



# THE CHARTER SCHOOL OF WILMINGTON

## 2026-2027 COURSE GUIDEBOOK

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# MISSION

The mission of The Charter School of Wilmington is to inspire and prepare highly motivated students to thrive both individually and as responsible global citizens through world-class science, mathematics, and technology education.

# VISION

CSW, a national model for excellence in STEM education, exemplifies the highest standards and ideals for teaching and learning, utilizes a holistic approach to promote students' total well-being, and cultivates a community of respect and inclusion while inspiring tomorrow's leaders to pursue new possibilities for a better world.

## BELIEF STATEMENTS

The Charter School of Wilmington (CSW) believes in....

- **INNOVATION:** Critical thinking, problem-solving skills, and collaboration promotes innovation.
- **ETHICS:** An ethical learning environment develops good decision making, habits and virtues.
- **CULTURAL AWARENESS:** Cultural awareness is important to appreciate the unique differences within an interconnected and multicultural world community.
- **MOTIVATION:** Motivation can be fostered by setting high expectations, inspiring each other and celebrating success.
- **RESPECT:** Respect for each other's challenges, beliefs, rights, and property builds honor and self-esteem.
- **MASTERY:** Life-long learning is essential for mastery and success in a changing, highly technological world.
- **SERVICE & SOCIAL RESPONSIBILITY:** Diverse experiences and community outreach build social responsibility.
- **PARTNERSHIPS:** Schools excel through partnerships among faculty, students, administration, parents, business leaders and the broader community.

## EDUCATIONAL OBJECTIVES

CSW's core values are vital to the establishment and maintenance of an ideal learning environment for achieving excellence in STEM education. We believe that excellence results from:

- **Inclusion** - valuing diverse backgrounds, experiences and opinions.
- **Empathy & understanding** - seeing the world through the eyes of others.
- **Caring** - demonstrating concern and treating each other with respect.
- **Service** - working to benefit others and build stronger communities.
- **Responsibility** - acting with honesty, integrity and accountability.
- **Confidence** - believing in ourselves, speaking up and taking action.
- **Love of learning** - exploring curiosities and cultivating interests.
- **Creativity & experimentation** - challenging the status quo with new ideas.

These values describe the manner in which CSW stakeholders aspire to act, engage with one another, and interact with the broader community.

# STUDENT-DRIVEN PROCESS

**RESEARCH:** Students receive information from their school counselor including graduation requirements, the process for course recommendations, and what to consider in relation to their future plans.

**REFLECT:** Students take time to make informed decisions that connect their interests with CSW course offerings. While reflecting, students should discuss their process with their family, get advice from their teachers in the related subject-areas, and consult with school counselors.

**REQUEST:** Once students have reflected and considered their options, recommendations, and goals, they are required to enter course requests for the following year in IC.

**REVIEW:** After requests are made, school counselors will be available in homerooms to review course requests, answer questions, and assist with any issues. Students may request individual meetings with their school counselor at any time.

## UTILIZING THIS BOOK

This course selection book is designed to assist students (along with their parents/guardians) with their decision-making process. Students are encouraged to read the book carefully, considering graduation requirements, goals, co/prerequisites, workload, extracurricular activities, and general interest. Students should engage in conversation with not only their school counselors, but also teachers in related subject areas when considering future courses, along with possible future teachers in order to make informed decisions. Infinite Campus is CSW's student information system (SIS) and is referred to as IC in this book.

## COURSE AVAILABILITY

The courses listed in this book are subject to change; availability is dependent on student demand/interest shown during the spring of the prior school year, staffing, and sometimes funding. Since there is a possibility that some courses listed are not available in the next school year, students are encouraged to enter alternate choices for electives *only*. Students are *not* to request alternates for required courses or AP courses. In the event a student's first choice will not be offered, they are encouraged to review the course selection book to choose another offering and may consult with their teachers and school counselors.

## PHASING SYSTEM

Our academic programs are structured so each student is placed at a level that will challenge them without being overwhelmed. To accommodate the range of students, CSW provides three levels of ability groupings known as **phases**. Each student's phase is initially determined through an assessment process required for placement at The Charter School of Wilmington. Three college preparatory phases exist prior to the AP level of courses (levels 3, 4, and 5) with Phase 5 designated as Honors.

**Phase 3:** College Prep

**Phase 4:** College Prep

**Phase 5:** Honors

**Phase 6:** AP and Dual Enrollment

## PHASE CHANGES

- Parents/Guardians and their student should review performance with the current teacher and discuss options before initiating a phase change.
- To initiate a discussion about phasing, a student, parent/guardian, teacher or school counselor should open conversation among all stakeholders.
- All parties must come to a consensus before the student is moved.

## REQUESTING COURSES

Students should request courses and consult with the appropriate teachers of a given subject area. The course request feature in IC will be available from January 20, 2026 through February 20, 2026. School counselors and teachers will note discrepancies and contact students, if necessary, to resolve conflicts. Students must obtain all necessary course recommendations by the end of the third marking period, *no exceptions*.

## DROP/ADD PROCESS

Once schedules are made available during the summer, students will be notified of the Drop/Add process for the 2026-2027 school year. Course recommendations and requests are required in IC by Friday, 2/20/2026. The process is subject to change and announced in August of the school year. Dates regarding drop/add/replace will be shared on the school calendar, and students will receive reminders so they can plan accordingly.

DROP/ADD PROCESS, CONT.

Requesting teachers is prohibited. If students make requests that do not appear to change anything but a teacher, a change will not be made. Balancing letter days cannot prioritized. **Once drop/add is closed, students will be required to follow their schedule as it appears in IC for five (5) school days before changes can be made (8/31/2026 - 9/8/2026).** The last day for modifications is **9/11/2025**. This is so students can get to know teachers and get a feel for the class, and have the opportunity at sound decision-making. The last day to drop an AP course is **9/25/2026** to allow for a course replacement if necessary. The last day to add a Teacher Assistant block (TA) is 9/25/2026).

GRADING SCALE SYSTEM

GRADE; NUMERIC; QUALITY POINTS

|    |        |     |
|----|--------|-----|
| A  | 93-100 | 4.0 |
| A- | 90-92  | 3.7 |
| B+ | 87-89  | 3.3 |
| B  | 83-86  | 3.0 |
| B- | 80-82  | 2.7 |
| C+ | 77-79  | 2.3 |
| C  | 73-76  | 2.0 |
| C- | 70-72  | 1.7 |
| D  | 66-69  | 1.0 |
| F  | ≤65    | 0   |

WEIGHTING SYSTEM

LEVEL; POINTS ADDED

|                    |      |
|--------------------|------|
| Phase 3            | 0    |
| Phase 4            | 0.25 |
| Phase 5            | 0.5  |
| AP/Dual Enrollment | 1    |

GRADE POINT AVERAGE

The grading scale is a modified 10 point system; GPA is calculated on a 4.0 scale with weight given to higher phases. Only the GPA is weighted. The numerical grades are not weighted on the transcript and all courses are counted in the weighted GPA. Phase 3 (college prep) does not receive any weight and non-phased courses (i.e. courses listed on the transcript without a 3, 4, 5, 6 in front of the course name) do not receive any weight. All GPAs listed are either interim or final GPAs for the year listed.

CLASS RANK

The Charter School of Wilmington does not rank students.

ATHLETIC ELIGIBILITY

Athletic eligibility is determined by [DIAA eligibility guidelines](#).

SCHOOL COUNSELING

Every student is assigned to a certified school counselor who can assist with personal/social/emotional, academic, college and career needs. All students will remain with the same counselor they are assigned to upon entering the ninth grade.

SCHOOL COUNSELORS

 (302) 651-2727

[Please see the counselor distribution here.](#)

- Tola Magbagbeola, Dept. Chair of Student Services..... [amagbagbeola@charterschool.org](mailto:amagbagbeola@charterschool.org); ext. 208
- Josie McClure..... [jmcclure@charterschool.org](mailto:jmcclure@charterschool.org); ext. 206
- Jaclyn Skipski..... [jskipski@charterschool.org](mailto:jskipski@charterschool.org); ext 207



# ATTENDANCE

Attendance plays an integral part in student performance, academic confidence, and social development. CSW encourages all students to attend school regularly while, of course, staying home in the event they are sick. Attendance, attentiveness, and work ethic are considered in the course recommendation process, especially courses at the higher levels. This applies to both overall attendance and class-specific attendance.

## CSW POLICY

A student must be in school by 11:00 am or be present from 7:25 am until 11:00 am to be considered present for the day. Absences include both excused and unexcused absences. As one of the qualifications for promotion, credit for course work, and eligibility for graduation, a student shall not exceed 25 days absent during the school year.

## CLASS-SPECIFIC ATTENDANCE

CSW utilizes a block schedule, with students in 80-minute classes that meet every other day. With this schedule, class attendance becomes even more crucial to student success. Each class missed is equivalent to missing two class periods. Students missing 13 or more class periods in a full year course will not receive credit for the course.

## STUDENT RESPONSIBILITIES WHEN ABSENT

It is the student's responsibility to make up homework/assignments or assessments when absent from school. Students will be given the number of days absent from school to make up work missed; i.e. if absent two days, two days will be given to make up work upon return.

Any assignments, quizzes, or tests known to students before absences occur are due or must be completed the day of the student's return to school (defined as the student's first day back on school grounds).

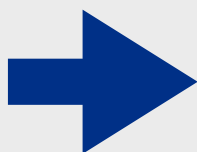
When a student knows of an upcoming excused absence from a class or school, it is the responsibility of the student to arrange make-up work prior to the absence. Students are not permitted to make up work missed or due on a day of an unexcused absence. An unexcused absence can result in a failing grade for all assignments missed or due during the absence.

If at any time a student is experiencing difficulty, they are encouraged to contact their school counselor.

## CONTINUUM OF SUPPORT

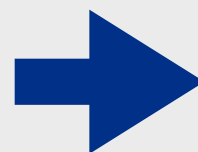
### FAMILY AND STUDENT

Students and their families are expected to communicate with the school about absences that are extended, frequent, or disruptive to the student's learning process.



### SCHOOL COUNSELOR

If a student's absences begin to be excessive in nature, the school counselor will meet with the student in order to discuss the reasons and will partner with the student to manage attendance.



### ADMINISTRATION

A plan will be developed with the student, their parent/guardians, and administration in support of the student's regular attendance.

Review the Student Handbook for a complete listing of attendance policies including absences that are considered excused.

# GRADUATION REQUIREMENTS

## CLASSES PRIOR TO THE CLASS OF 2030

| State of Delaware    | The Charter School of Wilmington | Recommended for admission to competitive higher education institutions                                                          |
|----------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 4 Mathematics        | 4 Mathematics                    | 4 Mathematics                                                                                                                   |
| 4 English            | 4 English                        | 4 English                                                                                                                       |
| 3 Science            | 4 Science                        | 4 Science                                                                                                                       |
| 3 Social Science     | 3 Social Science                 | 4 Social Science                                                                                                                |
| 2 World Language     | 2 World Language                 | ≥3 World Language                                                                                                               |
| 1 Physical Education | 1 Physical Education             | ≥ 20 academic course credits from the major subject areas of Mathematics, English, Science, Social Science, and World Language. |
| 0.5 Health           | 0.5 Health                       |                                                                                                                                 |
| 3 Career Pathways    | 0.5 Senior Research Project      |                                                                                                                                 |
| 3.5 Electives        | 0.5 Computer Science             |                                                                                                                                 |
|                      | 1 STEM Elective                  |                                                                                                                                 |
|                      | 4 Electives                      |                                                                                                                                 |
| <b>24 Total</b>      | <b>24.5 Total</b>                | <b>≥ 26</b>                                                                                                                     |

### RECOMMENDED CREDITS BY YEAR: EXCEED EXPECTATIONS

While the above table shows the graduation requirements for both the State of Delaware and CSW, the table below shows the minimum number of a credits required by grade level, along with the recommended number of credits. CSW recommends students aim to accumulate at least 26.5 credits in order to adequately compete with students from similar academic environments, both locally and nationally. When a student meets or exceeds the recommended number of credits, they will be engaging in a robust, diverse schedule which will allow them to experience a workload that will properly prepare them for post-secondary studies. Students with the recommended credits will still have study hall (s) on their schedule while engaging in both required and elective courses.

| Grade Level | Minimum Required Credits | Recommended Minimum Number of Credits |
|-------------|--------------------------|---------------------------------------|
| 9           | 6.5                      | 6.5                                   |
| 10          | 6.5                      | 6.75                                  |
| 11          | 6                        | 7                                     |
| 12          | 5.5                      | 6                                     |
|             | <b>24.5 Total</b>        | <b>26.25 Total</b>                    |

# GRADUATION REQUIREMENTS

## CHANGES FOR THE CLASS OF 2030

### RAISING THE BAR

While the previous table applies to classes through 2029, new requirements take effect for the Class of 2030 and beyond:

**Science:** Students must now complete a full-year science course during all four years of high school.  
**Computer Science:** All freshmen will take Computer Science Discoveries to build a foundational understanding of modern technology.

**Financial Literacy:** Added to meet state standards and prepare students for life beyond high school.

| Requirement                           | Classes prior to 2030                                              | Class of 2030 & Beyond                                                                                                          |
|---------------------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Science                               | 4.5 Credits                                                        | 4.5 Credits, 1 full year course every year)                                                                                     |
| Financial Literacy                    | Not Required                                                       | 0.5 Credit (State Requirement)                                                                                                  |
| Computer Science Discoveries          | 0.5 Credit                                                         | 1.0 Credit                                                                                                                      |
| General Electives                     | 4                                                                  | Increased electives junior and senior year (≥4)                                                                                 |
| .....                                 |                                                                    |                                                                                                                                 |
| State of Delaware                     | The Charter School of Wilmington (starting with the class of 2030) | Recommended for admission to competitive higher education institutions                                                          |
| 4 Mathematics                         | 4 Mathematics                                                      | 4 Mathematics                                                                                                                   |
| 4 English                             | 4 English                                                          | 4 English                                                                                                                       |
| 3 Science                             | 4 Science                                                          | 4 Science                                                                                                                       |
| 3 Social Science                      | 3 Social Science                                                   | 4 Social Science                                                                                                                |
| 2 World Language                      | 2 World Language                                                   | ≥3 World Language                                                                                                               |
| 1 Physical Education                  | 1 Physical Education                                               | ≥ 20 academic course credits from the major subject areas of Mathematics, English, Science, Social Science, and World Language. |
| 0.5 Health                            | 0.5 Health                                                         |                                                                                                                                 |
| 3 Career Pathways                     | 0.5 Senior Research Project                                        |                                                                                                                                 |
| 0.5 Financial Literacy                | 0.5 Financial Literacy                                             |                                                                                                                                 |
| Electives as determined by the school | 1 Computer Science                                                 |                                                                                                                                 |
| 4 Electives                           | 1 STEM Elective                                                    |                                                                                                                                 |
|                                       | 5 Electives                                                        |                                                                                                                                 |
| 24.5 Total                            | 26.5 Total                                                         | ≥ 26                                                                                                                            |



# ACADEMIC PROGRAM EXPLAINED

## ADVANCED PLACEMENT COURSES

Advanced Placement (AP) courses offer high school students the opportunity to demonstrate college-level achievement. Advanced Placement exams are national tests, which are scored on a scale from 1 to 5, with 5 being the highest possible score. Many colleges and universities allow students who have received a score of 3 or above to waive certain introductory courses and apply those credits toward their degrees. Per House Bill 116, all Delaware public institutions of higher learning grant credit for advanced placement (AP) examination scores of 3 (which is considered passing) or higher.

In order to enroll in any AP course, the student must satisfy the prerequisites and requirements determined by the department offering the course. Students are eligible to take AP exams only for the courses in which they are enrolled for the current academic year.

Please see more information about the workload on the next page.

## REQUIREMENTS

Courses with one asterisk (\*) are either a state requirement or a CSW requirement. There are instances where the course a student placed into can fulfill the requirement. For example, a student can take AP Language & Composition in place of English 3. Students are required to take Math and English every school year. Initial math assessment determines placement as incoming freshmen determines where in the math sequencing they will begin. Prerequisites and corequisites are reevaluated and subject to change on a year to year basis. A teacher recommendation is required for all AP and core graduation requirements.

## ELECTIVE COURSES

We continue to offer a vast array of electives, including some new courses for each school year. Students are encouraged to fill their schedules with electives as well as to choose several alternative classes in case their first choices become unavailable. Electives are required for graduation, but students have the choice to enroll in different electives to explore their interests. Students should keep in mind that although an elective is listed in this course booklet, the elective might not be offered if enrollment is low. Courses not requiring a teacher recommendation will be noted below the course description.

## DUAL ENROLLMENT

In partnership with Delaware Technical Community College (DTCC) and the University of Delaware (UD), The Charter School of Wilmington offers a number of courses which earn college credit. Contingent upon proper completion of course requirements, students earn one (1) full high school credit and three (3) college credit hours. High school credits earned are reported on the student's CSW transcript, while college credit hours will be made available via transcript through the registrar of the awarding college or university. Some dual enrollment opportunities require a fee while there is no fee for the asynchronous courses offered through UD's Early College Credit Program. In order to be considered for UD's Early College Credit program, students must be in grade 11 or 12, and go through a selection process.

## COURSE NUMBERS

The first digit of each course number indicates the department (e.g. science, English, etc.). The fourth digit indicates the phase (3, 4 or 5) except in the case of courses that are not phased (e.g. Driver's Education, Physical Education, Health, Integrated Science & Research). A fourth digit of 6 indicates Advanced Placement (AP) or Dual Enrollment. Students may serve as a Teacher Assistant for no credit; Teacher Assistant does not appear on the transcript.

## CREDIT

Courses that receive one credit (1 CR) are a full school year; courses that receive a half credit (0.5 CR) are one semester, or half the school year in duration. Driver Education receives quarter credit (0.25 CR).

# THE AP COMMITMENT

Students who choose to enroll\* in an Advanced Placement (AP) course will then self-register for the exam through their College Board account at the start of the course school year. AP exams in May are required and are the conclusion to all AP courses at CSW. At The Charter School of Wilmington, students are required to take the exam in order to measure growth and knowledge acquired in the course. Students are given until the end of September to adjust to the workload and decide if they wish to continue with or drop the course. Dropping the course ends the obligation to take the AP exam at the end of the course. [Click here to read the College Board's communication, "What AP Stands For."](#) Exam fees for courses dropped after the first marking period are non-refundable, and students will be charged a cancellation fee for unused exams. AP scores can help students earn college credit or advanced placement (skipping certain courses in college). [Use this tool to find colleges that offer credit or placement for AP scores.](#)

*\*All AP courses require a teacher recommendation from the relevant subject-area teacher, regardless of prerequisites or corequisites. Students are not permitted to register for an exam for a course they are not enrolled in, even if they took the course a previous school year.*

## SUMMER WORK

**[Summer Work 2026: Information will be available here at the end of May.](#)**

Students are responsible for completing the summer work for the associated course by the due date set by the teacher and/or department. Students taking AP courses during the 2026-2027 school year should expect summer assignments for each course. All assignments for AP courses will be posted on the school's website by the end of May. Student must be cognizant of the number of AP courses they have registered for and properly balancing their summer plans with the work commitment. *Students will not be excused from summer work.* **Summer work is required for all AP courses, unless otherwise indicated by the teacher of that course.**

## WORKLOAD

Registering for an AP course in the Spring indicates understanding of the workload. Students should expect to have  $\pm 1$  hour of homework the night it was assigned, per AP course. Students should consider their overall schedule and not just the number of AP courses taken. Students will need proper time management, healthy sleep habits, and developed study skills to maximize success. CSW's recommendation for Advanced Placement courses is for students not to exceed three AP courses in a school year. We recognize that for some students, the progression of their pursuits may lead to exceeding this number. Taking this into account, our recommendation is for students to increase their number of AP courses by no more than one additional course from the previous year. If a student has selected AP courses that exceed the aforementioned recommendation, they are to discuss course load with their families, teachers, and counselor. Exceeding the recommendations indicates understanding of the school's recommendation and realizing that this decision may necessitate additional academic support from outside of the school.

Continued enrollment in an AP course past the first marking period signifies a commitment to complete the course and its associated exam. Fees are non-refundable after the first marking period and an exam cancellation fee will be charged to the student's billing account.

## EXAMS IN MAY

Exam dates are made available during late Spring of the year prior. Students are encouraged to review exam dates well in advance - the College Board typically makes the schedule available as early as June of the prior year. Planning absences during regularly scheduled exams is prohibited and fees will be applied for unused exams. All students should feel confident having had a full year of curriculum and instruction. **Please note that exams take priority over other events that may occur during the exam window, including games and matches.**

In the event that any student - regardless of current grade level - does not take the AP exam at the end of an AP course, the following will occur:

- The "AP" designation will be removed from the course name on the transcript and the course level will be changed to phase 5.
- Quality points and GPA will be adjusted to reflect the above change.
- Students who do not take the AP exam may be required, by the teacher, to take a final exam for the course.
- **Seniors:** Transcripts that report all courses taken through senior year. Should a senior not take the AP exam for a course, the schools receiving the student's final transcript will be notified of the changes, as they require high schools to report any changes to a student's schedule.

# 2026-2027 COURSE OFFERINGS & DESCRIPTIONS



# MATHEMATICS

## PROGRAM INFORMATION

### Integrated Math Curriculum:

The CSW Math department implements an Integrated Mathematics curriculum that spans a three-year period, offering a progressive approach to mathematical education. In contrast to the conventional arrangement of Algebra 1, Geometry, Algebra 2, and Pre-calculus as separate courses, our approach integrates these foundational mathematical subjects seamlessly throughout each of the three years. This integration extends beyond algebra, geometry, and trigonometry, encompassing mathematical modeling, logical reasoning, measurement, probability, statistics, discrete mathematics, and functions, all thoughtfully interwoven into the curriculum.

The distinctive structure and content of our Integrated Mathematics curriculum empower students to advance to Calculus without the need for an additional pre-calculus course, paving the way for a more streamlined and comprehensive mathematical education. This innovative approach fosters a deeper understanding of mathematical concepts and encourages the development of critical thinking and problem-solving skills.

*Eighth grade students who demonstrate exemplary performance on the initial challenge test may qualify for placement in Integrated Math II or Integrated Math III.*

### AP Courses and beyond:

The following AP Math courses are currently offered: AP Precalculus, AP Statistics, AP Calculus AB and AP Calculus BC. Regardless of where a student starts their math journey, the opportunity to reach multiple AP math courses by their senior year is a possibility.

Additionally, there are courses that allow students to learn content beyond AP math curriculums and take classes that would traditionally be taught at the college level. These courses include Beyond AP Statistics, Calculus 3 and Linear Algebra. Courses such as Differential Equations and Discrete math are also available, depending on current student interest.

### Innovative Electives:

We've sought to redefine what can be done and taught within a math course. We offer several electives, including Financial Literacy, SAT Math Prep, Sports Analytics, and Math & Art. With a low barrier to creating and implementing new courses, it is possible to create and adapt to the needs and interests of our current students.

All CSW Students are required to have functioning Ti-84 graphing calculator for daily use.

### INTEGRATED MATHEMATICS I\*

**9103, 9104, 9105**

**1 CR**

This is the first course of a three-course series for algebra-ready students. Topics from algebra include linear equations and inequalities, linear functions, systems of equations and inequalities, exponential functions, and applications, with special emphasis on graphs and their properties. Topics from geometry include transformations, area and perimeter of polygons, conjectures, counter examples, and the nature of proof. Topics from statistics include analyzing and displaying data and predicting trends. Emphasis is on reasoning, connections, communication of mathematical ideas and an introduction to math technological tools.

*Grade 9 only.*

### INTEGRATED MATHEMATICS II\*

**9203, 9204, 9205**

**1 CR**

This is the second of the three-course sequence, often appropriate for students entering the curriculum with strong algebra experience. Topics from algebra include: rational exponents, radicals, polynomials and factoring, quadratic functions, solving quadratic equations by graphing, factoring, completing the square and the quadratic formula, piecewise functions and combining functions. Topics from geometry and trigonometry include: reasoning and proof, theorems involving parallel and perpendicular lines, triangles and quadrilaterals, similar figures, properties of special right triangles, basic trig ratios, areas of regular polygons, circles, surface area, volume, introduction to circular functions, radian measure, and applications of trigonometry. Topics from discrete mathematics/statistics/logic include: probability, permutations, combinations, and decision making. Emphasis is on reasoning, connections, and communication of mathematical ideas.

*Prerequisite: Integrated Math I OR placement.*

### INTEGRATED MATHEMATICS III\*

**9303, 9304, 9305**

**1 CR**

This course is the third of the three-course sequence, appropriate for students entering the curriculum with very strong algebra, geometry, and problem-solving skills. Topics from algebra and analytic geometry include: solving systems with three variables, review of quadratic functions, polynomial and polynomial functions, synthetic division, rational expressions and functions, asymptotes, radical expressions and functions, inverse relations, exponential and logarithmic functions. Trigonometry topics include: trigonometric functions, the Laws of Sine and Cosine, circular functions, radian measure, identities, reduction formulas, graphs, transformations, periodic modeling, inverse trigonometric functions and solving trigonometric equations and identities. Additional topics covered include: conic sections, polar function, parametric and vector valued functions. Emphasis is on reasoning, verbal and written

communication of concepts, and connecting mathematical ideas to real-world problems.

*Prerequisite: Integrated Math II OR placement.*

### PRECALCULUS

**9403**

**1 CR**

This course is designed for students who have completed the Integrated Mathematics curriculum and are not yet prepared for Calculus. Topics include, but are not limited to: further development of polynomial and rational functions, nature of graphs, trigonometric functions and identities, conics, polar and parametric functions, working with vectors and matrices, parametric functions, functional analysis and limits.

*Prerequisites: Integrated Math III.*

### CALCULUS

**9414**

**1 CR**

This course is for phase 4 students who have completed the Integrated Mathematics curriculum or Pre-Calculus and prefer to remain on the phase 4 track. This course is without the theoretical depth, breadth and rigor of a phase 5 level course or an AP level course. Topics include graphs, polynomial and radical functions, rational functions, trigonometric functions, exponential and logarithmic functions, limits, derivatives, applications of derivatives, integrals and applications of integrals.

*Prerequisites: Integrated Math III, phase 4 OR Pre-Calculus, phase 4.*

### CALCULUS

**9415**

**1 CR**

This course is for students who have completed the Integrated Mathematics curriculum, but it is without the theoretical depth, breadth, and rigor of an AP level Calculus course. Topics include graphs, polynomial and radical functions, rational functions, trigonometric functions, exponential and logarithmic functions, limits, derivatives, applications of derivatives, integrals and applications of integrals.

*Prerequisites: Integrated Math III, phase 5 OR AP-Precalculus.*

## PROBABILITY & STATISTICS

**9434**

**1 CR**

This course is designed to investigate data collection, types of distributions, experimental design, sampling techniques and probability. This course does not have the depth, breadth, and rigor of Advanced Placement Statistics. As the course progresses, the students apply statistical analysis to real world data.

*Prerequisites: Integrated Math III; open to 12th grade only.*

## AP PRECALCULUS

**9576**

**1 CR**

AP Pre-Calculus is an accelerated and in depth preparatory course, designed to develop the necessary skills and knowledge to be successful in college calculus. Topics include a comprehensive analysis of functions, with a focus on algebraic rigor, applications, and mathematical notation fluency. Functions explored in this course include polynomial, rational, exponential, logarithmic, trigonometric, polar and parametric. The College Board identifies the four pillars of this course as: modeling real-world data, exploring multiple representations, mastering symbolic manipulation, harnessing a dynamic world.

*Prerequisites: Integrated Math II, phase 5 AND OR Integrated Math III, phase 4 or 5.*

## AP CALCULUS AB

**9506**

**1 CR**

AP Calculus AB is the equivalent of a first semester introductory college course in calculus. Topics include the study of functions, limits, continuity, differential calculus with its applications, and integral calculus with its applications. The Final Exam is the AP Calculus AB Examination administered in May.

*Prerequisites: Integrated Math III, phase 5 OR Calculus, phase 5 and teacher approval OR AP-Precalculus.*

## AP CALCULUS BC

**9516**

**1 CR**

AP Calculus BC is the equivalent of a second semester college calculus course. This course presumes that students have successfully completed an introductory course in calculus. Topics covered include a rigorous approach to limits, parametric functions, vectors, improper integrals, sequences, and series. A graphic calculator is used extensively throughout the course. The Final Exam is the AP Calculus BC Exam administered in May. Students earn a subscore for AB and a score for BC.

*Prerequisites: AP Calculus AB.*

## AP CALCULUS COMBO (AB & BC)

**9636**

**1 CR**

This course is designed to cover all of the content in both the AB and BC curriculums, including: limits, derivatives, integrals, differential calculus and its applications, differential calculus and its applications, parametric functions, vectors, polar functions, sequences and series. The final exam is the AP Calculus BC Exam administered in May. Students earn a subscore for AB and a score for BC. Summer work may be required for students taking this course.

*Prerequisites: AP Precalculus OR Calculus, phase 5.*

## AP STATISTICS

**9536**

**1 CR**

This course is designed to be an investigative approach to the study of data collection, representation, and analysis, with emphasis on problems in a variety of contexts ranging from medicine and social sciences to sports and politics. As part of the course, students conduct a series of studies in order to better understand the drawing of conclusions from statistical analysis of data. Students must take the AP Statistics Exam in May.

*Prerequisites: Phase 5 Integrated Math II OR Phase 4 or 5 Integrated Math III.*

*Open to grades 11 & 12.*

## CALCULUS 3

**9526**

**0.5 CR**

Calculus 3 continues the study of calculus by building on the BC course to include 3 dimensional space. Topics include vectors in 3 dimensions, vector valued functions, multivariable functions and 3 dimensional shapes. Derivatives, integrals and first order differential equations as well as their applications are part of the included material. Students are required to have a TI - 84 silver plus edition and we will use Maple to enhance the 3D graphing and problem solving.

*Prerequisites: AP Calculus BC.*

## LINEAR ALGEBRA

**9485**

**0.5 CR**

This course is designed as a semester course. The course will explore vectors, matrices, and their relationship; looking at the theory and applications involving vectors and matrices will be the focus. Topics for study will include but are not limited to vectors, vector spaces, linear systems, matrix operations, eigenvalues and eigenvectors.

*Prerequisite: AP Calculus BC.*

FINANCIAL LITERACY

9444

0.5 CR

This course is designed to help students grasp the essentials of personal finance, opportunities to practice core skills, and showcase the real-world impact of their financial decisions. This semester course has three major components, a banking component which will include checking and savings accounts, credit cards, credit scores, and taxes. The second component is financial which will include home and car loans, loans and interest, and insurance.

*Prerequisites: Integrated Math II; open to grades 11 & 12.*

SPORTS ANALYTICS

9364

0.5 CR

This semester course is designed to help students learn, understand, and apply principles of statistics to the real world examples of sports. Content includes: how specific statistical measures are calculated, how teams have used data to win games or choose players, and how computer software can help us analyze and visualize data. Students will practice researching sports data, using Excel to manipulate and visualize it, and writing in order to justify a sports opinion. Specific topics and sports covered may vary based on the season. Final project will be required.

*Teacher recommendation is required.*

*Open to grades 10-12.*

SAT MATH PREP

9344

0.5 CR

This course is designed to prepare students\* for the math section of the SAT and increase their preparedness for college level mathematics. In addition to reviewing topics from pre-algebra, algebra and geometry, students will become familiar with the format of the test and learning strategies. Much time will be devoted to practice problems similar to those on the SAT. By the end of the course students should be able to:

- 1) identify and solve different types of problems related to number operations.
- 2) apply approaches to solving multiple choice problems.
- 3) determine what information should be provided to answer open-response questions.
- 4) apply different test preparation strategies on test day.

**Students may be required to purchase a prep book for the class. (Maximum: \$20)**

*\*Second semester 10<sup>th</sup> graders and first semester 11<sup>th</sup> graders.*

MATH LAB

9023

0.5 CR

Math Lab provides the time to supplement pre-algebra content, reinforces Integrated Math I material and lends other additional support needed for academic success in Integrated Math I. Students in Math Lab meet on the days that Integrated Math I does not, receiving additional teacher and peer tutor support. Students are placed in Math Lab by teacher recommendation.

*This course is Pass/Fail.*

PROGRAM INFORMATION

The science curriculum at The Charter School of Wilmington is designed to provide the best possible college-preparatory science education for all students. The core (required) curriculum consists of:

- Integrated Science and Research
- Biology
- Chemistry
- Physics
- STEM Research Project

The entire science curriculum, including the core curriculum as well as electives relating to pre-engineering, medical sciences, and environmental science, foster science literacy and understanding essential for success at the college and career level. The core curriculum is designed to meet and exceed the Next Generation Science Standards, with electives offered to enhance and broaden students' experience prior to entering college. Special attention in all science courses is placed on the content standards and performance indicators outlined in the Next Generation Science Standards.

It is important for students to carefully consider their past performance in science and mathematics when selecting a course of study. AP and Phase 5 courses require students to complete additional coursework, utilize advanced mathematical expertise, and maintain a higher level of independent accountability. If students are planning to take a phase 5 course in the quantitative science courses (Chemistry and Physics), it is recommended that they are in phase 5 math.

Placement & phasing: Phase 4 courses emphasize fundamentals in preparation for college-level courses. Students are actively led toward greater academic independence. These courses are characterized by scaffolding (moving students progressively toward higher understanding), and a variety of methodologies. Phase 5 courses are characterized by increased pace, depth, connections among unit concepts as well as exceptional content depth and complexity. Students are cognitively engaged in independent work and the instructor challenges students to rapidly reach higher-order thinking.

Integrated Science and Research is a required course for all ninth-grade students. With students entering The Charter School of Wilmington from diverse backgrounds and experiences, the ninth-grade curriculum is tailored to capitalize on strengths and fill any gaps prior to students progressing through the remainder of the core curriculum. In the Spring of 9th grade, students will meet with their teachers to discuss an appropriate level for courses moving forward. The teachers will discuss with the students different electives and classes to focus on that will deepen their understanding and support their interests. Together, the student and teacher will pick the appropriate courses for the students for their sophomore year.

Science Course Sequencing & Focuses By Grade Level

|    | Course Options                                                                         | Fall Research Focus                              | Spring Research Focus                                                                     |
|----|----------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------------------------------------------|
| 9  | Integrated Science & Research (required)                                               | Survey Design and Implementation                 | Research project for Sophomore Science Fair participation                                 |
| 10 | Biology (required)<br>Chemistry (upon approval)<br>STEM Elective(s)                    | January: CSW Science Fair                        | March: New Castle County Science Fair, depending on Science Fair performance and results. |
| 11 | Chemistry<br>Physics (upon approval)<br>AP STEM Elective(s)<br>Non-AP STEM Elective(s) | Mentor pairing based on Senior Showcase interest | Mentor meetings begin                                                                     |
| 12 | Physics<br>AP STEM Elective(s)<br>Non-AP STEM Elective(s)                              | Mentor meetings continue                         | Senior Research Showcase                                                                  |



## INTEGRATED SCIENCE & RESEARCH\*

7174

1 CR

Students will develop research skills and an understanding of the research process through local, state, and global environmental issues. Students will explore topics in biology, physics, chemistry, and environmental science as they research and find solutions to these issues. The class will fully prepare the students to develop and carry out their own research project. Within the course, students will select a topic, conduct background research on their topic, develop their experimental design and procedure for data collection, and consider how they will carry out their data analysis.

*Grade 9, required.*

## BIOLOGY\*

7204, 7205

1 CR

This course is designed to expose students to a wide range of topics and offers a solid foundation for future studies in science or science-related fields. The methodology includes both lecture and laboratory experiences supplemented with current event topics. Students in this course will examine cell structure and function, energy relations within and among cells, genetics, evolution, and the relationship between organisms and their environment. The threads that unite the sciences will be emphasized and students will be encouraged to make connections with prior knowledge.

*Prerequisite: Integrated Science & Research.*

*Grade 10, required.*

## CHEMISTRY\*

7304, 7305

1 CR

This traditional college preparatory course is designed to familiarize students with the fundamentals of chemistry and provide a foundation for further studies in science or science-related fields. Topics include chemical formulas and reactions, atomic theory, periodic properties, chemical bonding, stoichiometry, acid-base chemistry, gas laws, introductions to nuclear chemistry, kinetics, and chemical equilibrium. Problem solving is emphasized and laboratory activities are included where appropriate.

*Prerequisite: Integrated Science & Research.*

*Corequisite of Math II, phase 5.*

*Sophomores wishing to double-up in Biology and Chemistry will be required to take both Biology and Chemistry at the phase 5 level. If a sophomore decides to drop a science, they will be required to drop Chemistry, as they can not phase down in one of the two courses. Sophomores enrolled in Chemistry may not enroll in AP Computer Science Principles or AP Computer Science A during that school year.*

## PHYSICS\*

7404, 7405

1 CR

This college preparatory physics course surveys topics of classical physics: mechanics, wave motion, optics, electric and magnetic fields, and forces and electric circuits.

Emphasis is placed on solving problems, inquiry-based activities, and the use of computer-based technology to gather and analyze data.

*Prerequisite: Integrated Science & Research AND Integrated Math III.*

*Phase 5 Prerequisite: Math III, phase 5 OR AP Precalculus.*

*Open to grades 11th & 12th grades students who meet the requirements.*

## AP BIOLOGY

7506

1 CR

AP Biology is designed to be the equivalent of a two-semester college biology lab course taken by biology and other life science majors during their first year in college. The course represents a comprehensive survey of general biology that includes biochemistry, cellular biology, molecular genetics and heredity, biotechnology, diversity, structure and function of organisms, ecology, and evolution. This course will contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with an emphasis on integrating inquiry, scientific argumentation, and quantitative skills. Students will design and master plans for data collection and analysis, apply mathematical routines and connect concepts in and across primary domains of science. This course is designed to prepare students to take the AP Biology exam. Summer homework may be required.

*Prerequisites: Biology AND Biology Instructor Approval. It is recommended, but not required, that students take Chemistry before AP Biology.*

## AP CHEMISTRY

7516

1 CR

AP Chemistry is equivalent to a full year of college introductory chemistry. This course is designed for those students who will be entering a science-related curriculum in college such as engineering, pre-med, chemistry, or research science. The course will include an in-depth review and extension of the Chemistry, phase 5 course as well as exposure to thermodynamics, chemical kinetics, chemical and acid/base equilibria, electrochemistry, and nuclear chemistry. A strong emphasis is placed on critical thinking, problem-solving, and developing higher-level thinking skills. Emphasis is placed on preparing for the College Board AP Examination in May. Summer homework may be required.

*Prerequisites: Chemistry, phase 5, Integrated Math II.*

## AP PHYSICS 1

**7556**

**1 CR**

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: kinematics; dynamics; circular motion and gravitation; energy; momentum; simple harmonic motion; and torque and rotational motion. AP Physics 1 is a full-year course that is the equivalent of a first-semester introductory college course in algebra-based physics and should be taken by future STEM majors interested in fields outside of physics and engineering.

*Prerequisite: Integrated Science and Research, and Integrated Math III, phase 5 or Math teacher recommendation.*

*Course restriction: students may receive graduation credit for **either** AP Physics C or AP Physics 1, but not both.*

*Open to grades 11 & 12.*

## AP PHYSICS C: MECHANICS; ELECTRICITY & MAGNETISM

**7526**

**1 CR**

AP Physics C is a calculus-based, college-level physics course equivalent to the first two semesters of college physics. AP Physics C covers kinematics; Newton's laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; oscillations; gravitation; electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus are used throughout the course. AP Physics C is a course that serves as the introductory course for students pursuing an advanced course of study in physics and should be taken by highly motivated students in a quantitative field. A physics course prior to enrolling in AP Physics C is recommended, but not required.

*Co-requisite: Calculus or AP Calculus.*

*Course restriction: students may receive graduation credit for **either** AP Physics C or AP Physics 1, but not both.*

*Open to grades 11 & 12.*

## AP ENVIRONMENTAL SCIENCE

**7536**

**1 CR**

In this course, students explore the interactions of humans with the natural environment from the standpoint of sustainability. They probe environmental issues, including their scientific basis, history, and society's response to solving environmental problems, and environmental law in order to make critical evaluations regarding sustainable development and public policy that shapes the present and future.

*Prerequisites: Biology.*

## AP RESEARCH

**7736**

**1 CR**

AP Research is the second course in the AP Capstone program, designed to empower students to deeply explore a topic, problem, or issue of their own interest through an independent, year-long investigation. Building upon the foundational skills developed in AP Seminar, students will learn to design, plan, and conduct research using ethical research practices and appropriate methods.

The course culminates in the production of an academic paper of 4,000–5,000 words and a presentation with an oral defense. Students will demonstrate the ability to synthesize information, apply analytical thinking, and contribute new insights to a field of study. This course provides a unique opportunity for students to pursue intellectual passions while developing advanced skills in inquiry, argumentation, and communication that are highly valued in college and beyond. AP Research is recommended for students who are self-motivated, curious, and eager to engage in independent, collaborative, and reflective learning.

Completion of AP Seminar and AP Research fulfills the Senior Research Requirements.

*Prerequisite: AP Seminar.*

## DESIGN & ENGINEERING

**7275**

**0.5 CR**

This course is a high school-level course appropriate for students who are interested in design and engineering. The major focus of the course is to expose students to the design process, research and analysis, teamwork, communication methods, and global and human impacts. Engineering gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based learning. Used in combination with a teaming approach, learning challenges students to continually hone their interpersonal skills, creative abilities, and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

*Prerequisite: Integrated Science & Research and Integrated Math II.*

## BIOETHICS

**7185**

**0.5 CR**

The purpose of this one-semester course is to introduce students to bioethics as a subject through critical thinking, writing, and discussing contemporary issues. Bioethical thinking is a melding of both biology and ethics. Students will be able to approach bioethical problems, break them into smaller, component parts (analysis), and discuss those analyses through oral and written communication, both individually and in groups.

*Prerequisite: Biology.*

**APPLIED BIOLOGY LAB:  
AN INQUIRY-BASED APPROACH****7625****0.5 CR**

This one-semester laboratory course in biology consists of experiments and demonstrations that stress the importance of the scientific method by allowing students to design and implement research. This course is designed to provide students with a practical understanding of biology and its real-world applications. Students will explore various topics including genetics, ecology, biotechnology, and health sciences, with a focus on hands-on experiences and applications in everyday life.

*Prerequisite: Biology.*

**MARINE SCIENCE****7235****0.5 CR**

This course covers the fundamentals of marine life, geological and physical properties of the oceans (such as barrier reefs), water chemistry, and marine ecosystems. Students will learn about the various organisms of the ocean, how they fit into the ecosystems, and how they are affected by current trends in the environment. Dissection will be a requirement.

*Prerequisite: Integrated Science and Research..*

**ANATOMY & PHYSIOLOGY****7365****1 CR**

This course is designed to familiarize students with human anatomy, physiology and associated medical terminology. Emphasis is placed on practical applications in associated health fields. Students are required to work independently and in groups to research and solve simulated medical cases and to perform various medical testing procedures. Topics include but are not limited to: body organization, exercise physiology, and body systems, with particular concentration on how these systems interrelate to maintain homeostasis.

*Prerequisite: Biology.*

**ANATOMY & PHYSIOLOGY****DUAL ENROLLMENT****7546****1 CR**

This course will be offered in conjunction with DelTech. The course is offered at CSW and the students will earn 5 college credits at DelTech. The course is designed to familiarize students with human anatomy, physiology, and associated medical terminology. Topics include but are not limited to body organization, exercise physiology, and body systems, with particular concentration on how these systems interrelate to maintain homeostasis. The cost of the course is \$250.

*Prerequisite: Biology.*

**GENETICS****7605****0.5 CR**

The field of genetics still has so much to explore: mapping genomes, creating genetically modified organisms, and developing new vaccines are just safe examples of the profound ways our knowledge of genetics is being used. This course explores genetics through prokaryotic and eukaryotic organisms, the molecular basis of heredity, patterns of inheritance, evolution, bacterial and viral genetics, genetics of medicine, and biotechnical applications and tools used to manipulate DNA.

*Prerequisite: Biology.*

**NEUROSCIENCE****7255****0.5 CR**

In this one-semester course, students investigate the inner workings of the brain, spinal cord, nervous system, and special senses. Topics include the fundamentals of the nervous system, how the brain develops and learns, how we perceive and interpret the world, and what happens when things go wrong. Lab activities are a large component of the class as well as group research and presentations.

*Prerequisite: Integrated Science & Research.*

**MICROBIOLOGY****7635****0.5 CR**

This one-semester course will explore the natural microscopic world. Topics include the history of microbiology and the tree of life, comparing microbes in their structure, physiology, and genetics, and investigating infectious diseases. We will examine the interactions between bacteria, viruses, algae, and fungi with humans and their impact on the balance of all earth systems. Lab activities are a large component of the class as well as group research and presentations.

*Prerequisite: Integrated Science & Research.*

*Open to grades 11 & 12.*

**FOOD SCIENCE****7715****0.5 CR**

Food Science is a hands-on course that explores the science behind food production, preparation, and consumption. Students will study topics such as nutrition, food safety, preservation, and the chemistry of flavor through experiments and lab activities. The course also addresses food sustainability and global food challenges, connecting science to everyday life. This course is ideal for students interested in STEM, culinary arts, or public health.

*Prerequisite: Integrated Science and Research.*

**ORGANIC CHEMISTRY****7385****0.5 CR**

This is a one-semester course providing an introduction to the chemistry of carbon and includes an examination of families of organic molecules. Properties, nomenclature, structure, reactivity, and identification of functional groups are considered. This course is particularly appropriate for those planning college majors in Chemistry, Biology, Medicine, or Chemical Engineering. Labs may occur as time and resources permit.

*Prerequisite: Chemistry with a grade of B or better.*

**BIOCHEMISTRY****7195****0.5 CR**

This is a one-semester course providing an introduction to the principles of biochemistry. Topics include the identification, structure, and function of macromolecules and enzymes. Other topics may include metabolism and metabolic disorders. This course is particularly appropriate for those planning college majors in Chemistry, Biology, Food Science, Medicine, or Chemical Engineering. Labs may occur as time and resources permit.

*Prerequisite: Organic Chemistry with a grade of B or higher.*

**FORENSIC SCIENCE****7355****0.5 CR**

This course is a problem-based opportunity for students to apply their science background in an extremely timely and popular field. Topics include forensic anthropology, entomology, ballistics, serology, toxicology, autopsy examination, crime scene examination, and traditional and DNA fingerprinting. Emphasis is based on inquiry, research, and technology to investigate data and reach firm conclusions. Students work independently and in groups to research information and solve simulated crimes.

*Prerequisite: Integrated Science & Research; open to grades 11&12.*

**ASTRONOMY****7225****0.5 CR**

This is a lecture/laboratory course designed to introduce students to the fundamental topics and concepts of astronomy. Topics include the creation, life, death and classification of stars, planets, solar systems, and galaxies. Other topics include the origin of the universe, its evolution, and its ultimate fate, black holes, and the search for life on other planets. The tools used by astronomers to measure stellar distances, to classify stars, to search for exoplanets, and to make observations using telescopes will also be a focus of the course.

*Prerequisites: Integrated Science & Research and Integrated Math I.*

**BIOTECHNOLOGY****7145****0.5 CR**

Biotechnology integrates the fundamental concepts of life and physical sciences together with the basic laboratory skills necessary in the biological sciences. Biotechnology introduces students to the fundamentals of biotechnology, current trends and careers in biotechnology, and the ethical aspects of biotechnology. The knowledge and skills gained in this course will provide students with a broad understanding of biotechnology and its impact on society.

The target audience includes all students who choose postsecondary education, providing them with foundational concepts and established laboratory protocols in a broad spectrum of disciplines.

*Prerequisite: Integrated Science & Research.*

## OFFERED SPRING SEMESTER ONLY

### ELECTRONICS

**7215**

**0.5 CR**

This course is for students interested in studying the theory and design of circuits and modern electronics. The course will cover the mathematical fundamentals and theory of circuit design and analysis, op-amps, 555 timers and other analog and digital devices. Students will acquire hands-on experience with soldering, electronic test equipment including analog and digital oscilloscopes, function generators, and digital multimeters, and prototyping and design of circuits using breadboards and circuit simulation software. This will be a lab focused course.

*Corequisite: Honors Physics and Integrated Math III Phase 5.*

### MODERN PHYSICS

**7435**

**0.5 CR**

Students explore the major concepts in physics since the early twentieth century. Topics include special and general relativity, quantum physics, particle-wave duality of nature, nuclear physics, and elementary particle physics.

Experiments in this course include the measurement of the charge/mass ratio of an electron, the measurement of the charge of an electron, and the photoelectric effect.

*Prerequisites: Honors or AP Physics I or AP Physics C.*

*Co-requisite: Calculus.*

### OPTICS

**7465**

**0.5 CR**

Students study topics from classical and modern optics. Topics include image formation (lenses and mirrors, fiber optics, lens design, and optical instruments), wave optics (Fraunhofer and Fresnel diffraction, applied interferometry, coherence, and diffraction gratings), properties of light and matter (polarization, optical boundaries, Schlieren optics, velocity of light, radiometry, light scattering, holography), and quantum optics (electron optics and lasers).

Experiments in image formation, optical instruments, interference and diffraction gratings, holography, and lasers will be completed.

*Corequisites: Honors Physics and Integrated Math III Phase 5.*

# COMPUTER SCIENCE

## PROGRAM INFORMATION

The Computer Science program at The Charter School of Wilmington is designed to equip every student with a foundation in computational logic and algorithmic thinking. Our department offers a robust and diverse curriculum that bridges the gap between basic digital literacy and high-level technical mastery.

The program is strategically structured to prepare students for the rigors of university-level Computer Science and Computer Engineering majors. Furthermore, the curriculum provides a seamless transition into specialized fields such as:

- **Information Systems & IT Management**
- **Network Engineering**
- **Information Security & Cybersecurity**
- **Computer Information Systems (CIS)**

By instilling technical fundamentals early, CSW empowers students to enter these competitive programs with "deliberate confidence." The success of our approach is validated by our alumni, who consistently enroll in and graduate from the nation's premier technical universities, entering the global workforce as leaders in innovation.

**COMPUTER SCIENCE DISCOVERIES\*****4124****1 CR**

Students utilize a systematic problem-solving process to tackle complex puzzles, challenges, and real-world scenarios. The curriculum explores how computers input, output, store, and process information to assist human innovation. By applying data analysis and pattern recognition, students design and program prototypes to address meaningful social problems. The course also features an introduction to Artificial Intelligence (AI) and Machine Learning.

*Grade 9, required.*

**AP COMPUTER SCIENCE PRINCIPLES****4526****1 CR**

This course will prepare students to take the AP Computer Science Principles (APCSP) test. AP Computer Science Principles is a broad introduction to computer science and programming. Students will be expected to apply abstraction to understand and create solutions to challenges, as well as study algorithms. Another aspect of APCSP is understanding responsible computing in a social context, and studying computing's impact on society. APCSP has a performance task component, and the Javascript language will be taught through code.org to facilitate this aspect of the exam.

*Prerequisite: Computer Science Discoveries. Sophomores enrolled in Chemistry may not enroll in AP Computer Science Principles or AP Computer Science A during that school year.*

**AP COMPUTER SCIENCE A****4516****1 CR**

Programming language techniques, grammar and syntax, are utilized and harnessed to build appropriate data structures from the ground up. Dynamically linked-lists form data structures such as, but not limited to: stacks, queues, dequeues, priority queues, heaps, binary search trees, etc. as well as all methods that actuate these structures. Library calls may be introduced in this course, but the emphasis will be on being able to build from dynamically linked lists. Afterwards, the course will be an expeditious and efficient review of CS concepts to emphasize those needed specifically for the AP Computer Science A Exam. Students taking the course are required to take the AP CS A Exam.

*Prerequisite: AP Computer Science Principles with a grade of 80% or higher. Sophomores enrolled in Chemistry may not enroll in AP Computer Science Principles or AP Computer Science A during that school year.*

**ROBOTICS****4275****0.5 CR**

In this one semester course students will work in teams to learn how to build both remote controlled and autonomous robots. Students will design the chassis, propulsion systems, sensor systems, and write the programming code for their robot to solve specific problems or complete specific tasks. This course will utilize the mBot Ultimate platform and Arduino programming environment.

*Open to grades 11 & 12.*

**MASS MEDIA: YEARBOOK PRODUCTION I****4254****1 CR**

Mass Media: Yearbook Production is a hands-on, project-based course dedicated to the creation and publication of the school yearbook. Students in this course function as a professional staff, taking on the roles of journalists, photographers, graphic designers, and marketers. The primary goal is to produce a high-quality permanent record of the school year that captures the diverse experiences of the student body. Because this course results in a published product, students must be highly motivated, detail-oriented, and capable of meeting firm deadlines. Attendance at some after-school events (games, performances, and club meetings) is required for photography and reporting purposes.

*Open to grades 10-12.*



## PROGRAM INFORMATION

### **The Charter School of Wilmington's English Department is committed:**

- To encouraging our students to be life-long readers, writers, speakers, listeners, critical thinkers, and problem-solvers.
- To providing students with quality instruction that appropriately challenges students while creating a climate that honors appropriate risk-taking.
- To assisting students to articulate their thoughts clearly, both orally and in writing.
- To supporting the development of adept and sophisticated communication in a variety of forms and technologies.
- To demonstrating that writing is a process - one that ultimately galvanizes students to think more clearly and deeply about a topic.
- To instructing students in appropriate research techniques to avoid plagiarism, especially the correct use of MLA guidelines as outlined in the seventh edition handbook.
- To helping students use literature to understand their world and themselves. Students at every grade and phase level should expect to read literature that will challenge and engage them
- To offering a broad range of fiction and non-fiction texts that engender an appreciation for English's complexity and create an enduring fascination with literature's rich expression of the human experience.
- To fostering the humane spirit which can result from immersion in critical discussions about literature.

The core English curriculum consists of:

- 9th grade: English 1
- 10th grade: English 2
- 11th grade: English 3 or AP English Language and Composition
- 12th grade: English 4 or AP English Literature and Composition

## ENGLISH 1\*

**8103, 8104, 8105**

**1 CR**

This course is the foundation of the English program and follows the Common Core ELA standards for the grade 9-10 strand. Students become proficient in basic writing skills, as evidenced by producing multi-paragraph essays in these formats: narration, description, cause and effect, and argumentation/persuasion. At least one essay is literature-based and at least one essay employs research and MLA documentation. Students also use creative and appropriate formats other than essays such as letters, proposals, playbills, and oral presentations. In addition, students study grammar, literary devices, and fallacies in reasoning, as well as complete the first level of our vocabulary program. The literature covers all basic genres—poetry, short story, drama, and novel – and is grade-level complex. Cooperative learning is introduced and practiced to help students synthesize information, and critical thinking is emphasized. The depth of study and methodologies employed vary depending on the phase. All English 1 students must complete a MLA-style research paper as part of the requirements of English 1 and as the final exam grade. *Grade 9, required.*

## ENGLISH 2\*

**8203, 8204, 8205**

**1 CR**

This course builds on and reinforces the skills introduced in English 1 and follows the Common Core ELA standards for the grade 9-10 strand. Students continue to develop their writing skills by producing multi-paragraph essays in these formats: definition, compare and contrast, analysis, and argumentation/persuasion. At least one essay is literature-based and at least one essay employs research and MLA documentation. Students also use creative and appropriate formats other than essays such as letters, proposals, blog posts, and oral presentations. In addition, students study nuanced grammar techniques, and sophisticated literary devices, as well as complete the second level of our vocabulary program. The literature has a focus on key foundational and complex works in English particularly from the British Empire, but not limited to such. Cooperative learning continues to help students synthesize information, and critical thinking continues to be emphasized. The depth of study and methodologies employed vary depending on the phase. All English 2 students must complete a MLA-style research paper as part of the requirements of English 2 and as the final exam grade. *Grade 10, required. (AP Seminar can fulfill this requirement).*

## ENGLISH 3\*

**8303, 8304, 8305**

**1 CR**

This course continues to build on and reinforce the skills developed in English 2 and follows the Common Core ELA standards for the grade 11-12 strand. Students continue to develop their writing skills by producing multi-paragraph essays in these formats: classification, analysis, and argumentation/persuasion. At least one essay is literature-based and at least one essay employs research and MLA documentation. Students also use creative and appropriate formats other than essays such as letters, proposals, blog posts, and oral presentations. In addition, students review nuanced grammar techniques, and sophisticated literary devices, as well as complete the third level of our vocabulary program. The literature has a focus on key foundational works of American literature and thought, but not limited to such. Cooperative learning continues to help students synthesize information, and critical thinking continues to be emphasized. The depth of study and methodologies employed vary depending on the phase. All English 3 students must complete a MLA-style research paper as part of the requirements of English 3 and as the final exam grade. *Grade 11, required (AP Language & Composition can fulfill this requirement).*

## ENGLISH 4\*

**8403, 8404, 8405**

**1 CR**

This course has students demonstrate mastery of the skills reinforced in English 3 and follows the Common Core ELA standards for the grade 11-12 strand. Students demonstrate mastery of writing skills by producing multi-paragraph essays in these formats: narration, compare and contrast, analysis, and argumentation/persuasion. At least one essay is literature-based and at least one essay employs research and MLA documentation. Students also use creative and appropriate formats other than essays such as letters, proposals, blog posts, and oral presentations. In addition, students review nuanced grammar techniques, and sophisticated literary devices, as well as complete the fourth level of our vocabulary program. The literature has a focus on more contemporary and/or culturally diverse works, but is not limited to such. Cooperative learning continues to help students synthesize information, and critical thinking continues to be emphasized. The depth of study and methodologies employed vary depending on the phase. All English 4 students must complete a MLA-style research paper as part of the requirements of English 4 and as the final exam grade. *Grade 12, required (AP Literature & Composition can fulfill this requirement).*

**AP SEMINAR**

**8526**

**1 CR**

AP Seminar is an interdisciplinary course that encourages students to demonstrate critical thinking, collaboration, and academic research skills on a wide variety of topics. In this foundational AP course, students engage in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies and foundational literary and philosophical texts; listening to and viewing speeches, broadcasts and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Exploring different points of view and making connections across disciplines are fundamental components of the AP Seminar experience. Completion of AP Seminar *and* AP Research fulfills the Senior Research Requirements. **AP Seminar students are required to take AP Research.**

*Prerequisite: English 1; grade 10 only; by teacher recommendation only.*

**AP ENGLISH LANGUAGE & COMPOSITION**

**8506**

**1 CR**

AP English Language and Composition is an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts as they explore topics like rhetorical situations, claims and evidence, reasoning and organization, and style. During their time in the course, students focus on three types of essays: rhetorical analysis, synthesis, and argumentative. Students are required to take the AP Language and Composition exam in May.

*Open to grade 11 only.*

**AP ENGLISH LITERATURE & COMPOSITION**

**8516**

**1 CR**

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) of rich literary merit from various periods. Students engage in sophisticated close reading and mature critical analysis of these complex texts to deepen their understanding of the ways writers use language to provide both meaning and pleasure. Students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. The ability to read actively and rapidly is necessary for success in this class. All AP English Literature students must complete a MLA-style research paper as part of the requirements of AP English Literature.

*Open to grade 12 only.*

**CREATIVE WRITING I**

**8414**

**0.5 CR**

**Fall Semester Only**

This class introduces students to the craft of playwriting. Through daily exercises, weekly assignments, writing workshops, discussions of student work, etc., students will study and explore the process of writing for the stage by participating in the Delaware Theatre Company's Young Playwrights Festival and producing a two character, 10-page one-act play. This process will expose students to scene/setting structure, action and conflict, stage directions, character development, voice, and dialogue. In addition to playwriting, this class will introduce students to the elements of quality poetry and will allow them to practice those elements by writing their own poems. This class's emphasis is on process, risk-taking, and finding one's own voice and vision. Class participation and a willingness to share your work are essential.

*Open to grades 11 & 12.*

**PHILOSOPHY**

**8164**

**0.5 CR**

**Spring Semester Only**

This course examines philosophers and their ideas from all parts of history and from all parts of the world. Philosophers such as Plato, Aristotle, Socrates, Hobbes, Descartes, Rousseau, Locke, Hume, Marx, and Kant are studied, as well as modern and Eastern philosophies. Topics include: the nature of reality, permanence and change, free will and determinism, the existential process, thinking deductively, inductive logic, informal fallacies, ancient and medieval science, modern scientific thought, and contemporary moral problems.

*Open to grades 11 & 12.*

**AMERICAN CINEMA**

**8184**

**0.5 CR**

The purpose of this class is to develop a more meaningful and deeper understanding of films, specifically American films. Students identify themes permeating American cinema from silent films to present day. There are readings to accompany these films and class is discussion-based in an environment where students can expand their ability to analyze images and discuss popular culture critically. Students create and present projects reflecting their understandings of both readings and film.

*Open to grades 10-12.*



# WORLD LANGUAGE

## PROGRAM INFORMATION

The Charter School of Wilmington's World Language Department offers courses in **Spanish, French, and Latin** to fulfill the State of Delaware's two-year world language requirement. Students are required to complete two consecutive years of study in the same language. Most colleges and universities either prefer or require a minimum of three years of consecutive study of a World Language, and students expecting to apply to competitive universities should complete four years or the highest level of language study attainable. The following courses are offered to fulfill this goal: Spanish III, IV, AP Spanish Language & Culture and Advanced Spanish Literature; French III, IV, AP French Language & Culture and Advanced French Literature; Latin III, IV, AP and Advanced Latin Literature. The Delaware State Standards for World Languages: Communication, Culture, Connections, Comparisons, and Communities are the foundation of instruction at all levels.

**FRENCH I**  
**5114, 5115**  
**1 CR**

French I is a comprehensive introduction to French language and culture emphasizing meaningful, authentic communication, and introducing students to basic vocabulary, grammar, and pronunciation. Over the course of the year, students will learn to understand, speak, read, and write simple questions and sentences on a variety of familiar topics, including self-introductions, family, friends, school, interests, and hobbies. Students will also learn about cultural practices, products, and perspectives to make comparisons between their own culture and other Francophone cultures. Use of the target language is emphasized with a goal toward total immersion.

**FRENCH II**  
**5214, 5215**  
**1 CR**

French II builds upon the skills learned in French I and expands to a wider variety of themes and topics including daily routines, professions, animals and nature, meals and dining, and the arts. Through increased exposure to the target language, the use and comprehension of vocabulary, grammar, pronunciation and cultural competency will be deepened.  
*Prerequisite: French I or French I Challenge Exam.*

**FRENCH III**  
**5314, 5315**  
**1 CR**

In addition to continuing to hone grammar skills, French III introduces students to French literature and develops written and oral proficiency, through the use of authentic French literature and language-based technology programs.  
*Prerequisite: grade of C or better in French II.*

**FRENCH IV**  
**5414**  
**1 CR**

Students continue their study of French literature and apply grammatical skills through the written and oral discussion of related themes. The course includes watching and discussing francophone film as well as reading and discussing authentic French literature.  
*Prerequisite: Grade of C or better in French III.*

**AP FRENCH LANGUAGE & CULTURE**  
**5516**  
**1 CR**

This class will prepare students for the comprehensive test. Students will learn to understand a wide variety of authentic written and spoken French, to answer an email prompt (interpersonal writing), to compose a persuasive essay after having been presented with a written text, an audio clip and a chart, each presenting differing views on a topic, (presentation writing), to conduct a conversation (interpersonal speaking), and to speak for several minutes on a topic of interest derived from subject matter in the curriculum (presentational speaking). The exam, and curriculum, covers 6 themes: world challenges, cultural identity, science and technology, daily life, arts, and family and community.  
*Prerequisite: grade of B or better in French III/IV.*



**SPANISH I**

**5103, 5104, 5105**

**1 CR**

Spanish I is a comprehensive introduction to Spanish language and culture emphasizing meaningful, authentic communication, and introducing students to basic vocabulary, grammar, and pronunciation. Over the course of the year, students will learn to understand, speak, read, and write simple questions and sentences on a variety of familiar topics, including self-introductions, family, friends, school, interests, and hobbies. Students will also learn about cultural practices, products, and perspectives to make comparisons between their own culture and other Hispanic cultures. Use of the target language is emphasized with a goal toward total immersion. The proficiency goal for this class is between Novice Mid and Novice High.

**SPANISH II**

**5203, 5204, 5205**

**1 CR**

Spanish II builds upon the skills learned in Spanish I and expands to a wider variety of themes and topics including health, technology, housing, and the environment. Through increased exposure to the target language, the use and comprehension of vocabulary, grammar, pronunciation and cultural competency will be deepened. The proficiency goal for this class is between Novice High and Intermediate Low. *Prerequisite: Spanish I or Spanish Challenge Exam.*

**SPANISH III\***

**5303, 5304, 5305**

**1 CR.**

Spanish III is an intermediate level course that enriches and expands on what has been learned in the first two years of instruction, while focusing on increasing linguistic and cultural competency. The course is communicative in its approach and requires students to actively read, write, analyze, and converse in the target language about a variety of topics in meaningful contexts and with greater accuracy. There is an emphasis on Latin American and Spanish culture and students will be exposed to art, literature and societal issues pertinent to each region. The proficiency goal for this class is between Intermediate Low and Intermediate Mid. *Prerequisite: grade of C or better in Spanish II.*

**SPANISH IV**

**5404, 5405**

**1 CR**

Spanish IV is an intermediate level course that enriches and expands on what has been learned in the first three years of instruction, while focusing on increasing linguistic and cultural competency. The course is communicative in its approach and requires students to actively read, write, analyze, and converse in the target language about a variety of topics in meaningful contexts and with greater accuracy. There is an emphasis on Latin American and Spanish culture and students will be exposed to real issues pertinent to communities around the world. The proficiency goal for this class is between Intermediate Mid and Intermediate High. *Prerequisite: Grade of C or better in Spanish III.*

**AP SPANISH LANGUAGE & CULTURE**

**5506**

**1 CR**

This class will prepare students for the Spanish Language & Culture AP exam. Students will learn strategies to understand a wide variety of authentic written and spoken Spanish, to respond to a formal email prompt (interpersonal writing), to compose a persuasive essay after having been presented with a written text, an audio clip and a chart, each presenting differing views on a topic, (presentational writing), to conduct an informal conversation with a peer (interpersonal speaking), and to speak for several minutes on a topic of interest derived from subject matter in the curriculum (presentational speaking). The exam, and curriculum, covers 6 themes: world challenges, cultural identity, science and technology, daily life, arts, and family and community. *Prerequisite: "B" or higher in Spanish IV or a junior/senior with a Gold Level Certificate of Multiliteracy and a "B" or higher in Spanish 3 or Spanish 4 or must be a sophomore with a Diamond Level Certificate of Multiliteracy and a "B" or higher in Spanish 2 or 3.*



**LATIN I**  
**5124, 5125**  
**1 CR**

Students study basic grammar and learn the essential elements of Latin pronunciation and intonation. They read aloud Latin passages that have been modified for comprehension. The relationship of English to Latin is emphasized in vocabulary building, word derivation, and prefix and suffix meanings. The geography, history, government, and culture of the Roman Empire are studied.

**LATIN II**  
**5224, 5225**  
**1 CR**

Students continue the study of Latin grammar. Emphasis is given to verb forms and their relationship to English. Students begin to translate original Latin and continue to study the culture and history of the Classical World.  
*Prerequisite: Latin I or Latin Challenge Exam.*

**LATIN III**  
**5324, 5325**  
**1 CR**

Students study more complex grammatical structures. Course readings begin to focus on original Latin. Students examine original texts in translation and continue their study of the culture and history of the Classical World.  
*Prerequisite: grade of C or better in Latin II or teacher approval.*

**LATIN IV**  
**5425**  
**1 CR**

Students read, analyze, and evaluate original works of Latin in both prose and verse. Authors studied include Ovid, Catullus, Virgil, Cicero, and Julius Caesar.  
*Prerequisite: grade of C or better in Latin III or teacher approval.*

**AP LATIN**  
**5546**  
**1 CR**

Students examine selections from Vergil’s Aeneid & Caesar’s Gaelic Wars while reading and analyzing selected works in translation. Students enrolled in this course are required to take the Advanced Placement Exam.  
*Prerequisite: grade of B or better in Latin III.*

**INDEPENDENT STUDIES**

**ADVANCED FRENCH LITERATURE**  
**5535**  
**1 CR**

Students gain proficiency in reading and understanding and in formulating and expressing critical opinions in both written and oral form. Students develop the ability to analyze and discuss critically representative works of French Literature. This non-AP class meets once a week for an hour; students do required reading on their own. This class is open to students who a) have finished either AP French or French IV previously or b) students who are taking AP French or French IV in conjunction with Advanced Literature Class.  
*Teacher recommendation required.*

**ADVANCED LATIN LITERATURE**  
**5525**  
**1 CR**

Students examine and analyze the works of one or more Latin poets in great detail and explore a variety of themes related to ancient Roman culture and views. The authors to be studied vary and may include Horace, Martial, Plautus, and Lucretius.  
*Teacher recommendation required.*

**ADVANCED SPANISH LITERATURE**  
**5515**  
**1 CR**

This non-AP course is offered as an independent study for those students that have finished Spanish IV or AP Spanish and wish to continue their studies of Spanish. It is based on selected works from the literature of Spain and Spanish America. The objective of the course is to introduce students to the interpretation and analysis of literature in Spanish. The class meets once a week and it is required that students do the readings on their own. This class is open to students who a) have finished either AP Spanish Language and Culture or b) students who are taking AP Spanish in conjunction with Advanced Literature Class.

**CONTEMPORARY LATINX CULTURE**  
**5445**  
**1 CR**

This course is offered as an independent study for those students that have finished Spanish IV or AP Spanish and wish to continue their studies of culture and politics of Latin America and the Latinx communities in the United States. The objective of the course is to introduce students to the current events and social issues related to contemporary life and global challenges of the region. The class meets once a week and it is required that students complete all course work independently before class meetings.  
*Open to students who a) have finished either AP Spanish Language and Culture or b) students who are taking AP Spanish in conjunction with Contemporary Latin American Culture class.*



# SOCIAL SCIENCE

## PROGRAM INFORMATION

The Social Studies curriculum at The Charter School of Wilmington includes a three-year requirement. Freshmen are required to take our Integrated Social Science course, which includes a foundation of economics, civics and geography. Sophomores take our World History course, which examines topics ranging from the European Renaissance to global issues of the 21<sup>st</sup> century (equal emphasis is placed on Europe, Asia, Africa and the Americas). Juniors take our United States History course, which covers the U.S. Civil War to present-day U.S. History. In addition, we offer a wide range of advanced placement, full-year and semester elective courses that focus on a variety of topics that might interest our students.

All of our courses strive to prepare students for college as well as long-term global citizenship. Some of the key elements emphasized in our social studies curriculum include:

- Critical thinking, problem-solving skills, and collaboration to promote innovation.
- An ethical learning environment that develops good decision making, habits, and virtues.
- Cultural awareness that is important to appreciate unique differences within an interconnected and multicultural world community.

**INTEGRATED SOCIAL SCIENCE\***

**6103, 6104, 6105**

**1 CR**

This course is designed to prepare students for upper level social studies courses. The focal points of instruction are government and economics. In the Government basics segment, students will learn about the structure, purpose, principles and ideals of governments past and present, with particular attention paid to the responsibilities, rights, and privileges of U.S. Government and citizenship. In the Economics segment, students will analyze the various economic systems and the concepts of micro and macroeconomics. The skills acquired in these units will be applied through examination of foreign and domestic current events. Above and beyond meeting the state standards, students will learn to think critically about governments, understand the importance of active citizenship, appreciate our national heritage, develop educated opinions, use technology to analyze and learn about Social Studies, analyze controversial issues, and develop a decision making process.  
*Grade 9, required.*

**WORLD HISTORY\***

**6203, 6204, 6205**

**1 CR**

This course examines topics ranging from the European Renaissance to the problems the world faces in the 21st century. Major topics examined include regional civilizations (400-1500), the emergence of the "modern" world (1000-1500), the age of exploration (1450-1770), revolutions, ideologies, and technological change (1750-1914) and the modern era (1900-present). Equal emphasis will be placed on Europe, Africa, the Americas and Asia.  
*Grade 10, required.*

**UNITED STATES HISTORY\***

**6303, 6304, 6305**

**1 CR**

This course begins with an examination of the issues and challenges leading up to the Civil War. The focus of the curriculum includes investigations of significant political, social and economic events that have taken place over the last 150 years of American history. Topics incorporated include the Civil War and Reconstruction period, World War I and World War II, the Great Depression, the Cold War, and the rise of the United States as a world power throughout the 20th century. The course typically concludes with a look at America's involvement in Vietnam, the Watergate era and the cultural transformations that occurred in the United States during the 1960s and 1970s.  
*Grade 11, required.*

**HORN ENTREPRENEURSHIP INSTITUTE'S EntreX LAB**

**6406**

**1 CR**

**DUAL ENROLLMENT**

Do you have an idea that would improve your community, change the world, disrupt the current marketplace? Are you interested in exploring how to solve some of the world's most pressing issues? EntreX Lab provides a hands-on approach to learn the entrepreneurial skills of idea generation, creative problem solving, leadership, evidence-based decision making, resilience, teamwork, and persuasive communication. In the course, students focus building a venture to solve a problem that is meaningful to them. Along the way, they build the mindset needed to create, capture, and deliver value from new ideas in any sector. With opportunities to connect with like-minded peers across the state and throughout the world, this course serves as an empowering opportunity to turn ideas into action. [Watch here to learn more.](#)

*Open to grades 11 & 12.*  
*There is a \$500 cost to earn credit through the University of Delaware. Students looking to take the course and not earn college credit will not be required to pay the fee.*

**INTERNATIONAL RELATIONS**

**6135**

**1 CR**

This full-year elective course is designed to equip students with the skills needed to understand the global political system. The interconnectedness of today's societies requires a deeper understanding of world events and the personal impact they are having. Students will come to not only know "what" is going on in the world, but "why" these events are happening. It is expected that students participate in daily open-forum discussions of contemporary issues. This course will also introduce students to the basics of political theory as well as the evolution of the international system. An examination of international conflict, US foreign policy, diplomacy, and the UN system lay the foundation for a highly engaging simulation fourth marking period in which students act as foreign leaders applying the skills and knowledge in the previous marking periods.  
*Open to grades 10-12.*



## AP WORLD HISTORY: MODERN

**6536**

**1 CR**

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

*Prerequisites: Integrated Social Science, phase 5; by teacher recommendation only.*

## AP U.S. GOVERNMENT & POLITICS

**6526**

**1 CR**

AP U.S. Government and Politics provides a college-level, nonpartisan introduction to key political concepts, ideas, institutions, policies, interactions, roles, and behaviors that characterize the constitutional system and political culture of the United States. Students will study U.S. foundational documents, Supreme Court decisions, and other texts and visuals to gain an understanding of the relationships and interactions among political institutions, processes, and behaviors. Underpinning the required content of the course are several big ideas that allow students to create meaningful connections among concepts throughout the course.

*Prerequisites: open to phase 5 students in grades 11th & 12th (priority given to 12th graders); phase 4 students with a final grade of 93% or higher may be considered.*

## AP COMPARATIVE GOVERNMENT & POLITICS

**6556**

**1 CR**

AP Comparative Government and Politics is an introductory college-level course in comparative government and politics. The course uses a comparative approach to examine the political structures; policies; and political, economic, and social challenges of six selected countries: China, Iran, Mexico, Nigeria, Russia, and the United Kingdom. Students cultivate their understanding of comparative government and politics through analysis of data and text-based sources as they explore topics like power and authority, legitimacy and stability, democratization, internal and external forces, and methods of political analysis.

*Prerequisites: open to phase 5 students in grades 11 & 12; phase 4 students with a grade of 93% or higher may be considered.*

## AP UNITED STATES HISTORY

**6516**

**1 CR**

This intense and rigorous course is meant to be the equivalent of an introductory college course and prepares students for the Advanced Placement examination in American History. Students are responsible for thoroughly learning material from Pre-Colonial America to Contemporary America. In addition, students have to be proficient in analyzing historical documents and essay writing. Students accepted into this course are required to take the AP examination. This course satisfies the U.S. History requirement.

*Prerequisites: World History, phase 5; World History, phase 4 students with a grade of 93% or higher may be considered.*

## AP ECONOMICS

**6506**

**1 CR**

This action-packed Advanced Placement (AP) course prepares students for the AP examination in both Microeconomics and Macroeconomics. Students are required to take both examinations in May. Microeconomics focuses on the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Macroeconomics focuses on the U.S. economic system as a whole. Topics include national income, price-level determination, economic performance measures, the financial sector, stabilization policies, economic growth and international trade. In addition, this course develops students' analytical and decision making skills through the application of the economic way of thinking.

*Prerequisites: open to phase 5 students in grades 11 & 12 (priority given to 12th graders); phase 4 students with a grade of 93% or higher may be considered.*

## AP PSYCHOLOGY

**6546**

**1 CR**

This course is designed to prepare students for the AP Psychology test in May. Students are introduced to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles and phenomena associated with each of the theoretical perspectives within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

*Prerequisites: open to phase 5 students in grades 11 & 12 (priority given to 12th graders); phase 4 students with a final grade of 93% or higher may be considered.*

# HEALTH, PHYSICAL & DRIVER EDUCATION

## PROGRAM INFORMATION

**Health** is a required, one semester, course typically taken during freshman year. This includes topics such as mental and emotional health, first aid and injury prevention, communication, relationships and consent, reproductive health, nutrition and fitness, and drug prevention. Units are taught using a project based, hands-on approach.

**Physical Education** is taken over two separate semesters, typically during freshman and junior year. The units covered include areas such as fitness, individual sports, lifetime activities, team sports, heart rate analysis, and cooperative and competitive learning in an active setting. Students will focus on different units during each semester of Physical Education. We offer a wide range of elective courses in our content area in addition to the required Physical Education courses.

**Driver Education** is offered during students' sophomore year as a free class, and counts as a ¼ credit. Students complete the in-class portion of the rules of the road and also the in-car phase, where they will have several hours of hand-on experience behind the wheel. A blue slip is offered to the students who are able to pass both portions of the course.

Classes are focused on developing the students' ability to make healthy, responsible decisions in their own lives and taking ownership of their overall wellness and daily habits.

## HEALTH\*

**2104**

**0.5 CR**

This course is based on the Delaware Department of Education Curriculum Framework guidelines. It includes the following areas of study: emotional health, physical activity, nutrition, family life, sexuality, tobacco, alcohol and other drugs, injury prevention, personal and consumer health, and community and environmental health. The National Health Education standards are implemented throughout the course.

*This course is required by the state of Delaware.*

## PE 1\*

**2204**

**0.5 CR**

This course is designed for 9th graders and emphasizes physical activity through a variety of team and individual sports. It focuses on improving students in each of the health-related fitness components. Students participate in FitnessGram® testing to measure progress from the start to the end of the semester.

## DRIVER EDUCATION

**0204**

**0.25 CR**

### GRADE 10 ONLY\*

Driver Education consists of 44 hours of instruction with 30 hours of classroom instruction; the “in-car” driving phase comprises of seven hours of “behind the wheel” experience, and seven hours of observation. Students are taught skills to drive safely. Successful course completion allows students to obtain a Delaware driver's license. Eligibility for the driving phase of the course is determined by [DIAA academic eligibility guidelines](#).

*Requirements: students must be 15 years old by December 31st of their sophomore year to enroll. If not, the student can enroll during grade 11.*

## PE 2\*

**2304**

**0.5 CR**

This course is designed for 11th grade students and continues to emphasize the importance of improving each of the health-related fitness components and encouraging students to be active lifelong. Students participate in various individual and team sports, most of which are not covered in PE1. Students will also participate in FitnessGram® testing to measure progress from the start to the end of the semester.

*Prerequisite: PE 1.*

## FITNESS & WELLNESS

**2304**

**0.5 CR**

### PE 2 ALTERNATIVE

This course meets graduation requirements for students second 0.5 credit toward Physical Education. This course is an alternative to the traditional lifetime sports and activity-based curriculum. The course will focus on the health-related components of fitness, training principles, strength and conditioning activities, and a variety of individual and group exercise programs which will help students connect fitness to overall wellness. Team and individual oriented fitness goals will aid students in working together to achieve success. Varied physical activities will give students practical experiences with the ultimate goal of self-directed lifetime wellness.

*Prerequisite: PE 1.*

*Open to grade 11.*

## COMPETITIVE GAMES & TOURNAMENT SPORTS

**2164**

**0.5 CR**

This course explores various high-competition games and tournament sports. Units may include Water Polo, Pickleball, Lacrosse, Touch Rugby, Capture the Flag, Cricket, Kan Jam, Speedball, and Spikeball®. Students learn the basic rules of each unit and apply team strategy to achieve success on the field or court. This course is also designed to improve students' outlook toward physical activity, competition, and team play while developing individual skills involving tactics, communication, and sportsmanship.

*Prerequisite: PE 1.*

## SPORTS MANAGEMENT & MARKETING

**2184**

**0.5 CR**

This elective course offers students the opportunity to explore various aspects of the sport industry, including marketing, finance, event planning, leadership, and management. Through interactive lectures, case studies, guest speakers, and hands-on projects, students will gain insight into the management side of sports. Topics may include sports marketing strategies, budgeting, event planning and execution, ethics, sports management, and leadership.

*Prerequisite: Open to grades 11 & 12.*

**STRENGTH & CONDITIONING****2214****0.5 CR**

This class focuses on common fitness-related exercises in an active setting. Proper techniques and progressive training principles are used to develop quality muscular strength, endurance, and cardiovascular health. Gain hands-on experience with tools like heart rate monitors, that can enhance personal fitness and wellness goals. A review of musculoskeletal anatomy provides the foundation for analyzing human movement. Must be active and able to exercise each class block. The students will gain the ability to design and execute their own program with proper guidance in the weight room.

**KINESIOLOGY & ATHLETIC TRAINING****7165****0.5 CR**

This course will serve as the introduction to athletic training including emergency care, prevention, rehabilitation and assessment of athletic injuries. The course will additionally provide an overview of the principles of movement, exercise physiology, biomechanics, and motor development. Students will take part in labs and projects. There will be an emphasis on practical skills throughout the course.

*Prerequisites: Health and Biology.*

*Open to grades 11 & 12.*

**ADVANCED ATHLETIC TRAINING****7685****0.5 CR**

This course is a comprehensive course of Advanced Athletic Training. This course covers the practical application of all aspects of athletic training including the 6 domains of athletic training (Prevention, Clinical Assessment & Diagnosis, Immediate Care, Treatment Rehabilitation & Reconditioning, Organization & Administration, Professional Responsibility). The primary goal of the course is to develop and enhance students' knowledge in the field of Athletic Training. Principles and practical applications are presented and explained thoroughly in each of these fields. The course will be a hands-on course using the athletic training room extensively.

*Prerequisite: Kinesiology & Athletic Training.*

# STUDENT ENRICHMENT OPPORTUNITIES

**THE COURSES LISTED ON THIS PAGE CANNOT BE ADDED DURING SPRING COURSE SELECTION. SOME OF THESE COURSES MAY REQUIRE AN INTEREST FORM, LISTED IN THE RELATED COURSE DESCRIPTION.**

## **PEER TUTOR**

### **0.5 CR**

Students in grades 10-12 who are interested in serving as a classroom-embedded peer tutor in a subject where they have demonstrated proficiency. Tutors will help students during classroom time and also serve as a contact for students seeking outside of class help. If you are interested in a career in education, want to help out fellow Charter students, or simply want a rewarding alternative to study hall, coordinate with a teacher to serve as an Embedded Peer Tutor. Tutors may use this opportunity to earn elective credit or to serve as volunteer service hours. Please complete this form to indicate interest. Open to grades 10-12. **[Please complete this form to indicate interest.](#)**

Students must have the minimum number of credits  
*Open to grades 10-12.*

## **TEACHER ASSISTANT**

### **NO CREDIT**

This course is for students who wish to assist teachers with a course they have previously taken. Students will be tasked with helping teacher with select classroom operations, including but not limited to setting up labs, helping to prepare lessons, providing feedback, and helping teachers with various tasks. Instructions for scheduling Teacher Assistant will be given in the beginning of the school year. Students are encouraged to report Teacher Assistant as an activity on their college applications.

*Open to grades 10-12.*

**THESE COURSES CAN BE TAKEN FOR MORE THAN ONE SEMESTER.**

# UNIVERSITY OF DELAWARE EARLY COLLEGE CREDIT PROGRAM



In partnership with the University of Delaware's Early College Credit Program (ECC), CSW is thrilled to offer a number of courses which earn 3 credit hours (3 college credits). For each successfully completed ECC course, students will earn a full CSW credit. All ECC courses receive phase 6 weighting like all other CSW Dual Enrollment and AP courses, given the collegiate level curriculum. [Please view the official brochure here.](#)

## What is the Early College Credit Program?

Through the ECC Program, academically qualified high school juniors and seniors from participating Delaware high schools experience the variety of academic subjects the University of Delaware has to offer by taking introductory courses in the arts, social sciences and science *free of charge*, simultaneously earning high school and college credits.

## How are the classes conducted?

ECC courses are taught asynchronously online to high school and UD undergraduate students through Canvas (UD's learning management system). All ECC courses are designed and taught by UD faculty. Asynchronous online courses allow students to log in and complete coursework at a time that is convenient for them each week, without live or real-time video components. Even though students have flexibility when they access the courses, there are required assignments and assessments with deadlines that the professors will list on the course syllabi.

In order to be considered for these courses through this program, please complete request the courses in IC. Students requests will be subject to review by their school counselor. Students must not need ECC courses in order to graduate.

*Courses open to students in grades 11 and 12 only. Students who drop the course after the end of the school year (June 2026) will receive a "W" on their transcript for withdrawing from the course.*

## FALL, 2026

### MEDIA & SOCIETY

**6626**

#### **3 CREDIT HOURS; 1 H.S. CREDIT**

The relationship between media and culture; how media affect culture (i.e., socialization and role modeling); and exploration of new forms of mass communication.

*Fulfills the Social and Behavioral Sciences University Breadth Requirement with a grade of C- or higher. Additionally, may fulfill a Social and Behavioral Science College Breadth Requirement for some majors.*

### CHANGING THE WORLD & PUBLIC POLICY

**6636**

#### **3 CREDIT HOURS; 1 H.S. CREDIT**

"Going Green," the haves and have nots, relevant politics - all huge contemporary issues. Can you get a job AND make a difference? Public policy addresses such issues and begins with you. Examines basic policy concepts/strategies used by citizens, government and other societal institutions.

*Fulfills the Social and Behavioral Science University Breadth Requirement with a grade of C- or higher. Additionally, may fulfill a Social and Behavioral Science College Breadth Requirement for some majors.*

### INTRODUCTION TO AFRICAN AMERICAN STUDIES

**6686**

#### **3 CREDIT HOURS; 1 H.S. CREDIT**

Assesses the status of Black America in the modern technological order through an examination of the major spheres of institutional life, including employment, education, politics, criminal justice and the military.

*Fulfills the History and Cultural Change University Breadth Requirement with a grade of C- or higher. Additionally, may fulfill a History and Cultural Change College Breadth Requirement for some majors. Fulfills the University's Multicultural Requirement.*

# UNIVERSITY OF DELAWARE EARLY COLLEGE CREDIT PROGRAM



**SPRING, 2027**

## **LEADERSHIP, INTEGRITY & CHANGE**

**6706**

### **3 CREDIT HOURS; 1 H.S. CREDIT**

Introduces students to the challenges of leadership. An experiential practice-based change project will give students hands-on experience in applying the skills and practices of effective leadership to create positive change. *Fulfills the Social and Behavioral Sciences University Breadth Requirement with a grade of C- or higher. Additionally, may fulfill a Social and Behavioral Sciences College Breadth Requirement for some majors..*

## **DISABILITIES STUDIES: A MULTIDISCIPLINARY INTRODUCTION**

**6696**

### **3 CREDIT HOURS; 1 H.S. CREDIT**

Introduces the field of disability studies. Explores historical and critical perspectives on the definition and construction of disability. Examines current societal and environmental contexts for disability, including students' own relationships to disability.

*Fulfills the History and Cultural Change University Breadth Requirement with a grade of C- or higher.*

*Additionally, may fulfill a History and Cultural Change College Breadth Requirement for some majors.*

## **THE HISTORY OF NOW**

**6676**

### **3 CREDIT HOURS; 1 H.S. CREDIT**

This course explores the complexities of our contemporary world through the lens of history. The course grounds itself in the critical questions for our current times and explores a range of topics and themes. The semester opens with a meta-question; can the past teach? We then turn to a range of contemporary concerns related to food; political borders; leisure and play; the social self; climate change; rights for androids; the meaning of music; and what the past tells us about corporations and power.

*Fulfills the History and Cultural Change University Breadth Requirement with a grade of C- or higher. Additionally, may fulfill a History and Cultural Change College Breadth Requirement for some majors.*



### What is CSW Summer Session?

CSW Summer Session is a STEM-focused summer program for highly motivated students who wish to accelerate their progression through the curriculum. Accepted students will attend an intensive five weeks of instruction, labs (where applicable), and assessment. Students who successfully complete their Summer Session and all related requirements will be awarded the grade and credit. Students who complete the Summer Session course will be required to enroll in the next level course in the Fall, provided they met the criteria for advancement.

### When is Summer Session?

Monday, June 22, 2026 through Thursday, July 23, 2026.

### How are the classes conducted?

Accepted students will attend class Monday through Thursday from 8:30 a.m. - 3:00 p.m., with 30 minutes for lunch. Space is limited to 24 students per subject to allow for adequate attention from the teacher, in addition to quick grading and feedback.

### Attendance Requirements

Students are required to attend daily, as the curriculum will move quickly. Since this is a program that will yield a grade and access to more advanced courses, attendance will not be taken lightly and will directly impact the grade in the course.

### Grade Structure

Grades are contingent upon performance *and* attendance. Due to the nature of the courses (pace, feedback, length of program), attendance will directly impact the grade.

Students who receive a 66 to 85 will receive the credit for the course but will not be permitted to advance to the advanced course for which they are seeking to enroll in. Students who receive a grade of 86 or higher and show appropriate proficiency in the content area, will be awarded the credit and access to the subsequent advanced course. For example, if a student taking Summer Session Biology has perfect attendance and earns a 90, they will be permitted to take AP Biology the following school year. If that same student were to earn a 70, they would receive the grade and credit, but would not be permitted to take the advanced course for which they are seeking a recommendation.

### Admissions Requirements

Interested students are required to complete and submit this [application](#) by (Friday, March 20, 2026). The Summer Session instructional team will then send recommendation forms to the teachers students listed as their recommenders. Decisions will be shared by Friday, April 17, 2026. Accepted students should expect to pay a 50% nonrefundable deposit by Friday, May 15, 2026. Factors considered for admission include but are not limited to:

- Performance in subject-area
- Overall school performance
- Attendance
- Intent
- Academic integrity

### Is there a cost?

The cost for a Summer Session course is \$195 per week for a total of \$975; students are required to attend all five weeks. This cost covers staffing, labs, and materials; all necessary supplies will be provided for students like the regular school year. Students will be responsible for their own transportation, lunch, and snacks.

A 50% nonrefundable deposit of \$488 is due by Friday, May 15, 2026, with the balance, due by the last day of Summer Session (July 23, 2026). Accepted students with financial need should send an email to [summersession@charterschool.org](mailto:summersession@charterschool.org). Payment plans available upon request.

# CAB CALLOWAY SCHOOL OF THE ARTS COURSE OFFERINGS FOR CSW STUDENTS



If you are interested in taking one or more of the classes listed below, please fill out the form linked [HERE](#).

The following Cab Calloway courses are a sampling of classes offered to CSW students; however, registration for the course is dependent upon available space and approval. CAB and CSW will not be able to confirm a student's seat in the class(es) until schedules are finalized in August.

Courses at CCSA may require prerequisites or an art assessment (portfolio/audition) for placement. Please read through the descriptions to ensure you don't miss a deadline.

Some of the Cab courses have prerequisites (some include an audition) students must meet and for some courses students must receive a recommendation from the contact listed (PLEASE SEE EACH DESCRIPTION AND READ THEM CAREFULLY).

**[PLEASE CLICK HERE TO VIEW CAB COURSE OFFERINGS FOR CSW STUDENTS](#)**