers will differentiate instruction to meet the needs of individual learners.

**AP Capstone Program:** For students interested in pursuing advanced and interdisciplinary study related to Social Studies during their 10th, 11th, or 12th grade years, please see the AP Capstone Program information found on page 15.

### AP World History

#### World History

Grade 9 Year 1 credit  
1000 (AP) 1010 (H) 1011 (X) 1012 (A) WH

Using a chronological approach, students survey the political, economic, social and cultural development of Africa, the Americas, Asia and Europe. Major areas of study include early world civilizations, exploration, the Renaissance, Reformation and Enlightenment in Europe, political and industrial revolutions, 19th century nationalism and imperialism, 20th Century wars, decolonization and globalization. The period from 1450 to the present is emphasized in all levels except at the AP level which begins in the year 1200 CE. Upon successful completion of this course, students should be able to:

- understand the relationship of chronology and cause and effect on the development of the region
- describe major historical thoughts, trends, and events
- recognize the contributions of each region in art, literature, science, religion, and music
- evaluate regional status and involvement in world affairs

### AP United States History

#### United States History

Grade 10 Year 1 credit  
1200 (AP) 1210 (H) 1211 (X) 1212 (A) UH

Using a chronological approach, students survey the political, economic, social, and multicultural forces present in United States history. Major areas of study include imperialism and expansion, progressivism and reform, prosperity and depression, war and foreign policy, civil rights, immigration and population growth, and present-day issues associated with a post-industrial society. The period from 1850 to the present is emphasized in all levels of this course, except at the AP level which begins with colonial times. Upon successful completion of this course, students should be able to:

- identify dominant themes and values in American society
- describe the transition of an agrarian to a post-industrial society
- discuss and evaluate the evolution of U.S. foreign policy
- discuss and evaluate various reform movements
- understand America's political philosophies as delineated by our two party-system
- recognize that America's future is interwoven into a global mosaic

**AP United States Government and Politics**  
**United States Government and Politics/**  
**Economics**

Grade 11	Year			1 credit
<b>1700 (AP)</b>	<b>1710 (H)</b>	<b>1711 (X)</b>	<b>1712 (A)</b>	<b>GV</b>

AP US Government and Politics and United States Government and Politics/Economics requires students to analyze United States government and politics and explore economic theory and practice. After examining the underpinnings of the U.S. Constitution, students will begin to interpret and apply the Constitution to governmental policy. Students will develop an understanding of the principles and processes of formal institutions (Congress, the Presidency, the Bureaucracy, and the Judiciary) and informal institutions (interest groups, political parties, the media). The course will examine the basic values influencing U.S. politics and how these values affect the political behavior of institutions and the American electorate. The course will introduce students to the economic perspective, and students will develop an understanding of economic indicators and the role of government in economic decision-making. The course will emphasize the importance of civic life and the rights and responsibilities of citizenship. Finally, students will examine civil liberties and public policy from both a legal/theoretical and a practical perspective.

**Elective Courses**

**Ancient World History and Geography**

Grades 11, 12	Year		1 credit
<b>1130 (H)</b>		<b>EL</b>	

Have you ever wondered how the world came to be as it is today? How the earliest humans developed and adapted to the world around them? How religious, political and legal frameworks began and became structural systems giving societies direction? How many of the cultures of the ancient world were more advanced than the ones that followed? How in so many ways, history repeats itself? A full year elective course for the lover of history, Pre AP Ancient World History and Geography seeks to answer these questions. Covering events from the dawn of humanity through 1250 CE using a chronological approach, students will study the political, economic, social and cultural cornerstones that have shaped the development of humanity. Major areas of study include the Ancient Period from human adaptation and migration in the Paleolithic World through the development of states, religions and societies within the Afro-Eurasian World around 600 BCE, the Classical Period starting in 600 BCE and running through 600 CE. including East Asian, South Asian, Greek and Roman Empires and the Post Classical Period starting in 600 CE covering Early Islamic States, the Byzantine Empire and European Kingdoms along with Post Classical States in East Asia, the Mongols and the emergence of the Silk Road ending around 1250 CE.

**AP Comparative Government and Politics**

Grades 11, 12	Semester		.5 credit
<b>1320 (AP)</b>		<b>EL</b>	

Comparative Politics is designed for students with an avid interest in international politics and the study of various political systems. The course gives students the opportunity to explore crucial political and economic issues facing our world today, such as globalization, democratization, public policy, and citizen-state relations. Students will explore systems of six countries: Great Britain, China, Iran, Mexico, Nigeria, and Russia. By studying these countries, students will be able to examine and assess the strengths and unique challenges presented in widely differing political systems, such as a parliamentary democracy, a communist state, an Islamic theocratic republic, a newly-industrializing federal republic, an African federal republic transitioning from military to civilian rule, and a federation transitioning from communism to capitalism. The focus will be on modern events and recent developments in the international political arena. Students will be prepared to take the AP examination in May.

### Criminal Justice

Grades 11, 12 Semester .5 credit  
**1330 (H) 1331 (X) 1332 (A) EL**

Students will examine the U.S. criminal justice system, which includes law enforcement, prosecution, the courts, and corrections. The course emphasizes criminal law, trends in criminal activity, criminological theory, criminal defenses, and special issues such as juvenile delinquency and capital punishment.

### African-American Studies

Grades 11, 12 Semester .5 credit  
**1340 (H) 1341 (X) 1342 (A) EL**

This course will challenge students to explore the African-American experience through the lenses of history and culture. It will be both teacher-directed and student-directed. The curriculum will be organized into themes which include the following: race and identity; resistance and resilience of African Americans; leadership in the African American community; influence of African cultures and traditions in African American history and culture; influence of African American culture on American culture; the fight for freedom, equality, individual rights; current issues and future challenges in areas such as education, socio-economic status, cultural impact, and the persistence of discrimination.

### Asian American Studies

Grades 11, 12 Semester .5 credit  
**1350 (H) 1351 (X) 1352 (A) EL**

This course will challenge students to explore the Asian-American experience through the lenses of history and culture. The curriculum is organized into themes which include the following: race, culture, and identity; Asian culture and history, the Asian Diaspora, resistance and resilience of Asian Americans, leadership in the Asian American community, influence of Asian American cultures and traditions in Asian American history. In addition, there will be a focus on the influence of Asian culture in American culture; the fight for citizenship, equality, individual rights, current issues and future challenges in education, socio-economic status, cultural impact, and the persistence of discrimination.

### AP Microeconomics/AP Macroeconomics

Grades 11,12 Year 1 credit  
**1500 (AP) EL**

This course is designed to provide students with the fundamental tools for economic thinking. The course includes a study of microeconomics, which examines decision making by individual consumers and producers using concepts such as supply and demand analysis to determine pricing and production of goods and services. Business decisions of companies are analyzed by scrutinizing wages, material costs and sales revenue in order to make the most informed choices for that firm. These tools will be applied to macroeconomics in which the entire economy is studied. Inflation, interest rates, employment levels, and total production of goods and services are all influenced by governments (national and international), industries, and consumers. Students will understand the interrelationships among these sectors and interpret current economic trends and predict future ones. Students will be prepared to take both AP Microeconomics and the AP Macroeconomics examinations in May.

### AP Psychology

**Psychology**  
 Grades 11, 12 Year 1 credit  
**1600 (AP) EL**

Grades 11, 12 Semester .5 credit  
**1610 (H) 1611 (X) 1612 (A) EL**

Psychology is the study of mental processes and behavior. This course includes the following topics: the history of psychology, research methods, biological bases of behavior, sensation and perception, states of consciousness, learning, cognition, motivation and emotion, development, personality, testing and individual differences, abnormal behavior, treatment of psychological disorders, and social behavior. An opportunity is given for student research and class discussion. Demonstrations and experiments are emphasized, and extensive use of video supplements the text. Upon successful completion of this course, students should be able to:

- understand major concepts and theories in psychology
- devise simple experiments, interpret and generalize from results, evaluate the general validity of research studies
- build on critical thinking skills and synthesize concepts
- describe major psychological disorders and treatments
- apply psychological concepts to their own lives, engage in inductive reasoning and broaden self-awareness

## Social Studies

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### Philosophy

Grades 11, 12 Semester .5 credit  
**1800 (H)** EL

Philosophy is a discussion-based course that introduces the essential questions that have confronted people through the ages and the thinkers who have tried to answer them. The course takes an interactive, multi-media approach to learning through the use of films, podcasts, and other audio and visual sources with the goal of stimulating dialogue through philosophical investigation.

Throughout the semester, we will investigate: the nature of knowledge, human nature, free will and reality, Ethics, the Philosophy of Religion, and the Philosophy of Art. The class provides a forum to explore philosophical concepts such as identity, humor, certainty, human nature, religion, beauty, morality, and happiness. A primary goal of the course is to bring awareness through inquiry to the perspectives that surround these topics. Moreover, the course attempts to awaken students' natural curiosities through the use of one of the most basic tools: the question.

### Ethics, Inquiry, Discourse

Grades 11, 12 Semester .5 credit  
**1810 (H)** EL

What does it mean to live a good life? What is the right, good, and just thing to do? How should I make a decision when weighing competing interests? These questions are often at the center of one's personal, academic, and professional life. Ethics, Inquiry and Discourse (EID) encourages students to develop a clearer vision of themselves as individuals situated in communities and the world by studying Argumentation and Ethics.

Students will use commercials, speeches, artwork, podcasts, films and others' arguments to develop an understanding of methods of persuasion and how to develop their own arguments. As a discussion-based, seminar style experience, EID takes a collaborative approach towards understanding problems that have personal and societal implications through an ethical lens while also allowing students to develop skills in public speaking and independent research on topics of their choice. Resources and class activities will help students develop clarity on both the issues and their own perspectives as well as become more confident in presenting their views.

### Positive Psychology

Grades 10, 11, 12 Semester .5 credit  
**1620 (H)** EL (Course fee \$20)

When asked what they really want in life, most people respond: "To be happy." What is happiness? And what are the best ways of pursuing it? This interactive course explores this question through the lens of Positive Psychology, which is the study of the strengths that enable individuals and communities to thrive. Students will examine the scientific research underlying Positive Psychology and engage in practical exercises that promote and maintain well-being and happiness. Topics will include: optimism and altruism, forgiveness and gratitude, love and social connectedness, resilience and grit, flow and mindfulness, and compassion and empathy.

### Sociology

Grades 11, 12 Semester .5 credit  
**1400 (H)** **1401 (X)** **1402 (A)** EL

Sociology is the study of society and human behavior. After gaining an understanding of the theories and methods that guide sociological study, students will explore core concepts such as socialization, social networks, and social control. Students will also learn how sociologists conduct research and use core sociological concepts to help them understand current issues. Potential topics for study include gender roles, drug addiction, deviance, crime, gang activity, cults, conformity, prejudice, racism, self-fulfillment, social responsibility, and other issues pertinent to understanding the adolescent social experience.

### Additional Social Studies Electives:

Art History  
AP Art History

Complete course descriptions can be found in the Visual and Performing Arts Section of this program.

\*At this time, Art History and AP Art History do not meet NCAA requirements for social studies credit.

# M

## Mathematics

Allison Long, Department Chairperson

In all courses, students learn concepts and applications of mathematics through the integration of graphical, numerical, analytical and verbal processes. It is the recommendation and hope of the math department that all students successfully complete 4 credits of mathematics while at the high school. The department sets high expectations and expands access and opportunities for all students, while building the groundwork for future, more specific mathematical study. By emphasizing higher-order thinking skills (or mathematical habits of mind), the math curriculum is designed to prepare students for both college and career. At the core of this is a focus on problem solving skills that can be transferred to applications in other academic fields. Recognizing the important link between mathematics and technology, all math courses utilize and are taught in conjunction with the TI-84 graphing calculator.

**AP Capstone Program:** For students interested in pursuing advanced and interdisciplinary study related to math during their 10th, 11th, or 12th grade years, please see the AP Capstone Program information found on page 15.

### Algebra 1

Grades 9,10

2011 (X) MA Year

1 credit

2092 (A) MA Year

1 credit

**Prerequisite: Pre-Algebra**



This course is intended for students who are ready to begin the formal study of algebra. While delivering a rich Algebra 1 curriculum, the course also addresses the content on the Algebra 1 Keystone Exam. Students who successfully complete Algebra 1 should be able to:

- solve and graph linear equations and inequalities in one or two variables
- add, subtract, multiply, and divide signed numbers, polynomials, and rational expressions
- solve systems of linear equations and inequalities graphically and algebraically
- factor algebraic expressions involving common monomials, common binomials, difference of two squares, trinomials, and combinations of the types mentioned
- solve simple quadratic equations with rational roots by factoring
- add, subtract, multiply, divide, and simplify algebraic fractions and square root radicals
- solve fractional equations
- apply the techniques of algebra to solve application problems
- determine how a change in 1 variable relates to a change in a second variable
- analyze and/or use patterns and relations
- analyze and interpret data on a scatter plot and use data to make predictions
- apply probability theorems to practical situations
- write and solve non-linear equations using various methods
- use measures of dispersion to describe a set of data

**Please note that on page 29 of this Program of Studies, you will find possible Mathematics Course Sequences available to students. This page will help determine the order in which courses are taken.**

**Geometry**

Grades 9,10,11

<b>2080 (H) MA</b>	Year	1 credit
<b>2081 (X) MA</b>	Year	1 credit
<b>2082 (A) MA</b>	Year	1 credit

**Prerequisite: Algebra 1**

All of the geometrically significant topics and theorems typically found in a year-long geometry course will be presented during this course. The course is structured to also introduce algebra-based application in statistics, probability and trigonometry. The rigor and scope of the material covered will vary with the level of the course. Students who have successfully completed this course should be able to:

- apply geometric concepts to solve problems
- write, analyze, and complete geometric proofs
- use two-column proofs to establish relationships among triangles and parts of triangles
- identify corresponding parts in congruent polygons to solve problems
- apply similarity theorems to solve for unknown parts of polygons
- relate knowledge of parallel and perpendicular lines to solve practical problems
- combine algebraic and geometric skills to solve perimeter, area, and volume problems
- apply distance and midpoint formulas
- use coordinates to prove simple geometric theorems algebraically
- perform geometric transformations on the plane
- understand similarity in terms of similarity transformations
- apply basic trigonometric definitions to find angles and sides of right triangles
- apply Law of Sines and Cosines to find angles and side lengths of triangles
- solve problems involving inscribed and circumscribed polygons
- use properties of angles, arcs, chords, tangents, and secants to solve problems involving circles
- apply linear and quadratic models to various topics of this course
- apply combinations and permutations in discrete situations
- apply elementary probability theorems and postulates in discrete situations
- analyze sets of data by calculating measures of central tendency and measures of spread

**Algebra 2**

**2050 (H\*) MA (Pre-BC Calculus)**

Grades 9, 10 Year 1 credit

**2150 (H) MA (Pre-AB Calculus)**

Grades 9, 10,11 Year 1 credit

**2051 (X) MA** Grades 10, 11, 12 Year 1 credit

**2052 (A) MA** Grades 11, 12 Year 1 credit

**Prerequisite: Geometry**

All of the traditional topics will be addressed in these Algebra 2 courses. The rigor and scope of the material covered will vary with the level of the course. This course extends the concepts learned in Algebra 1 to include the complex number system and functional notation. Students who have successfully completed this course should be able to:

- graph, analyze, solve, and factor first and second-degree equations and inequalities in one or more variables
- simplify, evaluate, and perform the four basic operations on polynomials and rational expressions
- solve quadratic equations and related problems by factoring and by using the quadratic formula
- solve fractional equations in one and two variables and solve related problems
- simplify and perform the four basic operations on radicals
- solve radical equations
- apply knowledge of the conic sections to the solution of practical problems
- apply Cramer’s Rule to solve a system of linear equations
- apply knowledge of basic trigonometric functions to solve right triangle problems
- apply knowledge of basic trigonometric functions to prove identities and solve trigonometric equation

**Math Analysis**
**2100 (H\*) MA (Pre-BC Calculus)**

Grades 9, 10, 11 Year 1 credit

**2110 (H) MA (Pre-AB Calculus)**

Grades 9, 10, 11 Year 1 credit

**2111 (X) MA (Pre-Calculus)**

Grades 11, 12 Year 1 credit

**Prerequisite: Algebra 2**

These Math Analysis courses are designed to prepare students for high school or college Calculus. The rigor and scope of the material covered will vary with the level of the course. A functional approach is used throughout to provide an extensive treatment of topics from algebra and trigonometry. The topics include polynomial and rational functions, graphing techniques, exponential and logarithmic functions, sequences and series, limits, and all of the topics covered in a semester course in trigonometry. Students who have completed a course in Trigonometry / Algebra 3 or its equivalent are not eligible to earn additional math credits through Math Analysis. Students who have successfully completed this course should be able to:

- demonstrate a working knowledge of elementary functions including linear, quadratic, trigonometric, exponential, logarithmic, as well as other basic functions
- demonstrate an understanding of functional notation, functional operations including composition and inverse
- graph a wide variety of functions including exponential, logarithmic, and trigonometric functions
- apply the concepts of transformation to predict changes in given graphs that result from these applications
- apply the Fundamental Theorem of Algebra, the Rational Root Theorem, and synthetic division to solve higher-order polynomial equations and inequalities
- solve a wide variety of problems drawn from related discipline

**Trigonometry and Algebra 3**

Grades 11\*, 12 Year 1 credit

\*with administrative approval

**2141 (X) MA**
**Prerequisite: Algebra 2**

This course emphasizes the inter-relationships of algebraic and trigonometric functions. A functional approach is used throughout to provide extensive treatment of topics from algebra and trigonometry. Topics in algebra are extended to make connections and identify similarities to trigonometry. Topics include, but are not limited to: solving quadratic and linear equations, graphing quadratic and linear functions, graphing trigonometric functions, solving trigonometric equations, sketching polynomial functions, and application problems. Students who have completed a course in Math Analysis or its equivalent are not eligible to earn additional math credits through Trigonometry and Algebra 3. This course is intended to be an alternative to Math Analysis for students who do not anticipate taking Calculus during or after high school. Students who have successfully completed this course should be able to:

- define the trigonometric functions and demonstrate relationships among them
- demonstrate techniques of graph sketching of functions
- solve equations involving the trigonometric functions and their inverses
- apply algebraic concepts to the solution of equations and application problems

## Mathematics

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### Calculus

Grade 12                      Year                                      1 credit  
**2220 (H)    2221 (X)    MA**  
**Prerequisite: Math Analysis**

This high school level calculus course is designed to provide the student with the background to use calculus in sciences, social sciences, and business applications. It also provides an excellent foundation for further work in calculus. The instructional approach emphasizes both applications and the theoretical basis of calculus. Students who successfully complete this course should be able to:

- determine the derivative of polynomial, exponential, logarithmic, and trigonometric functions
- apply problem-solving techniques to the solution of definite and indefinite integrals
- solve simple, ordinary differential equations
- apply the techniques of differentiation and integration to curve sketching, extrema problems, finding volumes of revolution and to applications in statistics, economics, business, physics, and biology

### AP Calculus AB

Grades 10, 11, 12                      Year                                      1 credit  
**2210 (AP)    MA**  
**Prerequisite: Math Analysis**

This is a college level course that covers material equal to 1 semester of college work. Students are required to have and use a graphing calculator, considered an integral part of the course. Students who successfully complete this course should be able to:

- work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal
- determine limits of expressions and apply L'Hopital's Rule to calculate the limit of indeterminate forms
- understand the meaning of a derivative in terms of a rate of change and local linear approximation
- define the derivative of a function and find the derivative and integral of functions including: polynomial, rational, trigonometric, inverse trigonometric, logarithmic, and exponential functions
- apply differentiation techniques and concepts to sketch functions, solve related rate problems, optimization problems, and apply the Mean Value Theorem
- understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change
- apply integration techniques to area between curves, volumes, and average value of function
- use algebraic substitutions appropriate for integration
- solve differential equations by separating the variables and observe solutions by using slope fields

### AP Calculus BC

Grades 10, 11, 12                      Year                                      1 credit  
**2200 (AP)    MA**  
**Prerequisite: Math Analysis**

This is a college level course that covers material equal to 2 semesters of college work. Although this is a rigorous course, and all definitions and theorems are precisely stated, many of the proofs are deferred to later courses. Students are required to have and use a graphing calculator which is considered an integral part of the course. Students who successfully complete this course will also be proficient in the topics of AP Calculus AB. In addition, all students should be able to:

- apply integration techniques to length of curves
- use trigonometric substitutions of basic identities, algebraic and trigonometric substitution, partial fractions, integration by parts, and improper integration techniques as appropriate for integration
- solve differential equations (including logistic differential equations) by separating the variables and observing solutions by using slope fields and Euler's Method
- differentiate and integrate parametrically defined relations and vector relations and apply these to applications of the derivative and the integral
- differentiate and integrate polar relations and apply these to applications of the derivative and the integral
- show the convergence and divergence of infinite sequences and series using a variety of tests
- use Taylor series to represent transcendental functions, find radius of convergence, and estimate remainder terms

**Statistics**

Grades 9, 10, 11, 12 Year 1 credit  
**2230 (H) 2231 (X) MA, EL**

This course is designed to give students an introduction to the concepts of statistics. Descriptive and inferential statistics involving normal distributions are examined in detail. Analysis of variance, regression and correlation are introduced and examined. The course stresses the practical application of statistics to various disciplines and scenarios. Students who have successfully completed this course should be able to:

- calculate mean, median, mode, and variance of a set of data
- apply sampling techniques to estimate population statistics including the mean and standard deviation
- construct confidence intervals and test hypotheses
- analyze and present data represented both numerically and graphically for the study of patterns
- make statistical inferences using appropriate modeling techniques
- apply the science of statistical analysis to interpret data for informed decision-making in the social and scientific realms
- understand the value and application of technology in statistical analysis through calculators and software
- anticipate patterns by producing models using probability and simulation

**AP Statistics**

Grades 9, 10, 11, 12 Year 1 credit  
**2240 (AP) MA, EL**  
**Prerequisite: Algebra 2**

This is a college level course that covers material equal to 1 semester of college work. This course is activity driven, with applications in gaming scenarios, population growth, and sports. Students who have successfully completed this course should be able to:

- perform exploratory analysis of data, making use of graphical and numerical techniques to study patterns
- apply sampling techniques to estimate population statistics
- design and carry out experiments and observational studies as well as assess the validity of those designed by others
- utilize statistical software for analyzing univariate and bivariate data, as well as performing statistical inference for sample data
- anticipate patterns by producing models using probability and simulation
- make statistical inferences using appropriate models

**Multi-Variable Calculus with Advanced Topics**

Grades 11, 12 Year 1 credit  
**2300 (H\*) MA**  
**Prerequisite: AP Calculus BC**

This course is a continuation of the calculus sequence and is intended for students who have successfully completed AP Calculus BC. Students who successfully complete this course will earn one Conestoga math credit and should be prepared for advanced college calculus or differential equations. The first part of the course covers vectors and multi-variable calculus including functions of several variables, multiple integration and vector analysis in 2 and 3-space. Advanced applications will also be considered and may include selected topics from number theory; matrix algebra; modeling applications used in business, science, and economics; or differential equations.

It is important to note that courses similar to this one may be offered at colleges or universities; however, it should be clearly understood that this course offers only Conestoga math credit. Please note that students and their families, and not the T/E School District, are responsible for any student tuition or online charges for any student-elected college or university courses.

**Pre-Algebra\***

Grades 9, 10, 11, 12 Year 1 credit  
 \*requires administrative approval  
**2002 (A) MA**

This course is intended to prepare students for Algebra 1. Number properties, operations and applications are emphasized. The role of a variable is explored and used in multiple contexts. Properties of integers, linear equations in one variable, polynomial operations, selected geometric topics, and some algebraic-level concepts are developed. Students who successfully complete this course should be able to:

- solve linear equations containing one variable
- graph linear equations on the coordinate plane
- apply knowledge of the real number system and numerical operations to solve practical problems
- apply the techniques of algebra to solve simple and multi-step linear equations
- complete number sentences and apply logical problem-solving strategies
- apply geometric concepts to the solution of practical problems involving perimeter, area, volume, and special right triangles
- communicate mathematical ideas verbally and in writing
- demonstrate an introductory level understanding of systems of equations

*Please note that computer course listings are on page 30 and 31.*

## Mathematics Course Sequences

### CONESTOGA MATHEMATICS TRADITIONAL MATH SEQUENCE AND ELECTIVES

Students begin 9<sup>th</sup> grade with whichever course follows their completed 8<sup>th</sup> grade math course. Each CHS math course is offered at multiple levels to provide options for associated rigor. Students seeking additional challenge or advancement should consult their math teacher for options.



*\*With administrative approval, students who have not met the prerequisite for Algebra I may be enrolled in course 2002 Pre-Algebra.*

*\*\*Trigonometry/Algebra 3 is available as an alternative course to Math Analysis for students who do not anticipate taking Calculus during or after high school.*

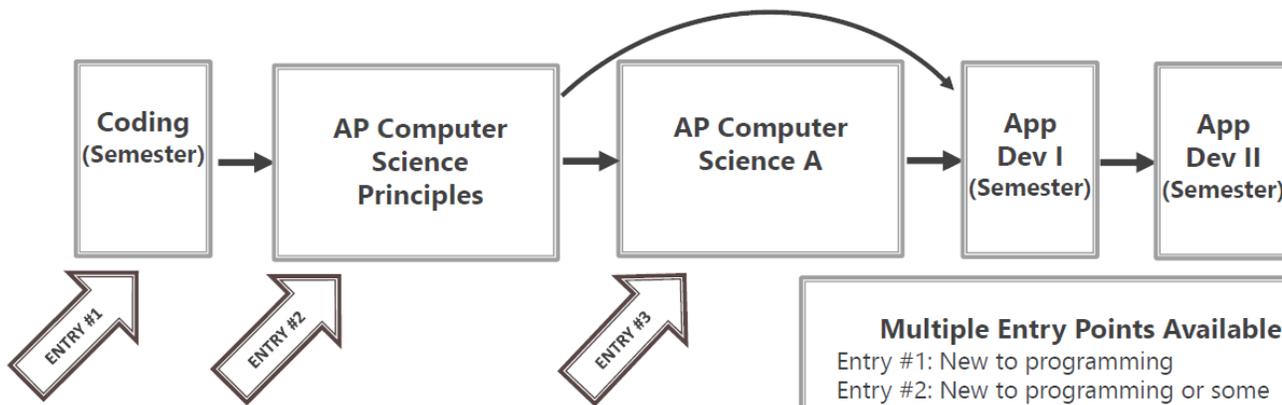
*\*\*\*Calculus is considered a university-level course in the traditional sequence of math courses. Students who are above-grade-level in math may preview this content during high school, but this is not an expectation for high school students.*

#### Math Electives

CHS students may choose to supplement the traditional sequence with a variety of exciting and rigorous math electives, including multiple offerings in: Computer Science, Statistics, and Accounting.

### CONESTOGA COMPUTER SCIENCE ELECTIVES SUGGESTED COURSE SEQUENCE

Several Computer Science electives are offered to accommodate a range of student goals, prior experiences in programming, and available space in student schedules. The following course sequence is suggested as a guide for considering entry points along the sequence and developing a multi-year plan of study for interested students.



#### Multiple Entry Points Available

Entry #1: New to programming  
 Entry #2: New to programming or some experience (summer camp, etc.)  
 Entry #3: Experience programming with an object-oriented language (e.g. Java)

## COMPUTER COURSES

### Coding

Grades 9, 10, 11, 12 Semester .5 credit  
**2549 MA, BT, EL**

In this course, students will be introduced to computer coding and its various applications. For most tasks, we will use the programming language Python. Students who successfully complete this course should be able to produce:

- a piece of computer-generated music
- a piece of computer-generated visual art
- code for an electronic circuit connected to an Arduino
- a 2D video game

**\*This course does not currently meet NCAA eligibility requirements for math.**

### AP Computer Science Principles

Grades 9, 10, 11, 12 Year 1 credit  
**2450 (AP) MA, BT, EL**  
**Prerequisite: Algebra 1**

With a unique focus on creative problem solving and real-world applications, the AP Computer Science Principles (AP CSP) course introduces students to the fundamentals of computing and the creative aspects of programming using Python. The course is designed to be equivalent to a first semester introductory college course in computing. Students will develop computational thinking vital for success across all disciplines, such as working with large data sets to analyze, visualize and draw conclusions from trends. Students will be encouraged to think creatively when developing computational artifacts and while using computer software and other technologies to explore questions that interest them. Additionally, they will develop effective communication and collaboration skills while problem solving. Discussing and writing about the importance of these problems and the impacts on their community, society and world will be integral to the course. Students will study the following big ideas:

- Creative Development - Work collaboratively to design and write programs
- Data - use computing tools to process information in order to gain new insights
- Algorithms and Programming - Write and implement algorithms in a program
- Computer Systems and Networks - Understand the form and function of the internet and other systems
- Impact of Computing - Explore the effects, legal impacts and ethical issues surrounding innovations

**\*This course does not currently meet NCAA eligibility requirements for math.**

### AP Computer Science A

Grades 9, 10, 11, 12 Year 1 credit  
**2400 (AP) MA, BT, EL**  
**Prerequisite: Algebra 2**

This is a college-level course taught in Java designed to provide college credit for those students successfully completing the Advanced Placement Examination. Students who successfully complete this course should be able to:

- design and implement computer-based solutions to problems in several application areas
- learn well-known algorithms and data structures
- develop and select appropriate algorithms and data structures to solve problems
- code fluently in a well-structured fashion
- read and understand a large program and a description of the design and development process leading to such a program
- recognize the ethical and social implications of computer use

**\*This course does not currently meet NCAA eligibility requirements for math.**

### App Development 1

Grades 11, 12                      1st Semester                      .5 credit

**2559                      MA, BT, EL**

**Prerequisite: AP Computer Science A or AP Computer Science Principles**

In this course, students will learn about the app development process. Students will research, design and implement a desktop, Android, IOS, or web application. Students who successfully complete this course should be able to:

- research a target audience for an application
- produce a fully functional Android, IOS or web application
- use an iterative development process to test and refine the application

**\*This course does not currently meet NCAA eligibility requirements for math.**

### App Development 2

Grades 11, 12                      2nd Semester                      .5 credit

**2569                      MA, BT, EL**

**Prerequisite: App Development 1**

In this course, students will learn about the app development process using C# and the .NET framework. Students will build on the knowledge from App Development 1 to design and develop web and gaming applications, and study the architecture differences between mobile, web, and gaming applications. Students will understand the different graphical styles of gaming applications, including 2-dimensional, 3-dimensional, top-down, side-view, 1st person, and 3rd person. Students will build various UI and UX for some simple games and link their applications to a backend database for persistent data storage. Students who complete this course should be able to:

- design and implement a frontend and backend for a web application
- understand the different styles of gaming applications
- design and implement their own gaming application

**\*This course does not currently meet NCAA eligibility requirements for math.**

## Additional Math Courses Accounting

The following accounting courses are offered by the Business/Technology Department. Accounting may be used to fulfill only one of the three mathematics credits required for graduation.

**Accounting 1 and Accounting 2.** (See page 45 for full course descriptions.)

## Additional Computer Courses

Computer courses are also offered by the Business/Technology and Visual and Performing Arts Departments. Please refer to departmental listings for course descriptions of the following courses:

- Graphic Design and Animation
- Mechanical and Electrical Engineering
- Structural and Environmental Engineering



## Science

Dr. Scott Best, Department Chairperson

In an increasingly complex global community, the Conestoga Science Department recognizes the need to produce active, informed citizens who understand scientific issues that impact our everyday existence. Communities of learners who can access and analyze scientific and technological information will be able to make informed decisions about our future.

Science courses are activity-based, lab oriented classes that prepare students for pre-college testing (e.g., SAT subject tests, Advanced Placement (AP) tests), further study in college, and citizenship in a technical society. Emphasis is placed upon acquisition of concepts from multiple sources (electronic and print media, experimentation, real-world experience), interconnection of ideas between the sciences and other subject areas, and thinking skills (such as problem solving). A rigorous and demanding sequence of science courses will ensure that students are prepared for further school and life.

The goal of the Conestoga Science Department is to make sure that all students are exposed to the major disciplines of science before graduating. The sequence of classes available to students accomplishes that goal over the four years of high school. Students who are highly motivated and wish to continue their study of science beyond Conestoga may accelerate their program or take two science courses at once to take advantage of electives offered within the department.

In order to fulfill graduation requirements, students must successfully complete three credits of science, including 1 credit in Biology.

**AP Capstone Program:** For students interested in pursuing advanced and interdisciplinary study related to Science during their 10th, 11th, or 12th grade years, please see the AP Capstone Program information found on page 15.

## Biology

The goal of Biology courses is to establish a core of biological concepts and information that can be of value to all students. The course content is designed to prepare students for the Keystone Exam in Biology.

### AP Biology



Grade 9	Year			1 credit
<b>3100 (AP)</b>	<b>3110 (H)</b>	<b>3111 (X)</b>	<b>3112 (A)</b>	<b>BI</b>

Biology at the AP level prepares students for success on the Advanced Placement (AP) Biology examination. The pace of the AP course requires strong motivation along with strong work and study habits. Students enrolled in the AP level will read a college text which will examine more content and address more detail than that covered in the (H) level course.

Honors Biology (H) includes all of the content of the accelerated level with more breadth and depth. In addition, the course is supplemented with readings in technical writing of laboratory projects and additional laboratory work.

The Accelerated (X) level features the study of the genetic continuity of life, cell structure and function, cell growth and reproduction, population characteristics, bioenergetics, interaction of organisms and their environment, and the chemistry of life. The class is a laboratory based course where students perform a variety of laboratory experiments.

At the academic level (A), Biology is a laboratory-centered, college preparatory course in the life sciences and is paced to emphasize a thorough understanding of basic biological concepts. This course includes the study of plants, animals, genetics, cell composition, human physiology, microbiology, and ecology.

### AP Environmental Science

Grades 10, 11, 12	Year			1 credit
<b>3130 (AP)</b>	<b>3140 (H)</b>	<b>3141 (X)</b>	<b>3142(A)</b>	<b>SC, EL</b>

Environmental Science is a course designed for students who have an interest in biology/environmental themes. The class is an extension of environmental/ecology topics that were covered in the student's first year Biology class. This is a multi-disciplinary science course that applies scientific concepts to real world problems and dilemmas. The course focuses on both background and laboratory studies of the environment. Course topics include traditional and experimental ecology, types of pollution, energy sources, oceanography, global trends, economics, ethics, and sustainability. **Students who were previously enrolled in 3122 Topics in Life Sciences cannot enroll in this course for credit.**

## Chemistry

In Chemistry a logical sequence of chemical principles is presented via an activity-centered approach. An important part of the Chemistry Program is its relevance for both science and non-science oriented students. Thinking skills and problem solving techniques, along with the increased use of technology in science courses are valuable for all students, regardless of their career goals. Because Chemistry 1 is offered at various instructional levels, students are encouraged to select the one most appropriate for them, based on the current science teacher's recommendation.

### AP Chemistry [1] Chemistry 1

Grades 10, 11, 12 Year 1 credit  
**3200 (AP) 3210 (H) 3211 (X) 3212 (A) SC, EL**

Chemistry 1 is a classroom/laboratory course which covers basic first-year chemistry topics at all levels: qualitative and quantitative analysis, safe conduct in a laboratory setting, stoichiometry, bonding and structure, representation of chemical changes, basic atomic theory, thermochemistry, kinetics, acids and bases, basic problem solving, and the relationships between science, technology and society. Laboratory experiences and technology are integrated within the course structure. Written laboratory reports are required for all levels.

AP Chemistry 1 is the first course of a two year sequence that prepares students for the AP Chemistry test. It is a rigorous, mathematics-based course utilizing an Advanced Placement approved college textbook. Success in this level of chemistry requires a high level of motivation and interest in chemistry, excellent study skills, sophisticated problem solving skills, and a commitment to working outside of the classroom.

Chemistry at the Honors (H) level is a mathematics-based treatment of chemistry for the highly motivated student and is taught using a college text. This rigorous course differs from the AP level in the depth of mathematical treatment and coverage of one or two fewer topics per semester. Success in this course will depend on high motivation, good work and study skills, and understanding of basic mathematical concepts.

Chemistry at the Accelerated (X) level is a college preparatory class for students who wish to obtain a thorough introduction to the major topics of a first year chemistry course. It is taught with a high school text and is less mathematically oriented than either the Honors or AP course. Students who take this course will be well prepared for an entry-level college science class. Laboratory activities and written lab reports are an integral part of this course.

Academic (A) Chemistry is a college preparatory course for students. It is taught from a high school text and focuses on laboratory based activities that relate to chemistry in everyday applications.

### AP Chemistry [2]

Grades 11, 12 Year 1 credit  
**3220 (AP) SC, EL**

#### Prerequisite: Chemistry 1

Enrollment in AP Chemistry 2 allows students to continue the study of certain concepts from Chemistry 1 in greater depth. Considerable emphasis is placed on individual laboratory activities. This course provides a more complete background for those students interested in a science career. Students are encouraged to take the AP Chemistry Examination at the conclusion of this course. Upon successful completion of this course, students will be able to:

- demonstrate proficiency in the chemistry laboratory, especially involving titration, qualitative, gravimetric, and instrumental analysis techniques
- understand and solve more sophisticated mathematical calculations related to the basic concepts in chemistry
- work independently in the chemistry laboratory, particularly with unknown determinations
- appreciate the subtle relationship which exists between such concepts as thermodynamics, equilibrium, acid-base, and oxidation-reduction chemistry

## Physics

Physics is an important, relevant, and enjoyable discipline which includes the topics of mechanics, electricity and magnetism, and optics. In the various levels of this science course, students learn by doing, experiencing practical applications as well as theoretical aspects of the discipline. Students gain an understanding of how Physics applies to everyday life while preparing for the challenges of science at the college level.

Upon successful completion of Physics, the student should be able to:

- read, understand, and interpret physical information verbally, mathematically, and graphically
- describe and explain the sequence of steps in the analysis of a particular physical phenomenon or problem
- use mathematical reasoning to solve a physical problem
- perform experiments, interpret results of observations, and assess experimental uncertainties
- think critically and deductively as a member of a team
- analyze data and recognize relationships between variables in data analysis
- demonstrate proper use of laboratory equipment including a wide variety of measuring devices
- demonstrate an understanding of basic physical principles and their applications in modern society

### AP Physics C: Mechanics Physics

Grades 11, 12 Year 1 credit  
**3300 (AP) 3310 (H) 3311 (X) 3312 (A) SC, EL**

The calculus-based Advanced Placement (AP) Physics course is approximately equivalent to a one-year, college-level course in general physics for scientists and engineers. Topics include: motion, forces, vectors, momentum, and energy. This course is designed to prepare students for the calculus-based AP Physics C: Mechanics test administered annually in May.

Honors (H) Physics is a non-calculus based college level laboratory course in mechanics. Typically, Honors Physics is similar to AP physics with less emphasis on the application of calculus. Group problem solving and hands-on activities are incorporated. Honors Physics is a mathematics intensive course.

Accelerated (X) Physics is a college preparatory class for students who wish to obtain a thorough introduction to several major topics typically covered in a first-year college physics course. This course is taught using an algebra-based text and is less mathematically oriented than either the Honors or AP courses. The topics of motion, forces, vectors, and momentum are included.

Academic (A) Physics is a college preparatory course for students. The class uses a high school text and focuses on laboratory-based activities that relate physics to everyday applications.

### AP Physics C: Electricity and Magnetism

Grade 12 Year 1 credit  
**3320 (AP) SC, EL**  
**Prerequisite: AP Physics C: Mechanics**

This calculus-based course is a continuation of AP Physics C: Mechanics. Topics include: electrostatics, electricity and circuits, field theory and electric fields, magnetism and magnetic fields, electromagnetic waves and optics. Recommended for students pursuing college majors in the physical sciences, engineering, mathematics, or computer science, the course is designed to prepare students for Part 2 (Electricity and Magnetism) of the calculus-based AP examination administered annually in May.

## Science Electives

### Microbiology

Grades 10, 11, 12 Semester .5 credit  
**3160 (H) 3161 (X) SC, EL**  
**Prerequisite: Biology**

Microbiology is a laboratory-oriented course in which students learn about the largest group of living organisms on Earth. Students gain an appreciation for the great diversity of microorganisms through an overview of various organisms in Kingdoms Fungi and Protista. Laboratory activities will include: the safe handling of microorganisms, soil microbiology, the genetics of microorganisms, and industrial uses of microorganisms.

### Anatomy and Physiology

Grades 10, 11, 12 Year 1 credit  
**3190 (H) 3191 (X) SC, EL**  
**Prerequisite: Biology**

This laboratory-based course is intended for students who are interested in pursuing a science/health-related career. The class will provide an in-depth study of both anatomy – the parts of the human body, and physiology – the function of the organs within the body. Upon completion, students should be able to demonstrate a more complete understanding of organ systems and how they contribute to normal body functions. NOTE: This course will include labs that examine computer models as well as the dissection of preserved mammalian specimens.

**Forensic Science**

Grades 10, 11, 12 Semester .5 credit

**3050 (H) 3051 (X) SC, EL****Prerequisite: Biology**

Forensic Science is an introduction to the analysis of crime scenes that explores the collecting and analyzing of physical evidence. This course is designed to integrate the core scientific disciplines (as outlined in the Pennsylvania Standards for grades 9-12) while giving students both theory and hands-on experience with the skills and knowledge required of a forensic crime scene investigator. This multidisciplinary approach will highlight topics in pathology, DNA, anatomy, chemistry, anthropology, toxicology, entomology, and investigative techniques with supplemental subject matter through case studies, earth science, mathematics, medicine, technology and psychology. In addition, some of the ethical, legal, and social concerns surrounding forensics will be discussed. Process skills will include: comparative analysis, critical thinking, deductive reasoning, observation, organization, problem solving, research, communication, and technical reading. **Project-based learning through laboratory investigation and discussions/class lecture will serve as the main method of content delivery.** Individually and/or in groups, students will perform lab work and apply inference and deductive reasoning to the investigation and potential solving of crimes.

**Fundamentals of Organic Chemistry**

Grades 11, 12 Semester .5 credit

**3230 (H) 3231 (X) SC, EL****Prerequisite: Chemistry 1**

Fundamentals of Organic Chemistry is a research-focused, laboratory-based investigation of an important and practical domain of Chemistry. As a laboratory-based course, students will develop proficiency with a broad array of equipment, instrumentation, and analytical techniques including digital data collection technologies. Topics such as organic nomenclature, functional groups, synthesis reactions, stereochemistry/chirality, spectroscopy, and biochemistry will be investigated. This course will also reinforce the concepts learned in Chemistry 1 such as gas laws, intermolecular forces, and atomic structure. Although the concepts and techniques examined in this course are typically taught in college-level Pre-Med and STEM major tracks, this course will be a primer for future success in these fields.

**Genetics**

Grades 10, 11, 12 Semester .5 credit

**3180 (H) 3181 (X) SC, EL****Prerequisite: Biology**

Genetics is a laboratory based course designed for students who have an interest in furthering their knowledge in the field of genetics and inheritance. This course focuses on the role of chromosomes, genes, and DNA in the inheritance of human traits and disorders. Topics will include: detailed study of DNA structure, function, and replication, cell reproduction, Mendelian genetics, human inheritance, and genetic engineering. Current genetic issues and technologies will also be investigated.

**Astronomy**

Grades 10, 11, 12 Semester .5 credit

**3420 (H) 3421 (X) SC, EL****Prerequisite: Biology**

Astronomy is a laboratory based course designed for students who have an interest in furthering their knowledge of astronomy. The course focuses on the history of astronomy, the solar system, the sun and life cycles of stars, galaxies and cosmology. Laboratory activities will include: Kepler's Laws, planetary motion, Doppler Effect, and optics. This course is excellent preparation for any college course in introductory astronomy.

**Co-Curricular Science Electives****Science Olympiad\*\***

Grades 9, 10, 11, 12 .25 or .5 credit

**3405 Semester 1 (.25 credit)****3415 Semester 2 (.25 credit)****3407 Semester 1 (.5 credit)****3417 Semester 2 (.5 credit)**

This class is designed for students who are interested in enhancing their knowledge base and understanding through practical applications of science. The course consists of technology, engineering, and theoretical aspects of science. The course activities include but are not limited to the design and construction of devices such as trebuchets, robots, balsa wood structures, and cars. Extended experiences pertaining to laboratory activities such as forensic identification, experimental design, and chemistry/physics labs will also be emphasized. Finally, students will have the opportunities to examine the finer domains of science that are not currently being offered in the science curriculum such as geology, fossils, and health sciences. Students may register for this course in one or both semesters. This class will support participation in the interscholastic Science Olympiad program.

# WORLD

## World Languages

Patrick Cupo, Department Chairperson

Modern and classical language courses are designed to meet the needs, interests, and abilities of all students. The goals of the world language course offerings are to enable the student to use the chosen language for communication and to develop insights into the literature and culture of the various countries concerned. Languages offered include: French, German, Italian, Latin and Spanish.

As a requirement for graduation, students must demonstrate proficiency in a second language. Students entering the high school having completed two years of a language must complete at least a third year of that same language or complete two years of another language.

Whenever necessary, courses and levels may be blended with differentiated curriculum and instruction, which may include alternating topics from year to year.

Teachers, in all years and at all levels, conduct language classes in the target language. Students are expected to interact in class in the target language.

Language study may:

- increase global awareness through study and appreciation of other cultures
- strengthen grammar in one's own language
- prepare students for a growing number of careers and give them an advantage when applying for employment
- enhance the pleasure of travel and social interaction
- enable the student to meet college entrance requirements

The Department recommends the study of a minimum of four years of the same language at the high school. This recommendation is strongly supported by the admission boards of major colleges and universities. In addition, the student is encouraged to study a second world language whenever possible.

All world language students enrolled in levels 2, 4 and 6 will participate in the Board-approved Avant STAMP (Standards-based Measurement of Proficiency) or the Language Testing International AAPPL (Assessment of Performance toward Proficiency in Languages) assessment in reading, writing, listening, and speaking. At the end of the assessment, each student will receive a Benchmark score that is aligned with the ACTFL (American Council on the Teaching of Foreign Languages) levels of proficiency.

**AP Capstone Program:** For students interested in pursuing advanced and interdisciplinary study related to World Languages during their 10th, 11th, or 12th grade years, please see the AP Capstone Program information found on page 15.

## FRENCH

### French 1

Grades 9, 10, 11, 12 Year 1 credit  
**4010 (H) 4011 (X) 4012 (A) WL, EL**

French 1 is a course in which students are introduced to the four basic language skills of listening, speaking, reading and writing with a focus on interpersonal and presentational communication. Students are exposed to Francophone culture through thematic units which include greetings, leisure activities, school, food, family, professions, clothing and weather. There is an emphasis on cultural comparisons between Francophone countries and the United States. Authentic resources are used to enhance language learning through video, advertisements, articles, short stories, music and teacher-produced materials.

### French 2

Grades 9, 10, 11, 12 Year 1 credit  
**4020 (H) 4021 (X) 4022 (A) WL, EL**

**Prerequisite: French 1**

The second year of French continues to refine and expand the skills acquired in French 1 with the goal of authentic language use. Vocabulary expansion and exposure to francophone culture includes thematic units on holidays/vacationing, art, travel, food, health, environment and daily routine with an emphasis on Parisian life. Students will progress through exposure to authentic resources such as videos, advertisements, articles, short stories, music and teacher-produced materials.

### French 3

Grades 9, 10, 11, 12 Year 1 credit  
**4030 (H) 4031 (X) 4032 (A) WL, EL**  
**Prerequisite: French 2**

Students will continue to refine the four communicative skills learned in French 1 and 2. Thematic vocabulary and advanced grammar will be introduced, with an emphasis on the spoken language and practical interactions such as discussing school life, ordering in a restaurant, traveling, and expressing likes and dislikes. Students will also deepen their understanding of the French language through exploration of Francophone regions and cultures, authentic literature, cultural films, Francophone history, music, traveling and discussion of social issues. The Honors level will focus on producing advanced grammatical structures and comprehension of authentic literature. Upon completion of this course students will be able to:

- respond appropriately to questions
- read directly in the language
- write paragraphs, compositions, and journals demonstrating an understanding of grammatical principles

Students who successfully complete this course have the option of enrolling in AP French the following year.

### French 4

Grades 10, 11, 12 Year 1 credit  
**4040 (H) 4041 (X) WL, EL**  
**Prerequisite: French 3**

This course refines the four language skills learned in the first three years. The focus of the course is to provide students with the skills they need to use language for communication. The students continue their study of French through the introduction of new material, through reinforcement, and evaluation and review, all of which are designed to improve student proficiency across the three modes of communication. There is an emphasis on authentic resources whether in audio or written format such as *La Belle et la Bête* and *La Parure*. The French 4 course will continue to delve deeper into the nuances of the language, instill students' awareness of culture, make historical connections with the world, offer and analyze selections from various literary periods and movements, and encourage students to use their critical thinking skills to make inferences and express their thoughts about the world while using the French language.

### French 5

Grades 11, 12 Year 1 credit  
**4090 (H) 4091 (X) WL, EL**  
**Prerequisite: French 4**

This course is designed for students who desire to speak the French language more naturally and effectively. Lessons are structured through cooperative learning to provide students practice in conversing about popular current event topics. In discussing contemporary issues, students gain a better understanding of French-speaking people, culture, and language. The themes studied include: free time activities, school life, health, technology, cooking, travel and the year wraps up with the reading and study of the classic, *le Petit Prince*. Authentic materials such as newscasts, podcasts, advertisements, infographics, articles, short stories, poems, internet activities and teacher produced materials replace a formal textbook. Grammar such as the past, conditional, pronouns and the subjunctive will be reviewed and infused in context in order to increase speaking ability. Students should be able to express feelings and opinions, agree and disagree and carry out a conversation about a wide variety of topics while increasing their vocabulary in each unit.

### AP French Language 4 - 5

Grades 10, 11, 12 Year 1 credit  
**4070 - 4 (AP) 4080 - 5 (AP) WL, EL**  
**Prerequisite: French 3 or French 4**

**This nonsequential, two-year course** is intended for students who wish to develop their proficiency in modern spoken French. Students who choose this course should have attained reasonable proficiency in reading, listening, speaking, and writing in their previous study of French. **While students may take the AP exam after taking this course for one year, they will be best prepared after two years.** The student will be able to:

- speak in French at a conversational pace
- read and discuss newspaper and magazine articles as well as contemporary French novels
- write insightful essays on current issues

### French 6

Grade 12 Year 1 credit  
**4000 (H) 4001 (X) WL, EL**  
**Pre-requisite: French 5 or AP French Language 5**

This course offers a culminating experience for students studying the French language. Students will learn to utilize advanced elements of the language by further developing fluency through more complex speaking, reading, writing and listening activities. Through a variety of modalities, e.g., texts, authentic literature, film, pod-casts and music, students will gain a deeper appreciation for French communication and culture. Additionally, students will be exposed to contemporary trends in different French-speaking countries to foster understanding of our growing global society.

## World Languages

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### GERMAN

#### German 1

Grades 9, 10, 11, 12 Year 1 credit  
**4110 (H) 4111 (X) WL, EL**

Through the fusion of authentic materials from contemporary German media sources and emerging technologies such as cloud-based voice mail and online videos, students will immerse themselves in the German language. Students who take this course during their 9th grade year will be able to reach the AP level by their senior year. Listening, speaking, writing, and reading skills, as well as grammar proficiency, will be developed within an ongoing cultural context. Unit themes will include, but are not limited to, personal identification, education, the household, community and physical environment, free time activities, mealtime, clothing/shopping, travel and careers.

#### German 2

Grades 10, 11, 12 Year 1 credit  
**4120 (H) 4121 (X) WL, EL**  
**Prerequisite: German 1**

German 2 continues to refine and expand the listening, speaking, reading, and writing skills with the goal of authentic language use. The student will be able to:

- respond in written and/or spoken German
- read familiar written German aloud in a manner acceptable to a fluent speaker
- demonstrate increased command of vocabulary and elements of grammar
- briefly express ideas in German on a given topic, either orally or in writing
- read dialogues, essays, and compositions in German without translating word for word

#### German 3

Grades 11, 12 Year 1 credit  
**4130 (H) 4131 (X) WL, EL**  
**Prerequisite: German 2**

German 3 is an active review of German pronunciation and fundamental elements of grammar as well as oral, reading, and writing skills. Emphasis is on basic conversation and discussion skills and on improving the comprehension of German spoken at normal conversational speeds. Readings include transcribed discussions and short stories written for German young people by modern authors. Students who successfully complete this course may have the opportunity of enrolling in AP German the following year.

#### German 4

Grades 11, 12 Year 1 credit  
**4140 (H) 4141 (X) WL, EL**  
**Prerequisite: German 3**

German 4 emphasizes speaking and understanding German through a variety of texts including essays, short stories, poetry, and modern media. The study of grammar in context and a general grammar review refine the students' skills. Discussion in German of such current topics as social life, customs, and the environment is a major aspect of the course.

#### AP German Language 4

Grades 11, 12 Year 1 credit  
**4160 (AP) WL, EL**  
**Prerequisite: German 3**

This course is intended for students who wish to develop their proficiency in modern spoken German without the specific emphasis on literary analysis. Students who choose this course should have attained reasonable proficiency in reading, listening, speaking, and writing in their previous study of German. The student will be able to:

- speak in German at a conversational pace
- read and discuss newspaper and magazine articles as well as German short stories and novels
- write insightful essays on current issues

### ITALIAN

#### Italian 1

Grades 9, 10, 11, 12 Year 1 credit  
**4510 (H) 4511 (X) WL, EL**

In Italian 1, students will be introduced to the Italian Language through the exploration of popular songs, works of art, culture and videos of native Italian speakers. Students will begin building their ability to speak and develop skills for navigating real-world situations. Students will read authentic materials and practice attentive reading strategies: using cognates and context to decipher meaning. Thematic units include: personal description, daily life, activities, family, food and fashion. In addition, there are opportunities for students to advance their knowledge beyond the scope of the course and prepare for advanced Italian.

**LATIN**
**Italian 2**

Grades 10, 11, 12      Year      1 credit  
**4520 (H)    4521 (X)    WL, EL**  
**Prerequisite: Italian 1**

Students in Italian 2 will further develop communication skills through the exploration of authentic Italian culture. Thematic units include: talking about the past, holidays and festivals, school and youth culture, health and wellness, house and home, and the cities of Italy. Italian cultural traditions are compared with those of the United States. In addition, there are opportunities for students to advance their knowledge beyond the scope of the course and prepare for advanced Italian.

**Italian 3**

Grades 11, 12      Year      1 credit  
**4530 (H)    4531 (X)    WL, EL**  
**Prerequisite: Italian 2**

Development of oral proficiency continues in Italian 3. The course emphasizes speaking and understanding through a variety of texts, short stories, music and movies. Through carefully selected classic Italian movies, students will acquire an authentic understanding of Italian culture, language, dialects and history. Italian 3 focuses on travel vocabulary, the geography of Italy, and various aspects of the Italian culture. Students will learn to demonstrate their understanding of grammatical principles to write paragraphs and short stories. Students will interact in real-life language situations and learn useful vocabulary. Students who successfully complete this course have the opportunity of enrolling in AP Italian the following year.

**AP Italian 4**
**Italian 4**

Grades 12      Year      1 credit  
**4570 (AP)    4540 (H)    4541 (X)    WL, EL**  
**Prerequisite: Italian 3**

This course is designed for both advanced placement candidates and students interested in the advanced study of Italian. Through discussions of cultural readings, analysis of short literary pieces, presentations, role-play, and collaborations with classmates, this course continues to develop communication skills and cultural awareness. Students explore themes within a variety of contexts, including global challenges, science and technology, art, daily life, personal identity and relationships, and will be able to draw comparisons to other cultures including their own. The study of grammar in context and a general grammar review are also covered. Students who choose the AP level of this course should have attained advanced proficiency in reading, writing, speaking and listening in their previous study of Italian.

**Latin 1**

Grades 9, 10, 11, 12      Year      1 credit  
**4210 (H)    4211 (X)    WL, EL**

Latin 1 introduces students to the culture, language and history of Ancient Roman Civilization. Grammar, structure, linguistic roots, and vocabulary are strongly emphasized. This introduction stresses comprehension of the Latin language by reading stories centered on the town of Pompeii during the first century AD. Students will also study the relationship and enduring influence of antiquity to the modern world. Students who take this course during their 9th grade year will be able to reach the AP level by their senior year.

**Latin 2**

Grades 10, 11, 12      Year      1 credit  
**4220 (H)    4221 (X)    WL, EL**  
**Prerequisite: Latin 1**

The development of communication skills and cultural awareness begun in Latin 1 will continue in Latin 2. Emphasis will be on translation strategies that prepare students to read and understand adapted Latin texts. Language skills are presented in the context of reading comprehension, rather than as isolated concepts. Toward this end, students will encounter a wide variety of materials, including authentic Latin literature, letters, graffiti, inscriptions, mottoes, and coins. The goal is student discovery of linguistic principles through inductive and deductive reasoning, rather than rote memorization. Through a knowledge of the language, ideas, and culture of ancient Rome, students will be able to communicate more effectively in English as well. A focus on words, their parts and histories will foster student curiosity and knowledge about the origins of the student's own language. Proficiency in reading, writing, listening, and speaking will support the acquisition of critical thinking skills.

**Latin 3**

Grades 11, 12      Year      1 credit  
**4230 (H)    4231 (X)    WL, EL**  
**Prerequisite: Latin 2**

Designed for advanced students demonstrating a commitment to a third year of language study and an interest in literature, this course expands proficiency in reading, speaking, and writing, as well as culture awareness. Direct emphasis will be on reading as a focus on communication with the past, using Latin texts that progress from an "adapted" format to original materials, as students gain confidence and skill. Students will encounter new syntax and vocabulary within the context of reading, while practicing skills already mastered. The course will explore the impact of philosophy and biography on Latin literature, and discussion will introduce rudiments of an author's style. The setting of the Late Republic and Early Empire will be pivotal resource topics as students discover connections between culture and literature. Students who successfully complete this course will have the opportunity to enroll in AP Latin the following year.

## World Languages

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### Latin 4

Grades 11, 12 Year 1 credit  
**4240 (H) 4241 (X) WL, EL**  
**Prerequisite: Latin 3 4230 or 4231**

In Latin 4, students prepare for reading and analysis of authentic Latin prose and poetry. Students expand and refine the skills developed in Latin 3 by reading a variety of authors such as Vergil and Caesar. Recognizing grammatical structures, analyzing poetic style, extracting meaning from passages of poetry and prose, and tracing the influences of authors on later literature are main components of the course. An understanding of the social and historical context which spawned the literature will foster development of critical thinking skills.

### AP Latin 4

Grade 12 Year 1 credit  
**4250 (AP)**  
**Prerequisite: Latin 3**

This course is designed for both Advanced Placement candidates and students interested in the advanced study of Latin literature. It places major emphasis on writing critical analyses of texts selected from the AP syllabus. Students apply the broad linguistic skills mastered in earlier courses to read critically texts of a deeper, richer complexity. Study includes the influence on the texts of Roman culture, politics, history, mythology, social structure and literary tradition. A major component is preparation for the AP test which includes scansion of Latin dactylic hexameter, recognition and discussion of a wide variety of rhetorical devices, and the ability to translate at sight.

## SPANISH

### Spanish 1

Grades 9, 10, 11, 12 Year 1 credit  
**4310 (H) 4311 (X) 4312 (A) WL, EL**

Spanish 1 is a course in which the student is introduced to the four basic skills: listening, speaking, reading, and writing. Exposure to Spanish and Latin American cultures includes lessons on sports, pastimes, Spanish-speaking people in the United States, and careers. The student will be able to:

- recognize the essential differences between the Spanish and English sound systems
- read aloud in Spanish with attention to pronunciation
- give appropriate oral and written responses
- understand spoken Spanish
- recall familiar facts of Spanish and Latin American civilizations from reading assignments and study differences between the cultures of Spanish-speaking countries and that of the United States

### Spanish 2

Grades 9, 10, 11, 12 Year 1 credit  
**4320 (H) 4321 (X) 4322 (A) WL, EL**  
**Prerequisite: Spanish 1**

The second year of Spanish continues to refine and expand the skills acquired in Spanish 1. Vocabulary expansion, grammar introduction, and exposure to Spanish-speaking cultures are accomplished by studying Spanish-speaking school life, daily routines, shopping, getting around the city and traditional lifestyles. After completing this course the student will demonstrate the ability to:

- read aloud in a manner acceptable to the fluent Spanish speaker
- briefly express ideas in Spanish on a given topic orally and in writing
- compare American and Spanish-speaking cultures

### Spanish 3

Grades 9,10, 11, 12 Year 1 credit  
**4330 (H) 4331 (X) 4332 (A) WL, EL**  
**Prerequisite: Spanish 2**

This course will continue to develop and refine students' speaking, writing, listening and reading skills learned in Spanish 1 and 2. Emphasis will be placed on navigating language skills in everyday experiences related to food, travel, emergencies, health, and pastimes. Awareness of the way of life, culture, and philosophy in Spanish-speaking countries will also be incorporated. At the honors level, the development of rich vocabulary and the study of more complex grammatical structures will be emphasized. Upon completion of this course, students will be able to:

- respond appropriately to questions
- communicate everyday needs and desires
- write compositions and brief summaries demonstrating varied and appropriate vocabulary and a strong control of grammatical structures and syntax
- comment in Spanish on cultural contrasts and similarities using Spanish

Students who successfully complete this course may have the opportunity of enrolling in AP Spanish the following year.

### Spanish 4

Grades 10, 11, 12 Year 1 credit  
**4340 (H) 4341 (X) WL, EL**  
**Prerequisite: Spanish 3**

This course continues the expansion and refinement of the four basic language skills developed in Spanish 3, enhanced and supplemented by the study of Spanish art, literature, and culture. Students will participate in cooperative activities to become more proficient in the use of the Spanish language and the understanding of Spanish culture. Students who complete this course will be able to:

- respond appropriately to questions
- communicate everyday needs
- express ideas both orally and in writing
- demonstrate an understanding of more complex grammatical principles
- comment on the artistic style of several famous artists
- comment on historical and cultural events in Spanish
- comprehend and analyze short stories and essays in Spanish

### Spanish 5

Grades 11, 12 Year 1 credit  
**4390 (H) 4391 (X) WL, EL**  
**Prerequisite: Spanish 4**

This course is conducted in Spanish and engages students in conversation in a variety of formats toward the goal of further developing oral proficiency. Students will strengthen linguistic skills by increasing vocabulary and spontaneity, improving pronunciation and fluency and acquiring confidence in speaking Spanish. The different types of discourse will include: narration, description, critical commentary, debate, simulations and role-playing. During this course, students will demonstrate the ability to:

- understand a lecture in Spanish on a given topic
- initiate and maintain conversations in Spanish
- speak spontaneously on a given topic
- read and discuss newspaper articles and selected readings from Spanish and Latin American literature
- analyze and discuss Spanish and Latin American films related to our unit of study

### AP Spanish Language 4 - 5

Grades 10, 11, 12 Year 1 credit  
**4370 - 4 (AP) 4380 - 5 (AP) WL, EL**  
**Prerequisite: Spanish 3 or Spanish 4**

Spanish 4 and 5 students are blended together in this two-year, non-sequential course that is intended for students who wish to develop proficiency in modern spoken Spanish. Students who choose this course should have attained an advanced proficiency in reading, listening, writing, and speaking in their previous study of Spanish. Preparation for the Advanced Placement exam will be a key component. While students may take the AP exam after taking this course for one year, they will be best prepared after two years. Students in this course will be able to:

- synthesize information from a variety of authentic written and print resources
- synthesize information from a variety of authentic audio, visual, and audiovisual resources
- engage in written interpersonal communications
- plan and produce written presentational communications
- engage in spoken interpersonal communications
- plan, produce, and present spoken presentational communications

### Spanish 6

Grade 12 Year 1 credit  
**4300 (H) 4301 (X) WL, EL**  
**Prerequisite: Spanish 5 or AP Spanish Language 4-5**

This course offers a culminating experience for students studying the Spanish language. Students will learn to utilize advanced elements of the language by further developing fluency through more complex speaking, reading, writing and listening activities. Through a variety of modalities, e.g., texts, authentic literature, film, podcasts and music, students will gain a deeper appreciation for Spanish communication and culture. Additionally, students will be exposed to contemporary trends in different Spanish-speaking countries to foster understanding of our growing global society.

# WFE

## Wellness/Fitness/Family and Consumer Sciences

John Jones, Department Chairperson

The relationships between individuals, families, and communities are as complex as they are demanding. The Wellness/Fitness/FCS Department offers all Conestoga students the opportunity to develop skills necessary to live and work in a global society.

All students must complete the Health and Fitness course (0.5 credit) designed for 9th grade students. Health and Fitness 9 includes required instruction in Health and Physical Education (PE). All students must be enrolled in a PE course for the other seven semesters of attendance. Up to six semesters of PE may be satisfied through the Team Sport or Extended Experience programs.

Students who are no longer enrolled at Conestoga but who are pursuing a diploma through the Early College program will not be required to take PE if they have met PA state requirements.

### Physical Education Grading Policy

Grades in physical education are based upon the following objective and subjective criteria: student preparedness, participation, demonstrated skill improvement, testing, and attitude. The grades will be posted as follows: “O” for outstanding, “S” for satisfactory, “N” for passing but needs improvement, and “U” for unsatisfactory. A student with two illegal absences will receive a “U” for the semester. A student who receives a “U” grade is disqualified from honor roll status. A final semester grade will be given. Failed courses may be retaken. However, students are not permitted to take more than two physical education courses during a semester. Extended PE will be graded on a P/F basis.

Each semester, students will register for one physical education course. All ninth graders will be enrolled in 5009 one semester and in 5105 the other.

### Health & Fitness 9

Grade 9 Semester .5 credit  
**5009 HF**

Health & Fitness is a one-semester course with a focus on mastery of health concepts and participation in a variety of activities that lead to a lifelong healthy lifestyle. Health & Fitness emphasizes the integration of health education and physical education; the subjects of health and physical education are combined into one course that meets with the same teacher. The purpose of this format is to reinforce the information learned in the classroom setting with activities experienced in the physical education environment. This course provides an opportunity for students to improve their fitness level and to experience how fitness concepts can support healthful living.

The aim of the curriculum is to provide students with planned and balanced programming to develop the knowledge, skills, and attitudes for physically active and healthy lifestyles. Curricular topics or units of study are arranged and sequenced to coincide with one another. For balanced programming in health education, healthy decision-making is emphasized in relation to nutrition, stress, drugs, and alcohol, and family life.

### Physical Education Core 9

Grade 9 Semester .25 credit  
**5105 PE**

The ninth grade Physical Education course focuses on the physical development of each student. In addition, emphasis is placed on developing integral social skills through various physical activities. Students have an opportunity to develop social skills including: problem solving, communication, leadership, teamwork, responsibility, and respect for the diverse abilities of their peers. Areas of concentration include: competitive games, recreational games, and physical fitness activities. Students will also participate in the Presidential Youth Fitness Challenge.

### Physical Education Core 10, 11, 12

Grades 10, 11, 12 Semester .25 credit  
**5615 Semester 1 PE**  
**5625 Semester 2 PE**

Students will learn the concepts of a sound body and a sound mind through the physical education program. The program helps students to gain an understanding of themselves and their potential through activities that can be enjoyed throughout life. Physical Education Core 10, 11, 12 will be organized into centers-based activities with varying levels of intensity to advance student goals of fitness, recreation, and/or competition. Activities include: team sports, racket sports and fitness activities.

**Personal Fitness**

Grades 10, 11, 12 Semester .25 credit  
**5635 Semester 1 PE**  
**5645 Semester 2 PE**

This course is designed to give students the opportunity to learn fitness concepts and conditioning techniques used for attaining optimal physical fitness. Students will learn the basic fundamentals of strength training, aerobic training, and overall fitness training and conditioning through comprehensive weight training and cardiorespiratory endurance activities. Benefits of a regular fitness program include: reduced stress, better sleep, and improved self-confidence and self-esteem. Emphasis will be placed on development of a personalized fitness program for a healthy lifestyle. Students will be empowered to make wise choices, meet challenges, and develop positive behaviors in fitness, wellness, and movement activity for a lifetime.

**Floor Hockey**

Grades 10, 11, 12 Semester .25 credit  
**5175 Semester 1 PE**  
**5275 Semester 2 PE**

You have heard the buzz in the hallways, now come see for yourself what Floor Hockey can do for you! Be part of a team and make friends as you play together in pursuit of a class championship. This fast paced, energetic elective is a great way to fulfill your PE credit. Become a captain, draft a team and try to win it all! Teams will compete throughout the regular season schedule and all teams make the playoffs at the conclusion of each semester. It is competitive, but chill and most of all, FUN!

**Basketball**

Grades 10, 11, 12 Semester .25 credit  
**5185 Semester 1 PE**  
**5285 Semester 2 PE**

Do you love hoops? Join basketball elective class and let the fun begin! Whether competing in a 3v3 class tournament or going for a class championship in 5v5 full court basketball, you will enjoy competing with a class filled with students who love to ball. Learn the game, improve your game, and have a blast during your school day!

**Mind-Body PE**

Grades 10, 11, 12 Semester .25 credit  
**5675 Semester 1 PE**  
**5685 Semester 2 PE**

This course is designed to teach and provide students with techniques to help reduce stress and become more relaxed and strengthen one's mind-body connection. The class will incorporate a variety of practices, such as yoga, Tai Chi, and meditation to help students on a path to overall wellness. Students will thrive within this classroom community which emphasizes support and acceptance.

**Adaptive Physical Education**

Grades 9, 10, 11, 12 Semester .25 credit  
**5655 PE**

This course is a program alternative that is available to meet the needs of students who are temporarily or permanently unable, for physical or medical reasons, to participate in the regularly scheduled physical education program. This program's flexibility permits a student to be changed from one activity to another during the regularly scheduled class. Students will receive a grade(s) and credit for participation in this program. No student will be excused from attending their regularly scheduled physical education classes. Should the attending physician reject all the activity options of the Adaptive Program, the student will be given appropriate alternative assignments for the recommended time period. When a student is released by the attending physician, they will return to the regular physical education program.

**Alternative Physical Education**

Grades 10, 11, 12  
**5145 Team Sport (Fall) 5245 (Spring) .25 credit**  
**5155 Extended Experience PE (Fall) 5255 (Spring) .25 credit**

Students may satisfy up to 1.5 credits of required physical education through involvement in inter-scholastic athletics or other approved alternative PE programs (including club sports: Ice Hockey, Rugby, Squash, and/or Crew). Students intending to take part in Extended Experience PE or club sport must complete an application, available on-line at <http://www.tesd.net/page/640> or in the Main Office. Students intending to take part in a CHS team sport and receive PE credit should visit the Athletics Office for information. Students who do not continue on an athletic team, are not selected for a team, or otherwise discontinue their involvement in a school or community-based alternative PE program will be required to recover the lost PE credits in a subsequent semester. Second-semester seniors faced with recovering PE credits must do so through CHS physical education classes to improve the likelihood of graduating on time.

**Highway Safety**

Grades 10, 11, 12 Semester 1 .25 credit  
**5505 EL (Course fee \$100)**  
 Grades 10, 11, 12 Semester 2 .25 credit  
**5515 EL (Course fee \$100)**

All Conestoga 10th graders are eligible to take this course. Highway Safety provides students with classroom instruction necessary to complete a PA state-approved driver education program. Classroom instruction is designed to equip students with the knowledge and skills to enable them to make sound decisions in driving. Students who have completed or are enrolled in Highway Safety class are eligible to take an approved Behind-the-Wheel (BTW) training course to complete the two-part state-approved driver education program. BTW training courses are available at student expense through the Chester County Intermediate Unit (CCIU) or other state-approved private driver training schools.

## Family and Consumer Sciences

### Child Development Preschool Experience\*\*

Grades 10, 11, 12 Semester .5 credit  
**8049 FC, EL**

The Child Development Preschool Experience course offers students the opportunity to engage in real life teaching experiences and child development through Conestoga High School's on-site preschool. Students become skilled in planning and implementing meaningful lessons and activities that foster the preschoolers to develop physically, intellectually, emotionally, and socially while incorporating the Pennsylvania Learning Standards for Early Childhood Pre-Kindergarten.

### Culinary Arts

Grades 9, 10, 11, 12 Semester .25 credit  
**8015 FC, EL** (Lab Fee: \$25.00)

The objectives of this course include the planning and preparation of meals with an emphasis on nutritive value, budgeting, comparative shopping, timesaving techniques, and procedures and methods related to food preparation. Nutritional analysis will be used by students as they become proficient at meal preparation.

### Nutrition and Foods

Grades 9, 10, 11, 12 Semester .25 credit  
**8055 FC, EL** (Lab Fee: \$25.00)

This course is designed for students with an interest in balanced nutrition and healthy lifestyles. This course will explore menu planning for all types of diet margins with consideration of food allergies and cultural preferences. The course will introduce students to the art of balancing basic nutritional concepts within specific diet restrictions and the application of these concepts through food preparation. Students will plan and analyze menus to satisfy the nutritional needs of a variety of different modern diets.

### Regional Cuisine

Grades 10, 11, 12 Semester .25 credit  
**8045 FC, EL** (Lab Fee: \$25.00)

This course offers students the opportunity to plan and prepare meals focusing on regional and ethnic influences. Students will learn the classic cooking styles of each region of the country as well as the origin and background of various cooking traditions. Multicultural food patterns will be explored.

### Pastry Chef

Grades 11, 12 Semester .25 credit  
**8025 FC, EL** (Lab Fee: \$25.00)

A primary objective of this course is the application of chemistry in classic baking principles and techniques. Students use a team-based approach to prepare professional-grade specialty breads, desserts, pastries, and confections. Additionally, students learn food safety principles that prevent food-borne illnesses in commercial and home food preparation areas.

### Signature Dish

Grades 10, 11, 12 Semester .5 credit  
**8079 FC, EL** (Lab Fee: \$25.00)

**Prerequisite: Culinary Arts, Pastry Chef, Regional Cuisine or Nutrition & Foods**

A professional chef understands that cooking is both an art and a science. The content of this course will cultivate each student's individual cooking style and enhance their comprehensive cooking techniques culminating with a Signature Dish. In this course students will have the opportunity to deeply explore their own cooking style, hone more complex cooking techniques and study the science of baking. Students taking this course are foodies and home chefs looking to collaborate with other like-minded students to enhance their culinary skills, learn new recipes, and explore the world of culinary arts.

### Fashion Design

Grades 9, 10, 11, 12 Semester .25 credit  
**8095 FC, EL**

This course integrates all facets of the fashion and garment industry with a focus on careers. Students will explore fashion cycles, apparel design, textile fibers, and garment construction. Professionals will be invited into the classroom to share their expertise in these areas. An innovative sewing project will be completed.

# BT

## Business/Technology

Noah Austin, Department Chairperson

In the third millennium, businesses are global, technological change is constant, and information is the most valuable commodity. The individuals and nations who design and control information will determine our future.

The focus of the Business/Technology Department at Conestoga is to teach students to understand and use contemporary technology and the information it generates, organizes, transmits and receives. Teachers of business, technology, television, computer assisted design, and computer-generated graphics work together to offer courses that prepare students for leadership roles in the global community. Courses offered by the department provide exposure to software applications and include: personal and business finance and accounting, television production, digital graphics, digital and traditional photography, mechanical and electrical engineering, and structural and environmental engineering.

**Note:** A double asterisk (\*\*) next to a course name indicates that a student may take the course more than one time for credit. Course content and instruction will be individualized to meet student and class needs.

### Accounting 1

Grades 10, 11, 12 Semester .5 credit  
**6009 BT, EL, MA Software: MS Excel**

This course provides an introductory understanding of financial accounting concepts and practices. It is a great first step that can lead to success in a variety of careers and is especially valuable for anyone planning to enter accounting or other business fields, including finance, economics, management and international business. Emphasis is placed on the accounting cycle, including: analyzing business transactions, managing receivables and payables and preparing financial reports. GAAP (Generally Accepted Accounting Principles) and ethics are examined throughout the course as they relate to each area. In class, students will develop strong technology skills using MS Excel. The Personal Finance course is a recommended prerequisite. Students using personal computers will need access to the required software. **This course does not currently meet NCAA eligibility standards for math.**

### Accounting 2

Grades 10, 11, 12 Semester .5 credit  
**6019 BT, EL, MA Software: MS Excel**  
**Prerequisite: Accounting 1**

Students continue to build on the accounting foundation in this advanced course. They will explore the role of accounting information in evaluating corporate financial performance and the importance of this information in executive decisions. Through accounting simulations and case studies, students will develop skills in analytical thinking and apply their knowledge of accounting to real-world situations. This course also focuses on applying ethics and integrity to accounting decisions to demonstrate that a business decision is not just about the numbers. Students using personal computers will need access to the required software. **This course does not currently meet NCAA eligibility standards for math.**

### Personal Finance

Grades 9, 10, 11, 12 Semester .5 credit  
**6109 BT, EL Software: MS Office**

This semester-long personal finance course covers the essential personal finance topics necessary to become a financially competent future member of society. Throughout the semester, students will become economic and personal finance decisionmakers. Students will prepare federal tax returns, set financial goals, create budgets, select an appropriate financial institution, learn how to establish a good credit score, understand debt, explore options for paying for college and understand how to save for retirement. Through project-based learning, students will take part in a financial simulation where they will shop for apartments, select auto and renters' insurance and buy a car. Students will also explore various investment strategies, including risk management and establishing a balanced investment portfolio. This course is beneficial for all students in grades 9 – 12. Students using personal computers will need access to the required software (Microsoft Office Suite).

**Sports and Entertainment Marketing**

Grades 9, 10, 11, 12 Semester .5 credit  
**6149 BT, EL**

This course provides students with the opportunity to learn and apply marketing principles in the field of sports, recreation, and entertainment. Emphasis is placed upon the functions of financing, marketing-information management, promotion, and selling. A significant portion of this program will include hands-on learning through student-developed activities to meet course goals. Instructional strategies may include: computer/technology applications, real and/or simulated occupational experiences, and projects in marketing functions.

**Entrepreneurship**

Grades 11, 12 Semester .5 credit  
**6129 BT, EL Software: MS Office**

In today's world economy there is an unparalleled rise in entrepreneurship. This course will help students understand what it is like to be an entrepreneur and the risks involved in starting and operating a business enterprise. Students will learn strategies of business management, marketing and raising capital for launch and growth. Emphasis is placed on the development of a comprehensive business plan which incorporates all of the financial, organizational and operational aspects of the business. It is recommended that students complete Accounting 1 before taking Entrepreneurship.

**Marketing**

Grades 9, 10, 11, 12 Semester .5 credit  
**6139 BT, EL**

Students in Marketing learn the fundamentals of business marketing, product promotion, and advertisement in today's fast-paced business environment. Examining case studies of real-world examples, students will grasp the theory behind advertising and consumer behavior. This course will span traditional brand marketing, celebrity endorsements, sports marketing, online analytics, and social media strategies. Students will create and deliver a marketing plan and pitch for a fictional business, including but not limited to, a website, business card, company logo, and a brief commercial. This course is recommended for students pursuing a career in business and marketing.

**Digital Photography**

Grades 9, 10, 11, 12 Semester .25 credit  
**8505 BT, VP, EL (Lab Fee-\$25.00)**

This course explores visual and technical aspects of digital photography. The curriculum includes: camera operation, lighting, elements and principles of design, composition and layout. Students will learn to download, organize, edit, manipulate and prepare photos for print and digital communication. Software includes: Adobe Photoshop, iPhoto and others. **This course is also offered for core elective credit in VPA. Access to a digital camera is highly recommended.**

**Advanced Digital Photography\*\***

Grades 9, 10, 11, 12 Semester .5 credit  
**8519 BT, VP, EL (Lab Fee - \$25.00)**  
**Prerequisite: Digital Photography 8505**

This course provides students with the opportunity to effectively communicate ideas and information via digital photography. Students completing this course successfully will be able to demonstrate proficiency using a digital camera and manipulating images using Adobe Photoshop. Students will demonstrate advanced darkroom techniques through the use of personal imagery. Students wishing to repeat advanced photography are encouraged to enroll in Studio Art 1. **This course is also offered for core elective credit in Visual & Performing Arts. Access to a digital camera is highly recommended.**

**Engineering Design, Production and Automation**

Grades 9, 10, 11, 12 Semester .5 credit  
**8649 BT, EL (Lab Fee - \$25.00)**

Students in Engineering Design, Production, and Automation will learn to use drafting and design computer software programs for a variety of design problems. After computer hardware/software orientation, students will learn to read and render several types of technical drawings and output to computer-controlled fabrication machinery. That which is learned will then be applied in the design process. Students will work individually and in small groups on several engineering design activities. Working in both two-dimensional and three-dimensional programs, students will create mock-ups, prototypes and scale models using 3D printers and scanners, computer numeric controlled routers, vinyl cutters, screen printing and laser cutting technologies. This course is recommended for students interested in a career in engineering design and automation.

**Robotic Engineering**

Grades 9, 10, 11, 12 Semester .5 credit  
**8669 BT, EL (Lab Fee - \$25.00)**

This advanced course is designed for students with interests in robotics. This project-based approach will immerse students into the problem-solving engineering design method. Students will apply a problems-based approach to authentic situations using robotic technology. Students will experience a wide variety of practical applications of robotics including: mechanical function, pneumatic actuators, soft robotics, autonomous programming, and control. Students will work in teams to complete design challenges using research and development procedures, testing and analysis techniques. Students will have access to fabrication machinery, additive prototyping, and subtractive manufacturing.

**Architectural Design**

Grades 9, 10, 11, 12 Semester .5 credit  
**8659 BT, EL** (Lab Fee - \$25.00)

This course is designed for students with interests in architecture, design, and curiosity about the spatial relationships around us. Students will approach design with an emphasis on aesthetics and function. This course will focus on residential architecture and its historical influences, landscape architecture, space planning, construction techniques and building materials. Students will form a base of knowledge of building systems, design concepts, and performance criteria, with emphasis on structure. Students will create architectural renderings, floor plans and models using computer aided drafting software and analog technologies. Students will compile a portfolio of designs.

**Mechanical and Electrical Engineering**

Grades 9, 10, 11, 12 Semester .5 credit  
**8629 BT, EL** (Lab Fee - \$25.00)

This advanced course is designed for students with interests in technology, science, or engineering. Students will apply a problems-based approach to authentic situations in robotic technology, mechatronic technology, communications, electronics, and transportation. Solutions will be designed on computers and built in the fabrication lab using a CNC milling machine, a laser engraver, 3D printing machines and traditional tools. Students will work in teams to learn research and development procedures, testing and analysis techniques and applied technology. Topics include: robotic engineering, mechanical engineering, electrical engineering, and transportation engineering.

**Structural and Environmental Engineering**

Grades 9, 10, 11, 12 Semester .5 credit  
**8639 BT, EL** (Lab Fee - \$25.00)

This advanced course is designed for students with interests in technology, science, or engineering. Students will apply a problems-based approach to authentic situations in structural design, construction technology, communications, product design, manufacturing, and environmental engineering. Solutions will be designed on computers and built in the fabrication lab using a CNC milling machine, a laser engraver, 3D printing machines and traditional tools. Students will work in teams to learn research and development procedures, testing and analysis techniques and applied technology. Topics include: structural engineering, design engineering, manufacturing systems engineering, and environmental engineering.

**Additional Technology Courses**

3D Sculpture and Mixed Media

Advanced 3D Sculpture and Mixed Media

Graphic Design and Animation

**Please refer to the Visual & Performing Arts Department section of this publication for course descriptions and prerequisites for these elective courses.**

**Introduction to Television Broadcast Journalism**

Grades 9, 10, 11, 12 Semester .5 credit  
**8549 BT, EL**

Students will learn the basic principles of broadcast journalism, newsgathering, and video editing using Final Cut Pro software. Students will complete hands-on video projects, including but not limited to broadcast news episodes, broadcast news packages, and commercials in collaboration with the Marketing classes using live production, field production and post-production editing techniques. They will function as writers, talent, directors, camera operators and video editors in both live-to-tape and edited broadcasts. Both interpersonal and on-air communication skills will be stressed. Students will produce video and learn elements of advanced journalistic style and the standards involved in producing for the cable network with the goal to possibly have their work showcased on *Good Morning 'Stoga* or T/E TV broadcasts. This course is the prerequisite for Advanced Television Broadcast Journalism (GMS).

**Advanced Television Production/Broadcast Journalism (GMS)\*\***

Grades 10, 11, 12 Year 1 credit  
**8595 BT, EL**

**Prerequisite: Introduction to Television Broadcast Journalism**

This class will meet first period so students can produce and broadcast the morning announcements program, *Good Morning 'Stoga*, during homeroom. In addition, students enrolled in this class will produce packages that will air on both *Good Morning 'Stoga* and T/E News. A strong background in control room procedure and/or journalistic writing, producing, shooting and editing will be necessary.

**Film Screen Writing and Production\*\***

Grades 9, 10, 11, 12 Year 1 credit  
**8489 BT, EL**

Students will produce narrative, experimental, music video, documentary and other types of short films for T/E TV programming and other outlets. They will script, pitch, storyboard, shoot and edit each project. This course will require collaboration, commitment and planning, directing, editing and lighting/sound. Students should have an interest in publishing and sharing their work.

**Sports Broadcasting\*\***

Grades 9, 10, 11, 12 Semester .5 credit  
**8499 BT, EL**

Students will examine different forms of sports media including written, broadcast and internet. Students learn the fundamentals of various components of sports media such as writing game and feature stories, internet streaming, shooting on location, anchoring and play by play, and production. Students will produce an original sports entertainment show as a final project. There will be one requirement to complete a live, T/E TV production outside of the normal class meeting time.

# VPA

## Visual and Performing Arts

Amy Cruz, Department Chairperson

The course offerings in the Visual and Performing Arts Department provide all students opportunities to grow aesthetically, to develop and expand a critical awareness of cultures both past and present, and to acquire the sensitivity needed to distinguish the fine from the mundane. Our intent is to help students to increase their perception and awareness of the environment, to encourage an imaginative and creative approach to problem solving, and to develop self-discipline and confidence to achieve higher levels of performance and appreciation.

**Note:** Nonsequential courses provide a continuing experience which permits a student to elect a particular course for credit more than once during their years at Conestoga. These courses are identified with a double asterisk (\*\*) after the name.

### AP Art History

#### Art History

Grades 11, 12      Year      1 credit  
**7000 (AP) 7010 (H) 7001 (X) VP, EL**

AP Art History is designed for students wishing to earn college credit for an introductory level course in Art History. Students gain an understanding of history and aesthetics through the examination and discussion of painting, sculpture and architecture. Strong reading, writing, and work/study skills are required. Students are encouraged to take the AP Art History Examination. Students who have not taken AP courses in the past or feel that they are not prepared for that level of difficulty may take Art History at the Honors or Accelerated levels. Testing and assessment of writing will be differentiated to meet the needs of students at the various levels. This course is also listed in Social Studies as an elective course.

**\*This course does not currently meet NCAA eligibility standards for Social Studies.**

### Drawing and Painting\*\*

Grades 9, 10, 11, 12      Semester      .25 credit  
**7025 VP, EL**      (Lab Fee - \$15.00)

Drawing and Painting is designed to familiarize students with basic visual concepts and terms. Students will make artworks involving introductory drawing, design and painting skills. Works by a few famous artists will be introduced for inspiration. Students will learn techniques for marker, pencil, crayon, charcoal, chalk and oil pastel, tempera paint and watercolor.

### Ceramics

Grades 9, 10, 11, 12      Semester      .5 credit  
**7029 VP, EL**      (Lab Fee - \$25.00)

Students who successfully complete this course will have learned how to design and create three dimensional forms using clay and ceramic processes. Students will learn how to work in a studio environment to produce pottery and sculpture using the basic clay construction techniques of pinch, coil, and slab. Students will be introduced to throwing on the potter's wheel and to clay modeling. Relief sculpture, glazing, and firing techniques will also be addressed.

### Advanced Ceramics\*\*

Grades 9, 10, 11, 12      Semester      .5 credit  
**7059 VP, EL**      (Lab Fee - \$25.00)

**Prerequisite: Ceramics OR Studio Art 2, 3-D Design**

This course is designed for students who wish to continue to build on the skills learned in Ceramics. Slab building, coiling, wheel throwing and modeling techniques will be used to solve functional and three dimensional design problems in creative ways. Students will be required to keep a sketchbook to contain all sketches, designs, reflections and glaze notes. Experimentation with construction methods, texture, surface decoration, and glazing will be encouraged.

### **3D Sculpture and Crafts**

Grades 9, 10, 11, 12 Semester .5 credit  
**7239 VP, BT, EL** (Lab Fee - \$25.00)

In this course students will explore the techniques and materials used to create 3D art through various mediums and artistic styles. Students are encouraged to explore the concept of 3D art through materials such as balsa wood, sculpture blocks, plaster, clay, chipboard, fabric, wire, and found objects. Students will learn how laser engraving and 3D printing technology can be used to create and alter sculpture. The focus will be on the elements and principles of art, color schemes, composition, design, and art history. The major concepts that will be emphasized through this course are craftsmanship, conceptual thinking and observation.

**This course is also offered for core elective credit in Business/Technology.**

### **Advanced 3D Sculpture and Crafts**

Grades 9,10,11, 12 Semester .5 credit  
**7249 VP, EL** (Lab Fee - 25.00)

**Prerequisite: 3D Sculpture and Crafts or Studio Art 2, 3D Design**

This course is designed for students who wish to continue to build on the skills learned in 3D Sculpture and Mixed Media. Students will create individual sculptural works from various materials such as paper, wood, metal, stone, and found objects. Students will have the opportunity to work in groups to create larger works and installations, and learn how laser engraving and 3D printing technology can be used to create and alter sculpture. Emphasis will be on further development of technical skill, experimentation, and creative problem solving.

### **Graphic Design and Animation**

Grades 9,10,11, 12 Semester .5 credit  
**7259 VP, BT, EL** (Lab Fee - 25.00)

Students in Graphic Design and Animation learn the fundamentals of visual design and animation through still and motion visual communication tools. As our world becomes increasingly visual, graphics are impacting how information is delivered. This course provides experiences for students to use image, type, color, illustration, photography, 3D modeling and animation to create dynamic media. Terminology, design elements and principles of composition are explored through hands-on practice and production. Assignments include: branding and identity, logo design, poster design, advertisement and package design. Motion assignments may include logo, character and advertisement animations for visual presentations, television and product illustration. 2D and 3D software includes: Adobe Illustrator, Photoshop, Animate and Maxon Cinema 4d. Projects may be printed on paper or fabric, 3D printed, CNC engraved or laser engraved on various surfaces. **This course is also offered for core elective credit in Business/Technology.**

### **Digital Photography**

Grades 9, 10, 11, 12 Semester .25 credit  
**8505 BT, VP, EL** (Lab Fee-\$25.00)

This course explores visual and technical aspects of digital photography and digital editing. Students work individually and in groups in and out of the classroom. The curriculum includes phone camera usage and introductory Nikon DSLR camera operation, lighting, elements/principles of design, composition and layout. Students will learn to organize, edit, manipulate and prepare photos for print and digital communication. Students will explore enhancing images for social media/marketing, sports/event, and fine art photography. Software includes Adobe Photoshop, Photos and various apps. Students will work on Apple desktop computers in a photo studio with professional lighting equipment. On-location photography opportunities will be offered to students.

**This course is also offered for core elective credit in Business/Technology.**

### **Advanced Digital Photography\*\***

Grades 9, 10, 11, 12 Semester .5 credit  
**8519 BT, VP, EL** (Lab Fee - \$25.00)

**Prerequisite: Photography 8505**

Students in this course will learn how to use exposure, F/stops, shutter speeds, lighting techniques, white balance, and depth of field to create powerful and compelling images in and out of the studio. This will help students in all areas of photography including event, sports, social media, nature, portrait, and still life photography. Students will have access to classroom Nikon DSLR cameras in school. Students will also learn manipulation and output of files using Photoshop and Lightroom. Skills acquired include working with varies file types, density, contrast and color correction, basic retouching, compositing of images, type and along with special effects and output via inkjet printer. On-location photography opportunities will be offered to students.

**This course is also offered for core elective credit in Business/Technology.**

**\*With teacher approval, students with previous photography experience may be eligible for this course.**



### Studio Art 3

Grades 11, 12 1st Semester .5 credit  
**7159 VP, EL** (Lab Fee - \$15.00)

Grades 11, 12 2nd Semester .5 credit  
**7169 VP, BT, EL** (Lab Fee - \$15.00)

**Prerequisite: successful completion of Studio Art 1 and at least one semester of Studio Art 2**

#### Advanced 2D Drawing, Painting First Semester

Students in this class will continue to refine their drawing and painting skills. Subject matter will include: still life, figure and portrait. Colored pencil, charcoal, pastel, watercolor, acrylic paint and various other media will be used to visually express ideas. Art historical references will enhance students' understanding of color and form. Class critiques will be an important part of the grading process. An independent project will be required.

#### 2D Design Portfolio Development Second Semester

Students will explore visual expression in traditional and digital mediums, including projects in pencil, digital photography, and digital graphics. Additional emphasis will be placed on the development of traditional and/or web-based portfolios. Daily sketching will continue to be a requirement with sketches serving as a resource and inspiration for the works done in class. Class critiques will be an important part of the grading process. An independent term project will be due at the end of the semester. **This course is also offered for core elective credit in Business/Technology.**

### Studio Art 4

Grade 12 Year 1 credit  
**7179 VP, EL** (Lab Fee - \$25.00)

**Prerequisite: at least four successful semesters of Studio Art**

The Studio Art 4 course is a culmination of the art studio experience at Conestoga. Students in this class will continue to develop personal visual imagery through intensive work in drawing, painting and design. In addition to general portfolio development, students will select a particular visual topic of interest. This will lead to a related body of work focusing on a process of investigation, growth and discovery. A major objective of the course is to help students produce the art portfolio required for admission to university art programs, art schools or to augment supplemental admission materials for college. Work outside the studio class is required.

### AP Studio Art

Grade 12 Year 1 credit  
**7180 (AP) VP, EL** (Lab Fee - \$25.00)

**Prerequisite: at least four successful semesters of Studio Art**

AP Studio Art is open to any senior who has completed four semesters of Studio Art. The course will follow the College Board's AP Studio format. Students may submit one portfolio for AP and college credit in either 2D Design, Drawing or 3D Design. In addition to extensive in-class studio work in drawing, painting, mixed media design, and photography, students will select a particular visual topic of interest. This will lead to a related body of work focusing on a process of investigation, growth and discovery. A significant amount of outside work is required. A major objective of the course is to help students produce the art portfolio required for admission to university art programs or art schools, or to augment supplemental admission materials for college.

**Students who have not taken AP courses in the past and feel they are not prepared for the level of difficulty may take Studio Art 4 instead of AP Studio Art.**

## Theatre Courses

### Theatre Arts

Grades 9, 10, 11, 12 Semester .25 credit  
**7205 VP, EL**

Students in this course will become involved in a variety of theatre experiences that may include: ensemble building, stage movement/blocking, scene focus, acting, and improvisation. Students will complete projects by performing for a live audience and will be encouraged to get involved in more theatrical experiences.

### Advanced Theatre Arts\*\*

Grades 10, 11, 12 Year 1 credit  
**7219 VP, EL**

**Prerequisite: Theatre Arts, Broadway Musical Theatre, or Teacher Recommendation.**

This course is for students who have completed the general theatre arts class or who have participated in outside acting classes. It will focus on voice training for the stage, acting (scene work), scenic and lighting design, costumes, and choreography. Students must be self-motivated and have ideas for individual projects. This course may be taken more than once with teacher recommendation.

**7855 Broadway Musical Theatre can be found on page 54 as part of the Elective Music Course offerings.**

### Instrumental Courses\*

Music co-curricular courses may be used to satisfy VPA credit requirements.

#### Concert Band\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**7505 VP, EL                      Audition Required for Percussion**

This ensemble is open to all Brass and Woodwind instrumentalists without an audition. Percussionists must audition to be considered for this group. Members of Concert Band will explore a variety of musical styles from the Renaissance, Baroque, Classical, Romantic, and Contemporary periods as well as new and traditional band repertoire. This group performs two concerts each year. Participation in this instrumentalist organization affords its members an opportunity to be considered for additional advanced performing groups such as Jazz Band, Jazz Ensemble, and Pennsylvania Music Educators Association (PMEA) Festivals. All Concert Band members are strongly encouraged to participate in Marching Band, an extra-curricular band activity that meets outside of the regular school day throughout the late summer and fall seasons.

#### Wind Ensemble\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**7515 VP, EL    Audition Required**

Brass, woodwind and percussion instrumentalists are given an opportunity to audition in early January, prior to course selection.\* Each instrumentalist is expected to demonstrate an advanced level of proficiency, consistent with District 12 Pennsylvania Music Educators Association (PMEA) requirements made available to interested students prior to audition. The group performs at least twice a year, while exploring Renaissance, Baroque, Classical, Romantic, and Contemporary periods as well as new and traditional band repertoire. Participation in this instrumentalist organization affords its members an opportunity to be considered for additional advanced performing groups such as Jazz Band, Jazz Ensemble, Symphony Orchestra and PMEA Festivals. All Wind Ensemble members are strongly encouraged to participate in Marching Band, an extra-curricular band activity that meets outside of the regular school day throughout the late summer and fall seasons.

**\* High School students who move into the T/E School District after the course selection period may contact the instrumental music faculty to make special arrangements for an audition.**

#### Symphony Orchestra\*\*

Grades 9, 10, 11, 12 Year  
**7525 (Strings Only) .5 credit**  
**7535 (Brass, Percussion, Winds) .4 credit**  
**VP, EL    Audition Required for all Brass, Woodwind, Percussion, and Strings**

Musicians in the Orchestra will prepare music to be performed at various times throughout the year, including the annual Winter and Spring Concerts. Various new and traditional orchestral compositions will be explored. Members will explore Renaissance, Baroque, Classical, Romantic, and Contemporary periods as well as new and traditional string orchestra repertoire. Wind, brass, and percussion players are selected from the Wind Ensemble **through competitive audition**. String players are also auditioned.

#### Jazz Band\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**7545 VP, EL    Audition Required**

Brass, woodwind, percussion instrumentalists, guitarists, and pianists are given an opportunity to audition in early January, prior to course selection.\* Each musician is expected to demonstrate an advanced level of proficiency, consistent with District 12 Pennsylvania Music Educators Association (PMEA) requirements made available to interested students prior to audition. Those selected for the Jazz Band will play both contemporary and standard jazz music styles. Improvisational skills will be developed as students prepare for various performances throughout the year. Participation in this course is contingent upon participation in Marching Band, Concert Band, or Wind Ensemble (pianists, guitarists and bassists excluded).

#### Percussion Ensemble\*\*

Grades 9, 10, 11, 12 Year .5 credit  
**7895 VP, EL**

Students in Percussion Ensemble will study many areas of percussion technique and performance. Students will have the opportunity to explore the history of the percussion ensemble, learn how to play percussion instruments from varied genres and cultures, and perform challenging repertoire utilizing these techniques. Students will also develop an in-depth understanding of rudiments, classical percussion, mallet technique, drum set styles and non-traditional percussion practices. This class will also explore the role percussion plays in music technology through GarageBand software, performing with iPads, synthesizers, and patches, and concluding with recording practices. This ensemble performs at the Spring Concert each year.

**Jazz Ensemble\*\***

Grades 9, 10, 11, 12 Year .5 credit  
**7555 VP, EL Audition Required**

Brass, woodwind, percussion instrumentalists, guitarists, and pianists are given an opportunity to audition in early January, prior to course selection\*. Each musician is expected to demonstrate an advanced level of proficiency, consistent with District 12 Pennsylvania Music Educators Association (PMEA) requirements made available to interested students prior to audition. Those selected for the Jazz Ensemble will play advanced jazz literature. Improvisational skills will be developed as students prepare for various performances throughout the year. Participation in this course is contingent upon participation in Marching Band, Concert Band, or Wind Ensemble (pianists, guitarists and bassists excluded).

**String Ensemble\*\***

Grades 9, 10, 11, 12 Year .5 credit  
**7925 VP, EL**

String players will prepare music to be performed at various times throughout the year with the symphony orchestra, including the annual Winter and Spring Concerts. An emphasis on technique, rhythm and note reading skills will assist students in improving upon fundamentals through the performance of diverse repertoire. The main goals in this ensemble focus upon the improvement of individual and ensemble skills related to each student's instrument.

**Vocal Courses**

**Concert Choir\*\***

**7605** Grades 11,12 (Sop/Alto) Year .4 credit  
**7615** Grades 9,10,11,12 (Ten/Bass) Year .4 credit  
**VP, EL**

Concert Choir is a choral organization that performs at least twice a year. Students have opportunities to learn correct singing techniques while experiencing a wide variety of choral literature from the Renaissance, Baroque, Classical, Romantic, and Contemporary periods, sacred and secular, a cappella and accompanied. Concert Choir is open to Tenor/Bass vocalists in grades 9-12 and Soprano/Alto vocalists in grades 11-12 **after singing for the Choral Director to determine vocal range.**

**Camerata\*\***

Grades 11,12 Year .5 credit  
**7625 VP, EL Audition Required**

Camerata is a select choral organization for juniors and seniors that performs at many extracurricular functions throughout the school year, in addition to the Winter and Spring Concerts. Students are chosen from the Concert Choir **through competitive audition.** They are expected to demonstrate an advanced level of proficiency, consistent with District 12 PMEA standards. Auditions for Camerata are open to all vocalists, **who are members of the Concert Choir.**

**Cantata\*\***

Grades 9, 10, 11, 12 Year .3 credit  
 Soprano/Alto Voices Only  
**7616 VP, EL**

Cantata is a choral organization that performs at least twice a year. Students learn correct singing techniques while experiencing a wide variety of Soprano-Alto choral literature. Cantata is offered to all Soprano and Alto voice parts **after singing for the Choral Director to determine vocal range.** All 9th and 10th grade Soprano/Alto Vocalists who wish to sing must participate in this choral group.

**Chorale\*\***

Grades 9, 10 Year .2 credit  
**7635 VP, EL Audition Required**

Chorale is a select vocal organization for 9th and 10th graders who may perform at extracurricular functions, in addition to the Winter and Spring Concerts. Students are selected **through audition and must also be members of Concert Choir or Cantata.**

**Combination Music Courses**

Students are encouraged to participate in more than one musical organization. Use the special combination codes noted below to request multiple performing groups which cannot be scheduled separately. Please note that these courses involve shared time.

- 7565 Concert Band/Choir\*\* .5 credit**
- 7575 Wind Ensemble/Choir\*\* .5 credit**
- 7645 Jazz Band/Cantata\*\* .5 credit**
- 7685 Jazz Ens/Cantata\*\* .5 credit**
- 7695 Orchestra/Camerata\*\* .5 credit**
- 7965 Jazz Band/Chorale\*\* .5 credit**
- 7885 Wind Ensemble/Perc\*\* .5 credit**
- 7975 Jazz Ens/Cantata/Chorale\*\* .5 credit**
- 7985 Jazz Band/Cantata/Chorale\*\* .5 credit**

**Elective Music Courses**

**Applied Music Theory/Composition**

Grades 9, 10, 11, 12 Semester .5 credit  
**7709 BT, VP, EL**

In this class, students apply acquired knowledge of music fundamentals to original compositions using music technology. Participants will work in a technology lab that includes iMac computers, MIDI pianos and recording software. Through the use of Sibelius notation software, students will gain an understanding of melody, rhythm, harmony, texture, form, articulation and dynamics. All work is completed in class, as projects and worksheets, with no formal homework assigned. No previous experience with music notation software or music theory is required.

## Visual & Performing Arts

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### AP Music Theory

Grades 10, 11, 12                      Year                      1 credit  
**7710 (AP) VP, EL**

**Prerequisite: Applied Music Theory/Composition 7709 or Teacher Recommendation**

AP Music Theory is specifically designed for students wishing to gain college credit in music studies. Complex musical structure will be examined utilizing written harmony, analysis, ear training, solfège, and dictation according to traditional Western Music concepts. AP Music Theory also provides orchestration and basic arranging techniques through textbooks and computer programs. Students are encouraged to take the AP Music Theory Examination administered by The College Board.

### Beginning Guitar

Grades 9, 10, 11, 12                      Semester                      .25 credit  
**7805 VP, EL**

This course is designed for students with little or no experience on the guitar. Skills such as tuning, strumming, chording, and melodic note reading will be learned at a comfortable pace. Students who enjoy a relaxing musical instrument that provides personal pleasure and social enjoyment are encouraged to select this course. Steel string guitars are provided, but students may also use their own guitars.

### Advanced Guitar\*\*

Grades 9, 10, 11, 12                      Semester                      .5 credit  
**7819 VP, EL**

Students with at least one year of private guitar instruction or those who have already taken Beginning Guitar are eligible for this course. Individual student progress will be monitored. Music of varied styles will be played and in-depth coverage of music theory, strumming, and chording will be explored. Opportunities for developing original compositions and for solo and group performances will be provided. Students taking this course should have strong note reading skills.

### Broadway Musical Theatre\*\*

Grades 9, 10, 11, 12   Semester                      .5 credit  
**7855 VP, EL**

This course is designed for students who wish to be included in a variety of theatre experiences. Students will survey the growth of American and European-influenced Broadway, Off-Broadway, and cinematic musicals. Audition experiences in acting, singing, and dance will be provided. Class members are encouraged to participate in aspects of Conestoga's major dramatic and musical productions. Students who are piano accompanists and those with previous singing and dancing experiences are welcome, in addition to those who just want to learn about musical theatre.

### Studio Session\*\*

Grades 9, 10, 11, 12                      Semester                      .5 credit  
**7909 BT, VP, EL**

This course gives students the opportunity to perform utilizing popular music as its central focus. Students will perform music in groups from diverse genres including rock, metal, pop, rap, hip-hop, reggae, and country. Emphasis will be placed on creative collaboration and group projects and performances. Students will learn to perform music they know and love, as well as to write songs and improvise in different styles. Students will also collaborate on group projects to compose and perform together in a band setting. Prior knowledge on guitar, bass, drums, piano, or voice is recommended.

### Music Production\*\*

Grades 9, 10, 11, 12   Semester                      .5 credit  
**7849 VP, BT, EL**

Music Production is a hands-on class in which students use the Conestoga audio production studio to create, mix, master, and record music. Students also have access to audio interfaces that allow for the recording of vocals and electric guitar/bass into Garageband and Logic Pro. Students will learn how a recording studio functions, as well as each step of the music production process. Students are instructed about composing electronic music, and then work to compose original electronic selections by using the tools in Garageband and Logic Pro to record, mix and edit their projects. Students will also use Logic Pro to compose a movie score to accompany film.

### Piano Lab\*\*

Grades 9, 10, 11, 12                      Semester                      .25 credit  
**7815 VP, EL**

This course is designed for beginning students with limited or no musical background. Treble and bass clef note reading, chording, and proper hand positions will be covered and individually monitored. Intermediate pianists may also take the course to further their piano technique. Full-size electronic keyboards in a lab setting are provided for each student.

## 2024-2025 Student Organizations

The following clubs and activities were available to students in the 2024-2025 school year. Students are invited to initiate new clubs at any time during the school year. Visit Room 208 for further information.

Academic Competition Team  
 Acting/Improv Club  
 African Education Program (AEP)  
 AI Club  
 Alzheimer's Awareness Club  
 AmnestyxStoga  
 Animal Abuse Awareness Club  
 Anime Club  
 Archery Club  
 Architecture and Design  
 Asian Student Alliance  
 ASL Club  
 Astronomy Club  
 Badminton Club  
 Baking Club  
 Best Buddies  
 Biology Club  
 Black Student Union  
 Bollywood Dancing Club  
 Book Club  
 Brazilian Alliance Club  
 Brighten A Day Club  
 Cans for Chester County  
 Cappies  
 Chemistry Club  
 Chess Team  
 Children of Military Veterans Club  
 Coffee Cart  
 Computer Science Club  
 Computers for Kids  
 Conestoga Fishing Club  
 Conestoga Investment Club  
 Conestoga Neuroscience Club  
 Conestoga Sailing Club  
 Creative Writing Club  
 Data Science Club  
 DECA  
 Desi Club  
 Disabled Student Alliance  
 Drone Club  
 Dungeons and Dragons Club  
 Echoes  
 Engineering Club  
 Envirothon Team  
 E-Sports  
 Ethics Bowl  
 Fellowship of Christian Athletes  
 Film Production Club (Stoga Film)  
 Flower Show Club  
 Forensics Club  
 French Club  
 Gender/Sexuality Alliance GSA  
 Genetics Club  
 Girl Up Stoga  
 Girls in STEM  
 Got Sneakers  
 Graphic Design Club  
 Greek/ Hellenic Culture Club  
 Greening Stoga Task Force  
 Habitat for Humanity  
 Hope and Beyond  
 Horticulture Club  
 HOSA Future Health Professionals  
 Interact  
 Jewish Student Alliance  
 Junior Classical Club  
 Just Green  
 KEY Club  
 Latino Culture Club  
 Lingua Link  
 Linguistics Club  
 Marine Biology  
 Math Modeling Club  
 Middle Eastern- North African Club  
 Morgan's Message Campaign  
 Mudder's Club (Clay and Ceramics)  
 Multicultural Club  
 Muslim Student Association  
 National History Competition  
 National Honor Society (NHS)  
 Natural High  
 Navigate  
 New Gen Stoga  
 New Voters  
 Peer Mediation  
 Philosophy Club  
 Photography Club  
 Pioneer Dance Company  
 Public Policy Club  
 Red Cross Club  
 Robotics Club  
 Russian Voice  
 S.L.A.M  
 Sailing Club  
 Sand Volleyball Club  
 Science Bowl  
 Science Olympiad  
 Shine  
 Ski/Snowboard Club  
 SPADE (Speech and Debate)  
 Stage Crew  
 Stoga Chamber Music  
 Stoga Film  
 Stoga Hair and Makeup Crew  
 Stoga's Case for Smiles  
 Student Belonging Collaborative  
 Student Council  
 Student Executive Council  
 Supplying Veterans with Smiles  
 T/E TV Production Club  
 UNICEF  
 Vision Awareness Initiative  
 Wall Street Business Club  
 Warm Up America

Wellness Club  
 World Central Kitchen Club  
 World Current Events Club  
 Young Democrats Club  
 Young Economists  
 Young Republicans Club  
 Zhong Hua Culture Experience

### Honor Societies

National Art Honor Society  
 National Honor Society  
 Tri-M Music Honor Society

### Co-Curricular Experiences

(Offered for credit during the school day)

Camerata	Magazine ( <i>Frame &amp; Canvas</i> )
Cantata	Newspaper ( <i>The Spoke</i> )
Chorale	Orchestra
Concert Band	Percussion Ensemble
Concert Choir	Science Olympiad
Jazz Band	String Ensemble
Jazz Ensemble	Wind Ensemble
Literary Magazine	Yearbook ( <i>The Pioneer</i> )

### Athletic Club Programs

Athletic clubs are organized and managed outside of the school athletic program. Athletic clubs' affiliation with Conestoga is subject to approval on an annual basis by the administration. There is no guarantee that the clubs will be organized or approved in the future. Listed below are the athletic clubs for affiliated status during the 2024-2025 school year.

Ice Hockey (Boys, Girls)	Crew (Boys, Girls)
Rugby (Boys, Girls)	Squash (Boys, Girls)

**COVER CREDITS**

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# Conestoga High School Four-Year Planning Sheet

Use this worksheet to develop a four-year plan for meeting promotion and graduation requirements. Use the spaces provided to list courses you have taken and will take, indicating the number of periods (Pd), credits (Cr), and course numbers (Cn). If you have questions or need assistance, contact your counselor.

Courses	Grade 9		Grade 10		Grade 11		Grade 12		Pd		Cr		Cn	
	Pd	Cr	Pd	Cr	Pd	Cr	Pd	Cr	Pd	Cr	Pd	Cr	Pd	Cr
English														
Social Studies														
Math														
Science														
Lang.														
Well/Fit														
P. E.														
VPA														
Bus/Tech														
Electives														
CCT														
<b>Total</b>														
<b>Cum Total</b>														
<b>Min Cr Req</b>				5.5									17.0	24.0
<b>Max Pds</b>				7									7	