

# CHARLOTTE COUNTRY DAY UPPER SCHOOL

2022-23

Academic Policies and Course Guide



*Through excellence in education, Charlotte Country Day School develops the potential of each student by fostering intellectual curiosity, principled character, ethical leadership, and a responsibility to serve.*

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# Graduation Requirements

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Each Upper School student earning a Charlotte Country Day School diploma will have successfully completed a minimum of 21 academic credits in a series of required courses and electives, based on individual interests and needs. Full-year courses earn 1.0 academic credits and semester courses earn 0.5 academic credits. Those 21 total credits must include the following:

## *English Language & Literature*

### **4.0 credits**

All students must be enrolled in an English course during every semester in the Upper School. Students needing additional English language support may take English as a Second Language (ESL) courses, which count toward the 4.0 required English credits.

## *Mathematics*

### **4.0 credits**

All students must be enrolled in a math course during every semester in the Upper School.

## *Sciences*

### **3.0 credits**

All students must complete Biology I in their freshman or sophomore year. Students joining Country Day after the 9<sup>th</sup> or 10<sup>th</sup> grade must fulfill the high school Biology requirement, although credit may transfer from another institution. 2.0 additional credits in lab science are required in the Upper School.

## *History & Social Studies*

### **3.0 credits**

All students must complete 9<sup>th</sup> Grade History and Modern World History, typically in their 9<sup>th</sup> and 10<sup>th</sup> grade years. United States History (whether college preparatory or AP level) is required for all graduates and is usually completed in the junior year. Successful completion of a research paper is required in each of grades 9-11. IB students typically complete their US History requirement in their senior year through the History of the Americas course.

## *Modern & Classical Languages*

### **2.0 credits**

All students must complete at least two years of consecutive study in the same language in the Upper School. Most students complete three or more years of study, with four highly recommended by most colleges and universities.

## *Fine Arts*

### **1.5 credits**

All students must complete 1.5 credits in the Fine Arts, with 0.5 credits usually completed in the Freshman year. Any combination of courses in the Visual Arts, Theatre, or Music may satisfy this requirement.

## Diploma requirements also include:

- 1) Co-curriculars: 8 activities, 0.25 credits each (2 per year) **2.0 credits, total**  
***Co-curricular activity credits may be earned in the following ways:***
  - participating (as player or manager) on a Country Day athletic team
  - completing a Country Day physical education or preseason conditioning course
  - applying for alternate PE credit for physical training done outside of school, with supervision
  - participating in a Country Day theater production (onstage or backstage)
  - completing CAS experiences (IB students only; may only be applied one time per year)
  - being employed at least 40 hours over the duration of an athletic season
- 2) A passing grade (D-/60 or above) earned in all courses during the senior year



*"I pledge my honor that I have neither  
given nor received aid on this assignment."*

The Honor Code is central to the student experience at Charlotte Country Day School. Students sign the code each year and write the Honor Pledge on all graded work. Lying, cheating, and plagiarism are all violations of the Honor Code and will result in an Honor Council hearing and disciplinary measures with academic consequences. Please see the Upper School Student Handbook for complete information on the Honor Code and Academic Honesty.

## Academic Information & Policies

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### Course Load

All students in grades 9-12 are expected to take a *full course load*, defined as six courses per semester. In certain circumstances, a student may be recommended for a *reduced course load*, and this occurs with the approval of the Division Head and the Director of Studies. Seniors in good academic standing may enroll in five courses in the spring semester of their senior year. **Seniors who wish to drop from 6 to 5 courses for the spring semester of their senior year must do so the first week of October, as indicated on the all-school calendar.** If a senior wishes to drop from 6 to 5 courses, including Independent Studies, the student must get approval from their College Counselor and notify the colleges and universities to which he or she applied or is applying.

### Homework

The purpose of homework is to prepare for the next day's class and to practice introduced skills. All younger students should expect to be assigned around 30-45 minutes of homework in each class per night, while older students can expect more. AP, Honors and IB classes typically assign a heavier homework load. This time commitment should be taken into consideration when selecting courses.

### Add/Drop

During the first seven cycle days of the first semester (for first semester and full-year courses) and at the beginning of the second semester (for second semester courses

only), Upper School students must follow the add/drop procedure to change courses. Students are **not** permitted to add a new course to their schedules after the add/drop period has ended. Dropping a course after the add/drop period has concluded will result in a WP (Withdrew Passing) or WF (Withdrew Failing) on a student's final transcript. Adding or dropping a course may require permission of the advisor, department chair, parent, college counselor, and Director of Studies.

### Level Changes

Course selections and placements are made with great care, but occasionally a student is misplaced in a course level. Students must request a level change by **the first week of October, as indicated each year on the all-school calendar.** When a student changes course levels, an adjusted grade may be carried to the new course, depending upon the volume and type of work completed.

### Course Withdrawals

Permission to withdraw from a course is granted by the Director of Studies on a case-by-case basis, and not all requests for withdrawal are granted. Withdrawals are recorded on the transcript as Withdrawn Passing (WP) or Withdrawn Failing (WF). **A student who withdraws receives no credit for the course, unless one full semester has been completed.** In general, a student may not be permitted to withdraw from a course if it means that s/he will drop below the minimum course load.

### *Grade Reporting*

The Upper School academic year consists of two semesters, with letter grades and/or comments reported at four intervals in a semester (via the Parent Portal). Formal comments for all students are posted at the midterm of Semester 1; at all other times, comments are required for any student earning an average grade of C- or below.

### *Grade Point Average and Class Rank*

The Upper School calculates a semester and cumulative GPA for each student on the semester report card and the overall transcript. The GPA calculation is used to determine *cum laude* list for graduating seniors, as well as to determine the cumulative top scholar for the graduating class. Please note that apart from these events, Country Day does not rank students, but uses quintile placement with colleges and universities to convey students' relative academic position within their class.

### *Advanced Placement Courses*

Country Day offers a rigorous college preparatory curriculum designed to prepare all students for success and achievement in college and university level study. For those students seeking additional challenge, Country Day offers many classes at the Honors and Advanced Placement level, across all academic departments. The final AP exam is the driver for the curriculum, and all AP courses are taught with the intention of students earning high marks on these exams. Should a student qualify for an Advanced Placement course, families should consider the work load in relation to other priorities in the student's life. For a complete index of courses, including AP offerings, please see the Total Index of Courses by Department.

### *International Baccalaureate Diploma Program*

The International Baccalaureate Diploma Program (IB) is a two-year program that provides 11<sup>th</sup> and 12<sup>th</sup> grade students with a well-rounded, rigorous curriculum, promotes international-mindedness, and emphasizes service learning. The IB program is best suited to students who think critically, are passionate about learning, and are committed to personal growth both inside and outside of the classroom. Students accepted into the IB program are expected to complete the necessary level of high-quality work to earn the IB diploma in addition to their Country Day diploma. For complete information on IB course offerings, please see the IB section of this course catalog.

### *Course Selection*

Students and parents work with the student's advisor in March and April of each school year to determine a challenging but reasonable course load for each student in the next year. Honors, AP, and IB classes have specific qualifying requirements that *must* be met for registration and must be maintained for the remainder of the school year. For complete details pertaining to Honors and AP qualification, please see the AP and Honors Qualifying sheet in the Parent Portal. Please note that every effort is made to place students in their chosen courses, but in some situations two or more preferred courses conflict in the schedule and the students will not be able to enroll in both.

### *Independent Studies*

Independent Studies are an opportunity for students to pursue specialized topics not offered within the regular curriculum. Interested students *in good academic standing* may plan an Independent Study with a faculty member and submit a proposal for approval to the Director of Studies. Students are limited to one Independent Study credit per semester, and with permission, the Independent Study may replace a sixth course. In general, an Independent Study may not replace a graduation requirement. Completed Proposals for Independent Studies must be submitted to the Director of Studies *by the end of the final exam period in the preceding semester*. Late applications may be deferred to the following semester or academic year. The required proposal form can be found on the Student Life page of Teams or through a student's advisor. **Independent Studies are graded as Credit/No Credit (CR/NC) based on criteria agreed upon between student and supervisor, and a final presentation of work to the Academic Council.**

### *Off-Campus Academic Opportunities*

Country Day Upper School students have multiple opportunities to travel and study off campus and abroad, either through Country Day sponsored programs or affiliate programs. For more information on these programs, please see page 38 of this course guide.

### *Summer Academic Programs*

Country Day does not offer summer courses for academic credit. Students taking courses at other institutions may petition the Country Day department chair for acceleration to the next level, and the transcript for the additional coursework can be included in their college application. Only courses taken at Country Day appear on the Country Day transcript and factor into the GPA.

## *Educational Resource Program*

The Educational Resource Program (ERP) in the Upper School provides academic coaching for students within the academic day. These pre-scheduled appointments are available during school hours for a per-session fee. Parents can indicate interest in this program by completing the form available in the Parent Portal. Every effort is made to match a student's session to a free period, but the Flex and lunch period may also be used. As we prepare our Upper School students for college life, we balance content tutoring with a coaching approach to problem-solving. *Students should make every effort to meet with their classroom teachers first for primary support.*

## *Approved Classroom Accommodations*

Country Day strives to meet the needs of its students. Students with a documented learning diagnosis (i.e., Dyslexia) may be recommended for certain accommodations. Not all psychologist recommendations

can be supported, however. For more information on approved classroom accommodations, please contact the Upper School ERP Director or visit the ERP page in the Parent Portal.

## *Grading Options for ESL students*

In order to manage academic pressure while they are developing their language skills and adjusting to Country Day's expectations, English as a Second Language students may opt to take certain courses as Credit/No credit or Audit, rather than for a letter grade. Students must be enrolled in at least one ESL course to exercise this option. The Director of ESL and the Director of Studies will make this recommendation for some ESL students, and students should understand that Credit/No Credit and Audit courses do not impact GPA. If an ESL student expects to matriculate at a college or university in the United States, this option may not be recommended.

# A Note on Course Descriptions, Grading Scale, Qualifying Grades

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## Course Descriptions

All academic courses in this guide are designated as full year, first semester and/or second semester. Courses with a necessary prerequisite, co-requisite, or qualification are listed with those requirements noted. If a course is listed without a prerequisite, it is reasonable to assume that there is open enrollment for that class.

## Qualifying Grades for Advanced Courses

At the midterm mark of the second semester, each department will determine respective student eligibility for Honors and Advanced Placement courses. Eligibility is based on first semester performance and second semester performance at that point in the year, with qualifying grades often in the A or A- range. Once students have qualified for an advanced course in the spring, they must maintain the qualifying grades for the remainder of the academic year to enroll in the advanced course for the following academic year. Students who have earned the qualifying grade by the end of the academic year should reach out to their teachers to discuss the possibility of moving to the honors or AP course for which they have now qualified.

For information about eligibility for the IB Diploma program, please turn to the IB section in this catalogue.

## Grading Scale

98-100	A+
93-97	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
below 60	F/no credit

# Total Index of Courses by Department

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## **English**

### *Full Year Courses:*

English 9: Foundations in English I  
English 10: Foundations in English II  
English 11: American Literature  
IB English 11  
AP English 11: Language & Composition  
AP English 12: Literature & Composition  
IB English 12

### *Semester Courses:*

English 12 Seminars including  
Collaborative Storytelling  
Creative Writing  
Classical Mythology  
Philosophy, Faith, and Fiction  
Writers Who Paint

## **English as a Second Language**

### *Full Year Courses:*

Intermediate ESL  
Advanced ESL  
ESL American History  
ESL World History

## **Mathematics**

### *Full Year Courses:*

Algebra I  
Geometry  
Honors Geometry  
Algebra II  
Honors Algebra II  
Honors Algebra II/Precalculus  
Algebra III/Trigonometry  
Dynamic Math  
Pre-calculus  
Honors Pre-calculus  
Introduction to Calculus & Statistics  
AP Statistics  
Advanced AP Statistics with R and R Studio  
AP Calculus AB  
AP Calculus BC  
IB Applications SL  
IB Analysis SL  
IB Analysis HL

### *Mathematics Semester Courses*

Mathematical Analysis (Fall)  
Advanced Probability Theory (Spring)

## **Sciences**

### *Life Science Full Year Courses:*

Inquiries in Biological and Physical Science  
Biology I  
AP Biology  
IB Biology (SL)  
AP Environmental Science

### *Life Science Semester Courses:*

Environmental Issues  
Marine Biology  
Human Anatomy I and II  
IB Biology (HL)  
Bioethics

### *Physical Science Full Year Courses:*

Chemistry I  
Honors Chemistry  
AP Chemistry  
IB Chemistry (SL)  
Physics I  
Honors Physics  
AP Physics

### *Physical Science Semester Courses:*

Astronomy: Solar System  
Astronomy: Cosmology  
Organic Chemistry  
Honors Principles of Engineering  
IB Chemistry (HL)

### *Science Research:*

Physical Computational  
Biochemistry

## **History & Social Studies**

### *Full Year Courses:*

Ninth Grade History  
Modern World History  
Honors Modern World History  
IB World History  
United States History  
AP United States History  
IB History of the Americas  
AP Psychology  
IB Psychology  
AP Human Geography  
IB Information Technology  
in a Global Society  
AP European History  
AP US/Comparative Government & Politics

### *Semester Courses:*

Adolescent Brains & Behavior  
African American History  
Education for Social Justice  
Latin American and Haitian Studies  
Principles of Economics  
IB Theory of Knowledge

## **Modern & Classical Languages**

### *Full Year Courses:*

Honors Chinese Language and Culture I  
Chinese III, IV  
Honors Chinese III, IV  
IB Chinese  
French I, II, III, IV, V  
Honors French II, III, IV  
AP French Language & Culture  
IB French HL  
Spanish I, II, III, IV, V  
Honors Spanish II, III, IV  
Honors Spanish for Heritage Speakers  
AP Spanish Language & Culture  
IB Spanish HL  
Latin I, II, IIDL, III, IV, V,  
Honors Latin II, III, IV  
AP Latin  
IB Latin

## **Fine Arts**

### *Choral Music Full Year Courses:*

Chamber Choir  
Honors Chamber Choir  
Concert Choir

### *Choral Music Semester Courses:*

A Cappella Ensemble

### *Instrumental Music Full Year Courses:*

Symphonic (formerly Concert) Band  
Honors Symphonic Band  
String Orchestra  
Honors String Orchestra

### *Music Theory & Production Semester Courses:*

Digital Music Studio

### *Theatre Arts Semester Courses*

Production Concepts  
Acting/Directing I  
Acting/Directing II  
Theater Workshop  
Improvisation

### *Visual Arts Full Year Course:*

Yearbook

### *Visual Arts Semester Courses:*

2-D Art I, II, III, IV  
Design I, II, III, IV  
Digital Animation and Film Production  
Sculpture I, II, III, IV  
Special Topics in Visual Arts

### *Full Year AP and IB Art Courses:*

AP Music Theory  
IB Music I & II (SL)  
AP Studio Art  
IB Art I & II (SL, HL)  
AP Studio: Design/ Photography  
AP Studio: Sculpture  
AP Art History  
IB Theater Arts (SL, HL)

## **Technology & Computer Science**

### *Full Year Courses:*

AP Computer Science A

### *Semester Courses:*

Exploring Computer Science  
Advanced Topics in Computer Science

## **Non-Departmental Courses**

### *Semester Courses:*

Freshmen Seminar  
Public Speaking  
The New Journalism: Podcasting  
Entrepreneurship

## **Physical Education**

### *Semester Courses:*

Cardio/Core  
Lifeguarding: ARC Certification  
Strength Training



## English Language & Literature

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The Upper School English curriculum inspires students to understand the power of literature – to instruct, to challenge, to delight, and to transform us. Through the daily practice of reading, writing, reflecting, and discussing, students connect with literature, each other, and the world. We believe that thoughtful study of writing and literature aids the development and articulation of a student's distinct self as well as a deeper understanding of others. In our classrooms, students will question, explore, and build their knowledge of themselves and the world around them.

English 9 and English 10 provide a common foundation for students through the study of a variety of modes of writing and the primary genres of literature – poetry, prose, and drama. In the 11<sup>th</sup> grade, students pursue one of three paths: English 11 and 12, Advanced Placement, or International Baccalaureate. Qualifying students in AP 11 or English 11 may continue to AP 12 or choose from the English 12 half-year courses. Students commencing IB courses in their junior year are expected to fulfill a two-year IB commitment.

### *ENGLISH 9: Foundations in English (full year)*

This course, the first in a two-year study of the foundations of English, introduces students to the advanced literary study required in the courses of the Upper School English Department. The beginning of the semester focuses on helping students build an understanding of and proficiency with developing and presenting arguments. Later, students use in-depth examinations of poetry, short stories, and longer texts to explore and present their personal and academic views, ideas, and opinions through a variety of exercises. In addition to literary study, students develop speaking and oral presentation skills through a variety of activities including the annual Ninth Grade Poem Off. The year culminates in a portfolio of examples of the students' best revised written work.

### *ENGLISH 10: Foundations in English II: The Individual in Society (full year)*

English 10 is the second year of Country Day's Foundations of English course. Students continue their study of classic and modern texts with a specific look at how literature reflects humans' desire to understand themselves in relation to their world. Students study texts during the year to inform their perspectives on and responses to literature and demonstrate their knowledge of a work through writing in different genres. Course literature includes *Antigone*, *Macbeth*, *The Metamorphosis*, *Frankenstein*, and *Persepolis* as well as major poetic forms. Analysis and argumentative thesis development are at the forefront of all writing projects, and a focus is placed on MLA citation for documentation of sources. The year culminates in a multi-genre portfolio of original student work.

### *ENGLISH 11: American Literature (full year)*

English 11, a selected survey of American Literature, enables juniors to apply knowledge of genre and authorship gleaned in English 9 and English 10 to specifically American themes, questions, and voices. Through close reading, careful textual analysis, writing in various rhetorical modes, and small group discussions, students in their junior year develop specific understandings of American culture and expression,

including the major movements of the Enlightenment, Romanticism, and Modernism. As a culminating assignment, students write, revise, and edit an autobiographical portfolio of considerable length and variety.

#### **AP ENGLISH 11:**

##### ***Language & Composition (full year)***

##### ***Prerequisites: grade qualification***

AP English 11 is an accelerated version of English 11 (American Literature), emphasizing the same skills noted in the English 11 description, but adding the specific exercise of academic research. In the first semester, students independently explore the work of an American author and write a “causal” argument with MLA citations. In addition, AP students actively prepare for the Language and Composition exam by engaging in the study of rhetorical and literary strategies in non-fiction, poetry, and fiction. Timed essays and practice multiple-choice assessments are frequently administered throughout the year. Students are expected to sit the AP Language and Composition Exam in May. Like their peers in other 11th grade English courses, spring semester AP 11 students write, revise, and edit an autobiographical portfolio in the spring.

#### **IB ENGLISH 11 (HL) (full year)**

Please see the IB section of the course catalog for more information.

#### **AP ENGLISH 12: Literature & Composition (full year)**

##### ***Prerequisites: grade qualification in AP English 11 or grade qualification in English***

This intensive class explores expository, analytical, and argumentative writing with an aim towards an advanced understanding of themes, stylistic elements, and literary features in literature. Qualified students continue their

critical reading of canonical texts and actively prepare for the Literature and Composition test in May. In addition, students study a survey of poetry from the 1600’s to the present. Students are expected to sit the AP Literature and Composition Exam in May.

#### **IB ENGLISH 12 (HL) (full year)**

Please see the IB section of the course catalog for more information.

#### **ENGLISH 12 (first and second semesters; offerings vary)**

English 12 consists of semester-long courses varying in theme, genre, period, or critical approach. Each unique course requires students to read texts and to focus on how authors use purpose and audience to guide their writing. Students in English 12 are expected to respond to literary criticism, to write analytically and personally about literature, to complete research on a given topic and present their findings through oral presentations, and to collaborate by creating and problem-solving in group settings. Most courses incorporate film study, media, and other interdisciplinary subject matter. English 12 course offerings are a function of faculty availability and interest. Some English 12 courses that have been offered in the past include:

*Collaborative Storytelling; Creative Writing; Classical Mythology; Philosophy, Faith, and Fiction; and Writers Who Paint.*

## English as a Second Language (ESL)

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Country Day offers English as a Second Language support for students who are still developing their English skills. ESL courses (with the exception of TOEFL Prep, when offered) can substitute for credits in the English or History departments, as appropriate. ESL students at a more advanced level frequently elect to enroll in a regular English course in addition to their ESL class(es) (Audit or Credit/No credit).

### *Intermediate ESL (full year)*

Students learn to communicate in English as they practice speaking, listening, reading, and writing skills. Basic grammatical structures are introduced. Students also develop an understanding of American culture through discussion, reading, and writing about cultural issues. Students are taught all of the English verb tenses as well as other intermediate level grammatical skills. ***This course may be repeated as needed for mastery.***

### *Advanced ESL (full year)*

High-intermediate to low-advanced level reading, writing, and grammatical skills are taught in this course. Students

read a short novel, newspaper articles, short stories, and learn to write analytical essays and other types of essays. The course also includes a comprehensive review of English grammar and composition. Vocabulary building is emphasized throughout the year to enhance reading comprehension and written expression. ***This course may be repeated as needed for mastery.***

### *ESL American History (full year) Please note that this course is offered in alternate years to ESL World History.*

This course is designed for Upper School students whose proficiency in English requires practice in reading, writing, and speaking techniques. The goals of the course are to develop English proficiency, to provide an overview of the major events and figures in American history, and to encourage students to apply learning strategies and skills to their study of a second language. This course may substitute for the required American History course for ESL students.

### *ESL World History (full year) Please note this course is offered in alternate years to ESL US History.*

This course is designed for Upper School students whose proficiency in English requires practice in reading, writing, and speaking techniques. Additionally, research skills are taught along with frequent essays and papers. The course allows students to receive an overview of World History with an emphasis on European History. The course meets the World History requirement for ESL students.

The Mathematics curriculum at Country Day promotes the optimal mathematical development of each student. Through innovative, challenging, and differentiated instruction we seek to develop student's **problem-solving & critical thinking skills** and foster an appreciation for the power and beauty of mathematics. Students are encouraged to question, think, reason, compute, and communicate mathematically to solve **real-world problems** with enthusiasm, confidence, and creativity.

### **ALGEBRA I (full year)**

Students use graphical, symbolic, tabular, and numerical representations as they solve problems involving unknown quantities. Linear equations and linear relationships are examined in great detail, and conceptual understanding is emphasized throughout the course. The graphing calculator is utilized and required. Students are introduced to quadratic equations, factoring, and irrational numbers.

### **GEOMETRY (full year)**

**Prerequisite:** *Algebra I*

In this course, students will study parallelism, congruence, similarity, polygons, circles, area, volume, and transformations. Particular emphasis is placed on inductive and deductive reasoning, logic, and proof. Students will use *Geometer's Sketchpad* to explore relationships and formulate conjectures. Concepts of Algebra I are reinforced, including linear equations, graphing, and solving systems. Students are introduced to right triangle trigonometry and counting principles. Algebraic applications of geometry and problem solving are greatly emphasized.

### **HONORS GEOMETRY (full year)**

**Prerequisite:** *Algebra I and qualification*

In this course, students will study all of the topics in Geometry but with more theory and in greater depth. A mastery of many algebraic skills will be necessary for students to succeed and meet the demands of this

rigorous course. Particular emphasis is placed on inductive and deductive reasoning, logic, proof, and independent problem-solving. Students will use *Geometer's Sketchpad* to explore relationships and formulate conjecture.

### **ALGEBRA II (full year)**

**Prerequisite:** *Geometry*

Algebra II is an extension of Algebra I with new topics including transformations, higher-order polynomials, exponential, and logarithmic functions. Emphasis is placed on describing relations in multiple ways, developing problem-solving skills, and communicating understanding in verbal and written formats. Students investigate concepts and solve both with and without the use of the graphing calculator.

### **HONORS ALGEBRA II (full year)**

**Prerequisite:** *Geometry or Honors Geometry and qualification*

Includes much of the same material as Algebra II plus a unit on trigonometry and rational functions, but with more theory and in greater depth. Significant emphasis is placed on communication (verbal, partner and written) as well as on applications and problem-solving.

### **HONORS ALGEBRA II AND PRECALCULUS (full year)**

**Prerequisite:** *Honors Geometry, and recommendation of department*

This course will cover the topics in Honors Algebra II and Honors Precalculus. The pace will be greater and independent thinking and reasoning will be emphasized throughout the course. Students will be expected to investigate concepts and apply their knowledge in a variety of ways. Technology will be used extensively, and students will be required to explore many ideas outside of class time.

### **ALGEBRA III/TRIGONOMETRY (full year)**

**Prerequisite:** *Algebra II*

This alternative to Pre-calculus is a comprehensive review and extension of Algebra II topics with a study of functions, their graphs and applications. Topics covered include matrices, trigonometry, conics, sequences and series, probability, and statistics. Much of the course content is similar to that of Pre-calculus, but material is presented at a slower pace. *Please note that students in Algebra III/Trigonometry are not eligible to qualify for AP Calculus.*



### **PRE-CALCULUS (full year)**

#### **Prerequisite: Algebra II**

This course is a study of functions and graphs including trigonometry, higher order polynomials, exponents, logarithms, analytic geometry, sequences and series, and transformations, also including some principles of probability. Students continuously seek understanding by communicating through use of words, tables, graphs and Algebra. *Please note: students who have completed Algebra III/Trigonometry are not eligible to enroll in Pre-calculus. Students should continue to Intro to Calculus & Statistics (below).*

### **HONORS PRE-CALCULUS (full year)**

#### **Prerequisite: Algebra II or Honors Algebra II and qualification**

This course provides an in-depth examination of polynomial, exponential, logarithmic, power, rational, and trigonometric functions (graphs, equations, and applications) in preparation for AP Calculus. Students communicate their understanding in verbal and written formats. In addition, students thoroughly explore sequences and series, probability, counting methods, and polar graphing, and begin the study of limits, derivatives, and continuity.

### **INTRO TO CALCULUS & STATISTICS (full year)**

#### **Prerequisite: Pre-calculus or Algebra III/Trigonometry**

The first semester of this course is devoted to developing an understanding of elementary statistics – graphing and describing data, using data to draw conclusions, and gathering data through surveys and experiments. Students also study normal distributions in depth, including standardizing normal variables and calculating probabilities. In the second semester, students analyze selected topics from Differential Calculus, including limits, continuity, differentiability, and finding and applying derivatives. The final portion of the course focuses on financial mathematics such as investments, exponential models of growth for compound interest, and Business Calculus.

### **DYNAMIC MATH (full year)**

#### **Prerequisite: Algebra III/Trigonometry or Precalculus**

Mathematical methods can be applied to solve problems in a variety of fields, from biology to computer science to business. This course focuses on applied math problem-solving by utilizing topics such as matrices, sequences and series, trigonometry, and data analysis. Through project-based learning, students will research and learn about applications of mathematics and statistics in exercise science, dietetics, and kinesiology. Data collection methods and statistical analyses will be employed in the

context of decision science and optimization. While the brain navigates through the math, the body will not remain at rest. The student's work through each unit will culminate in a mathematically-supported fitness program that will be executed during a class period. This course is guaranteed to grow your brain, appreciation for math, and physical and mental wellness! **The course is open to students in grade 12.**

## **Advanced Math Options**

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### **AP STATISTICS (full year)**

#### **Prerequisite: Pre-calculus or Honors Pre-calculus and qualification**

A secondary school equivalent of a one-semester introductory, non-Calculus based college course in Statistics. Four broad conceptual themes emerge in the course: (1) Exploring Data: observing patterns and departures from patterns, (2) Planning a Study: deciding what and how to measure, (3) Anticipating Patterns in Advance: producing models using probability and simulation, and (4) Statistical Inference: confirming models. Students are expected to sit the AP Statistics exam at the end of the course.

### **ADVANCED AP STATISTICS with R and R Studio (full year)**

#### **Prerequisite or Corequisite: AP Calculus BC**

R is a programming language and statistics software environment used for all aspects of data analysis. RStudio® is a free, open-source integrated development environment that facilitates the use of R. Widely used in higher education, science, government, and industry, these tools easily manipulate and visualize complex data. Advanced AP Statistics with R and Rstudio® embeds the standard AP Statistics curriculum in these statistical software packages. Students interested in this course should have strong analytic skills, the ability to reason conceptually, and be comfortable in a rapid-paced learning environment.

### **AP CALCULUS "AB" (full year)**

#### **Prerequisite: Pre-calculus or Honors Pre-calculus and qualification**

A college-level study that begins with limits and continuity and continues with a study of derivatives and their applications, integration and some applications of definite integrals, as well as a limited number of techniques of integration. A year-long course designed to prepare the student to take the AP Calculus AB exam. *Students who*

take AP Calculus (AB) prior to their senior year may not take AP Calculus "BC" in any subsequent year. Students are expected to sit the AP Calculus exam at the end of the course.

### **AP CALCULUS "BC" (full year)**

**Prerequisite:** Honors Pre-calculus and qualification

This college-level study begins with the applications of derivatives and continues with integrals and their applications, techniques of integration, infinite series, the calculus of parametric and polar functions, as well as the calculus of two-dimensional vectors. The course content is approximately equivalent to the first two semesters of college-level Calculus. Students are expected to sit the AP Calculus exam at the end of the course.

### **MATHEMATICAL ANALYSIS (fall semester)**

**Prerequisite:** BC Calculus or currently enrolled in BC Calculus

This course introduces advanced students to the rigors of mathematical proof and logic. The course content covers countable and uncountable sets, properties of  $\mathbb{R}^n$ , convergence of sequences and series, limits and their properties, continuous functions, and a careful development of the foundations for differentiation and integration.

### **PROBABILITY THEORY (spring semester)**

**Prerequisite:** BC Calculus or currently enrolled in BC Calculus

This course is designed for students who are curious to explore research topics in advanced mathematics. The course content covers measure theory, convergence of distributions and probability measures. We will explore foundational theorems of probability theory including the Borel-Cantelli Lemma, Fubini's theorem and several important limit theorems. Students will be required to

complete a significant research project as part of this course.

### **IB APPLICATIONS SL (full year, IB Students Only)**

Please see the IB section of the course catalog for more information.

### **IB ANALYSIS SL (full year, IB Students Only)**

Please see the IB section of the course catalog for more information.

### **IB ANALYSIS HL (full year, IB students only)**

Please see the IB section of the course catalog for more information.

### **LINEAR ALGEBRA (fall semester)**

Please note that this course is offered in alternate years and will not be offered in the 2022-23 academic year.

**Prerequisite:** AP Calculus (AB or BC) and qualification

This course covers an exhaustive study of systems of equations, determinants, vector spaces, linear transformations, orthogonality and eigen values. Applications will be emphasized, and technology will be utilized throughout the course.

### **MULTIVARIABLE CALCULUS (spring semester)**

Please note that this course is offered in alternate years and will not be offered in the 2022-23 academic year.

**Prerequisite:** BC Calculus or currently enrolled in BC Calculus

This course will include a study of vectors, motion along a curve, partial derivatives, multiple integrals, vector calculus and the divergence, gradient and curl of a vector field. Students will be expected to apply knowledge obtained from AB or BC Calculus when solving or evaluating problems and expressions. Much of the focus of the course will be in three-dimensional space.

The Science Department at Country Day aims to inspire a life-long love for learning by **fostering curiosity and encouraging positive risk-taking**. The expectations will be to develop critical thinking skills with an appreciation of and respect for an ever-changing world of science. Through a **creative, open-ended, multi-sensory, interdisciplinary curriculum**, students become scientifically literate stewards of the environment and humankind.

**Biology I** is the core class in the Country Day science curriculum, required of all current students and transfers who have not completed a comprehensive lab course in high school biology. This course develops the skills and lab experience necessary to move on in the sciences. Most students move on to Chemistry and Physics in their sophomore and junior years.

Current students entering 9<sup>th</sup> grade and students new to the school have the option to take **Inquiries in Biological and Physical Science** before taking **Biology 1**. This qualifies as one of the three required years of science for graduation.

The foundations of **Biology I** and **Chemistry I** give students the necessary fundamentals to take on upper level AP and IB sciences. In addition, the science department offers a rich array of electives in the life sciences and physical sciences so that students can pursue their unique interests.

## I. Life Sciences

### *INQUIRIES IN BIOLOGICAL AND PHYSICAL SCIENCE (full year)*

This foundational class will introduce a range of topics from life and physical sciences while emphasizing critical reading and thinking, the scientific method, and lab skills. It is designed to be taken before Biology I and will prepare students for that class and the physical science classes to follow it. Students will complete a broad lab curriculum that covers aspects of measurement, data recording and processing, along with analysis of results and drawing conclusions. Topics studied will include cell biology, ecology, earth science, conceptual chemistry, chemical reactions, materials science, and conceptual physics.

### *BIOLOGY I (full year)*

#### **Required for any subsequent science course**

A conceptual and lab-based survey of basic Biology with emphasis on the scientific method, biochemistry, cell structure and function, genetics, biotechnology, human systems, and evolution. Rather than focusing on a body of facts, the course uses broad themes and questions to guide student learning by drawing connections between the different aspects of Biology. Intentional development of study and laboratory skills is integral to the course.

### *AP BIOLOGY (full year)*

#### **Prerequisites: Biology I, Chemistry I or Honors Chemistry I, and qualification**

This college-level survey course includes the study of cellular and molecular Biology, signal transduction, Biotechnology, Genetics, Evolution, diversity of living things, animal form and function, populations, and ecology equivalent to a two-semester introductory level Biology course. The course explores science as a process, uses personal experience in scientific inquiry, and applies biological knowledge and critical thinking to environmental and social concerns. The goal of the course is to develop advanced inquiry and reasoning skills, application of mathematical routines, and connection of concepts in and across domains structured around four big ideas. Extended lab time is required, and students are expected to sit the AP Biology exam.

### *IB BIOLOGY SL (full year); IB BIOLOGY HL (half year)*

Please see the IB section of the course catalog for more information.

### **AP ENVIRONMENTAL SCIENCE (full year)**

**Prerequisites:** *Biology I, Chemistry I or Honors Chemistry I and qualification*

AP Environmental Science is a lab-based, college-level course designed to provide students with the scientific principles, concepts, and methodologies to understand the interrelatedness of the natural world. In addition, students are taught to identify, analyze, and evaluate environmental issues and their potential risks and solutions, and to become critical thinkers and problem solvers. Topics include: energy flow and matter cycling in ecosystems, basic ecology, human population dynamics, resource use, energy issues, food/soil resources, water resources, biodiversity loss, air/water pollution detection and management, eutrophication, acid rain, ozone depletion, and climate change. Participation in a research-driven fall semester Saturday field trip within Charlotte, and a spring field trip to Charleston, is mandatory. Extended lab time is required and it is expected that students will sit the AP Environmental Science exam. **The course is open to grades 10-12.**

### **ENVIRONMENTAL ISSUES (first semester)**

**Prerequisite:** *Biology I*

This semester course provides a survey of contemporary environmental issues, such as climate change, endangered species, food production, and others. Students learn about the underlying science behind these issues as well as explore different perspectives on them. The course draws from the Humanities, Social Sciences, and Natural Sciences. Debate over issues takes place in class discussions and also on tests and lab reports. As a culmination to the course, teams of students will present on an issue of their choice and argue from different perspectives. **The course is open to grades 10-12.**

**PRACTICAL BIOLOGY (second semester)** Please note: this course is offered in alternate years and is not available in 2022-2023. It will be offered next in 2023-24

**Prerequisite:** *Biology I, concurrent enrollment in Algebra II or higher*

Practical Biology will focus on what students often enjoy most about their science classes: performing experiments. In this course, students will learn new techniques and reinforce those learned in prior biology courses. Areas of investigation will include plants, ecology, cellular biology, genetics, biotechnology, and physiology. Students will learn both the basic biology and lab techniques associated with each of the above topics. Field trips will occur during the plants and ecology units to sites near the school or to local parks. The course will

culminate in a student-designed investigation, rather than having a final exam. **The course is open to grades 10-12.**

### **MARINE BIOLOGY (second semester)**

**Prerequisite:** *Biology I*

This semester course is a survey of the basic concepts of Marine Biology. Topics include the interdependence of organisms to each other and to their environments, properties of water, the physical and chemical dynamics of marine environments, food webs and trophic dynamics, marine plants, marine invertebrates and vertebrates, adaptation of marine organisms, and a survey of selected marine ecosystems. Students study these topics through readings and discussions, hands-on activities, and participation in a mandatory overnight field trip to Charleston. **The course is open to grades 10-12.**

**BIOETHICS (second semester)** Please note: this course is offered in alternate years and is available in 2022-2023

**Prerequisite:** *Biology I*

The semester course examines ethical issues surrounding controversial applications of biotechnology. Major topics will include genetic modification, genetic screening, stem cells, and cloning. Students will be challenged to consider the ethical implications of these topics while demonstrating an understanding of the science behind the issues. To accomplish this, students will participate actively in class discussions, carry out complex labs with accuracy and efficiency, debate ethical topics and scenarios, compose detailed lab reports, and write in-class essays. Rather than taking a final exam, students will complete a final project of their choosing on a bioethical issue. **The course is open to grades 10-12.**

### **HUMAN ANATOMY 1 (first semester)**

**Prerequisite:** *Biology I*

This semester course examines the structure and function of the human body. All the major organ systems of the body are introduced along with an in-depth study of the skeletal and muscular systems. Through various case studies, class activities, including an internal cat dissection of the muscles, the students can enhance their appreciation of these systems as each function both individually and collectively in the human body. With the basic knowledge of the body's structure and function, students also begin to understand the basic components involved in achieving wellness and optimum performance. **The course is open to grades 10-12.**



### **HUMAN ANATOMY 2 (second semester)**

*Prerequisite: Biology I (required); Human Anatomy (recommended but not required)*

This semester course is offered to students who are interested in deeper study into the structure and function of the internal systems of the human body. Students will participate in lab activities, including an internal dissection of the cat, that are designed to further enhance their understanding and appreciation of how functions both individually and collectively in the human body. The systems covered are nervous, blood, cardiovascular, respiratory, and digestive. With the basic knowledge of the body's structure and function, students continue to understand the basic components involved in achieving wellness and optimum performance as well as integrating their knowledge of case studies. Furthermore, students will gain insights into the prevention, care, and treatment of a variety of medical conditions. **The course is open to grades 10-12.**

## **II. Physical Sciences**

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### **CHEMISTRY I (full year)**

*Prerequisites: Biology I and Algebra II or higher Math required concurrently*

This course is designed to develop a conceptual understanding of the physical and chemical properties of matter and energy and relies extensively on problem solving (including algebraic manipulation) and laboratory experiences. Concepts central to the course include atomic theory, the mole concept, chemical reactions and reactivity, quantitative analysis of chemical changes, chemical bonding and the properties of substances, chemical kinetics and thermodynamics, and chemical equilibrium.

### **HONORS CHEMISTRY I (full year)**

*Prerequisites: Biology I, Algebra II or higher Math required concurrently; qualification based on current science and math grades*

This course will cover the same topics as Chemistry I (in addition to Nuclear Chemistry) but in more depth and at a faster pace. An emphasis on problem-solving, analysis, and applications of concepts is stressed through homework, inquiry projects, and quantitative laboratory assignments. Development of investigative techniques and the ability to interpret results using math skills and laboratory experiments are integral parts of the curriculum.

### **AP CHEMISTRY (full year)**

*Prerequisites: Chemistry I or Honors Chemistry I and qualification; Pre-calculus or higher Math required concurrently*

Through this college-level course, students will develop an in-depth understanding of topics which include the structure of matter and properties of matter, chemical reactions and stoichiometry, thermodynamics, chemical kinetics and equilibrium, the chemistry of acids and bases, fundamental quantum mechanics, periodicity, and chemical bonding and properties. Principles are extensively applied both through classroom demonstrations and laboratory work, allowing students to develop competency in the typical laboratory skills of a college course. This course should contribute to the development of the ability to think clearly and to express ideas with clarity and logic. Extended lab time is required. Students are expected to sit the AP Chemistry exam.

### **IB CHEMISTRY SL (full year); IB CHEMISTRY HL (half year)**

Please see the IB section of the course catalog for more information.

### **PHYSICS I (full year)**

*Prerequisite: Completion of Algebra III, or minimum Precalculus concurrently*

This course stresses a conceptual understanding and application of the fundamental principles of Physics and emphasizes the illustration of those principles to mathematical problems and questions that are relevant to students' daily lives and interests. Topics studied include motion, forces, momentum, energy, waves and wave motion, sound, light and optics, and electricity and magnetism. The course is based on an inquiry through labs and mathematical application of topics.

### **HONORS PHYSICS I (full year)**

*Prerequisites: Qualification and Pre-calculus or higher Math required concurrently*

Honors Physics provides a more analytical approach to the concepts studied in Physics I for the student who enjoys mathematical applications. This course includes laboratory activities, problem-solving exercises, and student projects.

### **AP PHYSICS (full year)**

*Prerequisites: Physics I OR Honors Physics I, AB/IB Calculus or higher Math required concurrently, AND qualification*

AP Physics is a second-year physics course for the student interested in preparing for the Level C Advanced Placement examinations in Mechanics and in Electricity and Magnetism. The course includes laboratory activities, problem-solving exercises, and independent student

projects. Students are expected to sit the AP Physics exam.

#### **ASTRONOMY: SOLAR SYSTEM (first semester)**

**Prerequisites:** Chemistry I/Honors Chemistry AND Algebra II (any level, previous or concurrent)

This course is designed to introduce students to Astronomy and the extraordinary space beyond our atmosphere. Students gain basic knowledge of the history and position of the constellations, celestial navigation, telescope design and function, electromagnetic radiation, the planets of our solar system, the Sun and the Moon, comets, meteors, and asteroids. Rather than a final exam, students complete a significant project. The course is **open to grades 11-12**.

#### **ASTRONOMY: COSMOLOGY (second semester)**

**Prerequisites:** Chemistry I/Honors Chemistry I AND Algebra II (any level, previous or concurrent)

This course is designed to introduce (*or continue*) students to Astronomy and the extraordinary space beyond our atmosphere. The course requires more application of mathematical concepts than the first semester Astronomy course. Students gain basic knowledge of the composition and evolution of stars, classification and formation of galaxies, the structure of the universe, global extinction, and the personalities, politics, and timeline of manned spaceflight. Rather than a final exam, students complete a significant project. The course is **open to grades 11-12**.

#### **ORGANIC CHEMISTRY (first semester)**

**Prerequisite:** AP Chemistry/IB Chemistry and qualification

This semester course replicates a semester of undergraduate Organic Chemistry – the study of the chemistry of the element carbon. This rigorous course offers students with a rare opportunity: to develop the skills needed to excel in the college course that is dreaded by so many. Topics included range over structure, reactivity and synthesis of organic molecules through to identification of organic compounds from spectra. There is a full synthetic lab component to the course and extensive molecular modeling, both hands-on and computerized. A synoptic exam of the concepts covered is taken at the end of the semester.

#### **HONORS PRINCIPLES of ENGINEERING (first semester)**

**Prerequisite:** Physics I OR Honors Physics and qualification

This Honors level course focuses on three major branches of Engineering: Structural Mechanics, Material Science, and Digital Electronics. Students will be introduced to the principles of particle and rigid body mechanics with engineering applications; force and momentum (rotation) systems and resultants; equilibrium of particles and rigid bodies; material effects, and friction. Students will also learn about the behavior of materials based upon composition and therefore their applications; properties of concretes and metal alloys that will be crafted in the classroom setting; and basic principles of digital electronics based upon physical coding. Projects will include the construction of electronic devices from simple (digital keyboard) to complex (wirelessly controlled robotic hand); and the concept of using technology to “build something that actually does something.” **Open to grades 11-12.**

### **III. Science Research**

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#### **PHYSICAL COMPUTATIONAL BIOCHEMISTRY (second semester)**

**Prerequisites:** Organic Chemistry or previous or concurrent AP Physics, AP Computer Science, AP Biology or IB HL Biology or HL Chemistry (CR/NC)

In this course, students can extend their study of science into actual primary research. The research students will do in this course revolves around the folding of proteins and the constructing of dynamic physical models that show how they interact. Students with skills in Chemistry, Biology, Physics and Computer Science are especially needed to create 3D printed models that can be used to further our understanding of biochemistry. Small groups of students with weekly targets to solve problems will work towards the ultimate goal of developing an improved physical model. It is expected that students will keep track of their hours, present their progress at weekly group meetings and write a literature review and a final research paper in collaboration with their group. Students will work with professors around the country and may publish findings and/or present at conferences as the work progresses. Due to the unique nature of this course, there are no grades assigned, only transcript credit. Please see the group website: [www.ccdsbiochem.com](http://www.ccdsbiochem.com).

*The Upper School History and Social Studies Department offers students a rigorous college preparatory curriculum rooted in further development of analytical writing, research skills, content comprehension and synthesis, document evaluation and analysis, and examination of globally diverse perspectives. In addition to the AP and the IB programs, students have access to a wide range of electives. In each of the three required years of history, students complete a research paper, engage in debate, and develop effective study tools and independent project skills.*

## I. Full Year Courses

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### *9<sup>th</sup> GRADE HISTORY (full year)*

This course introduces students to basic historical thinking through the in-depth study of several crucial themes in developing a basic foundation of American Government and American Capitalism. The class will explore multiple forms of government and why a Democratic Republic ended up being selected. We will also look at the development and implementation of the Constitution from its creation and the debates over what and who it included/excluded and how it changed over time to serve the citizens of the US. Our exploration will include looking at primary and secondary resources as they pertain to the subject matter, US Supreme Court cases and their decisions as well as a look at the political, social and cultural events that shaped the evolution of the American system. The second half of the class will look at the development of the economic systems in the US. We will explore the creation of a market system on a macro and micro level. The class will also explore the intertwined nature of government and economic systems through the development of the US. The class will also include a focus on the foundations of research and developing a research thesis and paper.

### *MODERN WORLD HISTORY (full year)*

Modern World History (or Honors Modern World History) is required for all 10<sup>th</sup> graders. The course focuses on the emergence of the modern world, from the 1600s to modern times. The course is organized thematically. It considers the revolutionary upheavals of the eighteenth century, the rapid political and economic change of the nineteenth century, the emergence of totalitarian ideologies and regimes in the twentieth century, and the subsequent strivings of peoples of the world for self-determination. The course emphasizes the refining of skills developed in 9<sup>th</sup> Grade History, including the use of primary, secondary, and artistic sources. Satisfactory completion of a research project is required.

### *HONORS MODERN WORLD HISTORY (full year)*

*Prerequisite: 9<sup>th</sup> Grade History and qualification*

The Honors Modern World History course examines modern world history through the same thematic and artistic lenses as Modern World History but provides students desiring a greater challenge in history with a broader exposure to primary sources and increased frequency and depth of expectation in written work and volume of reading.

### *IB WORLD HISTORY SL (full year)*

Please see the IB section of the course catalog for more information.

### *UNITED STATES HISTORY (full year)*

United States History is a topical study of American history from Indo-European contact through the present day. By examining the political, cultural and intellectual foundations of American civilization, students continue to apply the question-asking, writing and research skills learned during the previous two years. Topics include the America's colonial foundations, the causes and consequences of the American Revolution and the Civil War, the growth of American Industry, and the role of the United States in the twentieth century world. Satisfactory completion of a major research paper is required.

### *AP UNITED STATES HISTORY (full year)*

*Prerequisite: Modern World/ Modern World Honors and qualification with a B+ in regular/B- in Honors*

This advanced survey of United States history (1600-present) asks students to examine the origins and development of the United States through reading, discussion, writing, and research. Special attention is paid to the intellectual, cultural, and political development of

the United States as well as to the basics of historical thinking. The reading and writing load for this course is substantial. Students are expected to sit the AP US History exam.

### **AP PSYCHOLOGY (full year)**

*Prerequisite: Qualification based on grades in the previous yearlong English, History, or AP Biology grades*

This advanced survey of introductory psychology familiarizes students with the basic concepts in the scientific study of human behavior. Particular emphasis is placed on the most current neurobiological findings as well as the important roles of learning, memory, and consciousness in psychological processes. Students are expected to sit the AP Psychology exam. **Open to grades 11-12, with preference given to seniors.**

### **AP HUMAN GEOGRAPHY (full year)**

*Prerequisite: Qualification based on grades in the previous yearlong history course*

This advanced course introduces students to the study of patterns and processes that impact the way humans understand, use, and change their surroundings. Students use geographic models, methods, and tools to examine human organization (social, political, and economic) and its global and regional effects. Students learn to use maps and various types of data (demographic, economic, political, etc.) to examine spatial patterns and analyze the ever-changing interactions among people and places. Students are expected to sit the AP Human Geography exam. **Open to grades 10-12, with preference given to upperclassmen.**

### **AP EUROPEAN HISTORY (full year)**

*Prerequisite: Qualification based on grades in the previous yearlong history course*

This advanced course is a college-level survey of European History from 1400-2008 offered to students demonstrating interest and skill, writing and analysis. The topics covered represent a chronological survey of major political, economic, social, diplomatic, military, and religious themes with added focus on philosophical developments, social movements, and cross-cultural comparisons. Writing will focus on document analysis, historiography, and critical thinking skills in preparation for the AP European History exam. Students are expected to sit the AP European History Exam. **Open to grades 11-12, with preference given to seniors.**

### **AP US GOVERNMENT AND POLITICS (full year)**

*Prerequisite: Qualification based on grades in the previous yearlong history course*

This advanced course examines fundamental concepts used by political scientists to study processes, institutions, and outcomes of politics in a variety of settings. Students learn to analyze and compare data on political structures around the globe. Special emphasis is given to the processes and institutions of the United States government, implementation of public policies, and key figures in charge of making and implementing policies in the United States. The course prepares students for the Advanced Placement US Government exam. **Open to grades 11-12, with preference given to seniors.**

### **IB HISTORY OF THE AMERICAS HL (full year)**

Please see the IB section of the course catalog for more information.

### **IB ITGS SL (full year)**

Please see the IB section of the course catalog for more information. *This course is open to non-IB students.*

### **IB PSYCHOLOGY SL (full year)**

Please see the IB section of the course catalog for more information.



## II. Semester Electives

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### ***ADOLESCENT BRAINS & BEHAVIOR (first semester, repeats second semester)***

This course serves as an introduction to how adolescents think (cognitive neuroscience) and function to produce behavior, and it starts by providing a common language and understanding from the field of neuroscience. Students then focus on those behaviors of greatest relevance to teenagers, such as peer pressure, emotional reactivity, lack of self-control, and risk taking. The class looks at each of these behaviors in light of research into adolescent brain development and functional imaging. Focus will also be placed on the complexity of adolescent identity development and role of neuroscience. ***Open to grades 11-12.***

### ***AFRICAN AMERICAN HISTORY: FROM SLAVERY TO CIVIL RIGHTS (first Semester)***

This semester course will explore major themes in African American history beginning with a discussion of slavery in Africa, the Caribbean, and Latin America. The course will also cover topics including abolition, the Civil War, migration, the Harlem Renaissance, the Civil Rights Movement, and early 21<sup>st</sup> century events that pertain to African Americans living in the United States and internationally. ***Open to grades 11-12.***

### ***LATIN AMERICAN AND HAITIAN STUDIES (first Semester)***

This semester class will track the evolution of three main social constructs (race, gender and citizenship) in Latin America. The course dissects each concept in colonial, independence era, and 20<sup>th</sup> century Latin American contexts in Mexico, Central/South America and the Caribbean. The disciplines exercised in this class will challenge students to observe patterns throughout

history, make cultural connections, and exercise critical thinking and research tools that will benefit them throughout disciplines. Coursework includes observation of primary sources, analysis 20<sup>th</sup> and 21<sup>st</sup> century scholarship written by and for Latin Americans, and films that capture integral relevant concepts. ***Open to grades 11-12.***

### ***PRINCIPLES OF ECONOMICS (first semester, repeats second semester)***

This course is an introduction to the various facets of economics. A macroeconomics section focuses on economic models involving the government sector, private sector, and international sector; the microeconomics section focuses on individual case studies of industries and companies. Students are also exposed to the United States banking industry, the stock market, taxation issues, and questions regarding international trade. In addition, students learn the basics of sound personal finance. Case studies and oral presentations are required. ***Open only to grade 12.***

### ***EDUCATION FOR SOCIAL JUSTICE (second semester)***

The goal of this course is for students to undertake critical analysis of several forms of social oppression and their operating worldview and to be able to examine alternative ways of understanding the world and social relations. This class includes both an interdisciplinary subject matter that analyzes multiple forms of oppression and a set of interactive, experiential pedagogical principles that help students understand the meaning of social difference and oppression in their personal lives and the social system. ***Open to grades 11-12.***

It is the belief of the Department of Modern and Classical Languages that the acquisition of languages prepares our students to function in a global community by providing an appreciation of cultural differences and similarities, enhancing life opportunities and increasing cognitive skills and literacy. Students should continue the study of one or more languages until an appropriate level of proficiency is achieved, taking into consideration individual learning styles and longevity in the language program.

*Please note that based on enrollment numbers, courses may function as a mixed level classes (for example, honors and non-honors level students in the same class). These groupings vary from year to year.*

## I-a. Modern Languages: Chinese

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### **HONORS CHINESE LANGUAGE AND CULTURE I (full year)**

This course infuses the study of simplified Mandarin with Chinese culture. Students will begin to read, write, speak, and understand spoken Mandarin, while studying Chinese philosophy, poetry, festivals, and art. Activities including excursions to local markets and restaurants, cooking, origami, calligraphy, and more!

### **HONORS CHINESE LANGUAGE AND CULTURE II (full year)**

This course builds on the linguistic and cultural foundations developed in Honors Chinese language and Culture I. Students will further develop their Chinese language skills of reading, writing, listening, and speaking, while continuing to explore Chinese culture.

**CHINESE III (full year)** While reviewing the Chinese characters and sentences studied in I and II, students will continue to learn more vocabulary and grammatical structure as well as Chinese culture. Culture is taught through the study of literature, film, and current events.

### **HONORS CHINESE III (full year)**

**Prerequisite:** Qualification based on Chinese level II performance

Honors Chinese III covers the same material as Chinese III; however, expectations for language proficiency and production are greater for honors-level students.

### **CHINESE IV (full year)**

**Prerequisite:** Qualification based on Chinese level III performance

While reviewing the Chinese characters and sentences from Chinese III, students will continue to learn more vocabulary, grammatical structures, and culture. Aspects of Chinese culture are taught through the study of Chinese geography, history, idioms, proverbs, and authentic literature.

### **HONORS CHINESE IV (full year)**

Honors Chinese IV covers the same material as Chinese IV; however, expectations for language proficiency and production are greater for honors-level students.

### **IB CHINESE (full year)**

This program is designed for students who have some Chinese language learning experience before. In this course, students develop the ability to communicate in Chinese Mandarin through the study of language, themes, and texts. In doing so, they also develop conceptual understandings of how language works. Communication is evidenced through receptive, productive, and interactive skills across a range of contexts and purposes that are appropriate to the level of the course. IB ab initio Chinese Mandarin is organized into five prescribed themes: identities, experiences, human ingenuity, social organization and sharing the planet. The class will be conducted entirely in Chinese Mandarin.

## I-b. Modern Languages: French

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### *FRENCH I (full year)*

This course is an introduction to the Francophone cultures and the basic structure of the French language. Fundamental skills including speaking, writing, reading, and listening. Understanding and building a good vocabulary are strongly emphasized through games, dialogues, skits, and projects. The class is conducted predominantly in French.

### *FRENCH II (full year)*

This course continues to build on the knowledge of French language and francophone cultures studied in French I. Students are introduced to new grammar and vocabulary concepts, working to communicate in simple and complex sentences. Students continue to develop all their language skills and work to grow their French language proficiency from the novice to the intermediate level. The class is conducted predominantly in French.

### *HONORS FRENCH II (full year)*

*Prerequisite: Qualification based on French level I performance/recommendation of MS instructor*

This course continues to build on the knowledge of French language and francophone cultures studied in French I. Working at an accelerated pace, students are introduced to new grammar and vocabulary concepts, working to communicate in simple and complex sentences. Students continue to develop all their language skills and work to grow their French language proficiency from the novice to the intermediate level. The class is conducted entirely in French.

### *FRENCH III (full year)*

This course continues to build on the knowledge of French language and Francophone cultures studied in French II. Students are introduced to more complex grammar and vocabulary concepts, allowing them to narrate in different time frames while incorporating more advanced sentence structures. French language proficiency continues to develop at the intermediate level. The class is conducted in French.

### *HONORS FRENCH III (full year)*

*Prerequisite: Qualification based on French level II performance*

This accelerated course continues to build on the knowledge of French language and Francophone cultures acquired in French II Honors. Students are introduced to more complex grammar and vocabulary concepts, allowing them to narrate in different time frames while incorporating more advanced sentence structures. Students are introduced to authentic literature from Francophone countries. French language proficiency continues to develop at the intermediate level. The class is conducted entirely in French.

### *FRENCH IV (full year)*

In this advanced course students continue to develop their understanding of French and Francophone cultures and focus on the practical application of their French language skills. Students use authentic materials as a springboard to enhance their conversational skills and understanding of Francophone cultures and current events. Daily, students are expected to engage in conversations, expand their vocabulary and practice their language skills. This course is conducted in French.

### *HONORS FRENCH IV (full year)*

*Prerequisite: Qualification based on French level III performance*

In this advanced course, students continue their study of authentic literature and other materials to enhance their French language skills and understanding of Francophone cultures and current events. Daily, students are expected to engage in conversations, expand their vocabulary and practice their French language skills. This course is conducted entirely in French.

### *FRENCH V (full year)*

This course is designed to be a bridge between a grammar/vocabulary-based course and a university-level conversation class. Students continue to practice listening, reading, writing, and speaking in French. Students use authentic materials as a springboard to enhance their conversational skills and understanding of Francophone cultures and current events. French grammar is reviewed as needed, and the class is conducted entirely in French.

### **AP FRENCH LANGUAGE AND CULTURE (full year)**

*Prerequisite: Qualification based on French level IV performance*

This program of advanced reading, composition, speaking and vocabulary building provides preparation for the Advanced Placement French Language and Culture Examination. The core themes of AP (family/community, science/technology, beauty/aesthetics, contemporary life, global issues, personal/public identity) are addressed throughout the year. Students are expected to express themselves in French, both written and spoken, in a variety of contexts and modes including presentational, interpersonal, formal and informal. The class is conducted entirely in French.

### **IB FRENCH HIGHER LEVEL (full year)**

*Prerequisite: Qualification based on French level IV performance AND enrollment in the IB Program*

At the Higher Level, students are expected to extend the range and complexity of the language they use and understand in order to communicate. They continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyze and evaluate arguments on a variety of topics relating to course content and the target language culture(s). Students will also engage with the text types and themes required for the IB examinations. This course is conducted entirely in French. Note: this course prepares students for the Higher Level IB assessments.

## **I-c. Modern Languages: Spanish**

### **HONORS SPANISH FOR HERITAGE SPEAKERS (full year)**

This NEW course builds upon the Spanish language skills of students who have been raised in Spanish-speaking communities or households. The course develops more advanced speaking skills, addresses weaknesses in writing, expands vocabulary, and explores relevant cultural issues. Students enrolled in this honors-level course must demonstrate an advanced level of speaking proficiency. *Qualification based on teacher recommendation and/or oral proficiency interview (OPI).*

### **SPANISH I (full year)**

This course is an introduction to the Spanish language and culture, with emphasis on the basics of grammar and spoken Spanish. Students are expected to master essential verb structures and to express themselves both orally and in writing. The class is conducted predominantly in Spanish.

### **SPANISH II (full year)**

This course is a continuation of the introduction to the language and culture begun in Spanish I. Students are introduced to most Spanish verb tenses in the indicative mood and grow their Spanish language proficiency through reading, writing, listening and speaking. The class is conducted predominantly in Spanish.

### **HONORS SPANISH II (full year)**

*Prerequisite: Qualification based on Spanish level I performance/recommendation of MS instructor*

This course is a faster-paced study of Spanish II that emphasizes the four critical skills in second language learning of speaking, listening, writing, and reading. Students strengthen and expand conversational skills while developing their abilities to communicate and move from present to past to future in their speech, writing, and interpretation of the language. Students are introduced to the geography, music, and culture of Spanish speaking countries. The class is conducted in Spanish.

### **SPANISH III (full year)**

This course is an extension of the skills covered in Spanish I and II with a curriculum designed to strengthen the language foundation of each student through the incorporation of new vocabulary and grammar. The course includes fluency-building activities; and the language skills of reading, writing, listening, and speaking are equally emphasized. The class is conducted predominantly in Spanish.

### **HONORS SPANISH III (full year)**

*Prerequisite: Qualification based on Spanish level II performance*

This course is an extension of the skills covered in Spanish I and II with a curriculum designed to strengthen and deepen the language foundation of each student through the incorporation of new vocabulary and grammar. The course includes extensive fluency-building activities; and the language skills of reading, writing, listening, and speaking are equally emphasized. The class moves at an accelerated pace and is conducted entirely in Spanish.

### **SPANISH IV (full year)**

This course is a comprehensive review of Spanish grammar that places emphasis on improving composition and conversation skills while expanding vocabulary. Students will use authentic materials and task-based activities to practice communication through reading, writing, listening, and speaking. The class includes reading and discussions on Hispanic civilization and tradition, emphasizing similarities and points of



contrast with the North American culture. The class is conducted in Spanish.

#### **HONORS SPANISH IV (full year)**

*Prerequisite: Qualification based on Spanish level III performance*

This is an advanced course where students continue to develop and expand their awareness and general knowledge of the Hispanic and Latin American culture. The class focuses on the practical application of every skill. It is the expectation of this course that students develop an understanding of advanced grammar skills and acquire beyond the required vocabulary. Work includes – but is not limited to – oral presentations and projects, the study of contemporary issues, periodicals, short stories, and movies. On a daily basis, students are expected to engage in speaking interactions, expand their own vocabulary, and practice their writing skills. This course is conducted in Spanish.

#### **SPANISH V (full year)**

This is an advanced course where students continue to develop and expand their knowledge of Hispanic and Latin American cultures. The class focuses on the practical application of every skill. It is expected that students develop advanced grammar skills and move beyond the required vocabulary. Work includes – but is not limited to – oral presentations, projects, discussing contemporary issues, reading short stories, and studying Spanish films. Students will use authentic materials (newspapers, magazine articles, short stories, and films) as a springboard to enhance their conversational skills. This class is conducted entirely in Spanish. Note: this course also prepares IB students for the Standard Level assessments.

#### **AP SPANISH LANGUAGE AND CULTURE (full year)**

*Prerequisite: Qualification based on Spanish level IV performance*

This course is a program of advanced reading, composition, speaking, and vocabulary building which provides preparation for the Advanced Placement and International Baccalaureate Spanish language examinations. The core themes of AP (family/community, science/technology, beauty/aesthetics, contemporary life, global issues, personal/public identity) are addressed throughout the year. Students are expected to express themselves in Spanish, both written and spoken, in a variety of contexts and modes: presentational, interpersonal, formal and informal. The class is conducted entirely in Spanish.

#### **IB SPANISH HIGHER LEVEL (full year)**

*Prerequisite: Qualification based on Honors Spanish level IV performance AND enrollment in the IB Program*

At the Higher Level, students are expected to extend the range and complexity of the language they use and understand in order to communicate. They continue to develop their knowledge of vocabulary and grammar, as well as their conceptual understanding of how language works, in order to construct, analyze and evaluate arguments on a variety of topics relating to course content and the target language culture(s). Students will also engage with the text types and themes required for the IB examinations. This course is conducted entirely in Spanish. Note: this course prepares students for the Higher Level IB assessments.

## **II. Classical Languages: Latin**

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*Please note that based on enrollment numbers, courses may function as a mixed level classes (for example, honors and non-honors level students in the same class). These groupings vary from year to year.*

#### **LATIN I (full year)**

This course is an introduction to the basic grammar, syntax, and vocabulary of Latin. Students learn to manipulate the myriad inflections of Latin and become adept at reading edited original texts in Latin. Students are also introduced to the cultural contributions of the Roman Empire, particularly as they are reflected in our language and vocabulary.

#### **LATIN II-DL9 (full year)**

*Prerequisite: Qualification based on 7<sup>th</sup> and 8<sup>th</sup> grade Latin performance*

This 9<sup>th</sup> grade course creates a bridge between Latin I and Latin III for double-language students wanting to continue their study of Latin outside of the traditional classroom model. This student cohort follows the fundamentals of the Latin II curriculum via a guided independent study with a Country Day teacher, using interactive technology. Teacher input and student output activities are assigned and should be completed independently each seven-day cycle. Students meet with the teacher once at the beginning of the semester to outline course expectations, 3-4 times throughout the semester for scheduled assessments, and for extra help as needed. This course does not have semester exams and is graded as credit/no credit; however, student performance determines qualification for Latin III/Honors Latin III. **Open only to 9<sup>th</sup>**

**grade students who are enrolled in an additional language course.**

### **LATIN II (full year)**

This course is a continuation of Latin I with a more in-depth study of grammar and more lines of translation. Additional topics, such as history and culture, are also covered as time permits.

### **HONORS LATIN II (full year)**

**Prerequisite:** *Qualification based on Latin level I performance*

This course is a study of Latin II with a more in-depth study of grammar and more complex translation passages. Additional topics, such as history and culture, will also be covered as time permits.

### **LATIN III (full year)**

Latin III is a continuation of the study of advanced grammatical structures with a focus on Classical authors, including readings from Caesar, Catullus, Cicero, Vergil, Horace and Ovid. Students will begin to think critically about the texts as literature.

### **HONORS LATIN III (full year)**

**Prerequisite:** *Qualification based on Latin level II performance*

Honors Latin III is a faster-paced study of advanced grammatical structures and a more in-depth exploration of the authors. Students will read authentic selections from Caesar's *De Bello Gallico*, Catullus, Cicero's various works, Vergil's *Aeneid*, Horace's *Carmina*, and Ovid's *Metamorphoses*.

### **LATIN IV (full year)**

**Prerequisite:** *Latin III*

Students will read selections from Sallust, Martial, Catullus, Ovid, Cicero, Livy, Horace, and Vergil. Literary analysis and critical writing will be emphasized as the course progresses, as will the critical reading of and reaction to scholarly articles pertaining to the above topics. This course prepares students for the Standard Level Latin International Baccalaureate exam.

### **LATIN IV HONORS (full year)**

**Prerequisite:** *Qualification based on Latin level III performance*

Students will read selections from Martial, Catullus, Ovid, Cicero, Livy, Horace, Sallust, and Vergil. Literary analysis

and critical writing will be emphasized as the course progresses, as will the critical reading of and reaction to scholarly articles pertaining to the above topics. This course prepares students for the Higher Level Latin International Baccalaureate exam.

### **LATIN V (full year)**

**Prerequisite:** *Latin IV*

Students will read additional selections from Martial, Catullus, Ovid, Cicero, Livy, Horace, Sallust, and Vergil. Literary analysis and critical writing will be emphasized as the course progresses, as will the critical reading of and reaction to scholarly articles pertaining to the above topics. Note: this course also prepares IB students for the Standard Level assessments.

### **AP LATIN (full year)**

**Prerequisite:** *Latin IV and qualification*

This course is a college level course which studies excerpts from Books I, IV, V, and VI of Caesar's *Commentarii de Bello Gallico*, as well as excerpts from Books I, II, IV, and VI of Vergil's *Aeneid*. The students will also read those entire works in English. Emphasis is on literary analysis and critical writing.

### **IB LATIN (full year)**

**Prerequisite:** *Latin IV and enrollment in the IB Program*

IB Latin is comprised of three main parts: study of language, study of literature, and the research dossier project. The main aim of the first part of the syllabus is to equip students with the language skills to read and understand Classical authors in the original Latin. For the second part of the syllabus, students are given experience of Classical literature through prescribed passages in original language (Catullus, Horace, Ovid, Martial and Vergil). The research dossier offers students the opportunity to examine an aspect of Classical language, literature or civilization that is of particular interest to them. The student will compile annotated primary source materials relating to a topic in Roman history or culture. Note: this course prepares students for the Higher Level and Standard Level IB assessments.

## **International Baccalaureate**

All languages are available at certain levels; please see the IB section of this course guide for more information.

**T**he Fine Arts Department believes in the value of the arts as the physical manifestation of the human spirit.

Our goal is to develop the creative capacity within students to think, invent, and express themselves. We strive to cultivate an enduring appreciation for and understanding of music, visual art and drama. **By participating in the creative process, students discover and develop their individual and collective talents.**

## I. Choral Music

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### *CONCERT CHOIR (full year)*

The upper school's beginning choir welcomes all students in grades 9-12 who enjoy to singing and making music with friends! There is no experience necessary for this ensemble. Students will learn to stand tall, raise their voice and support each other in their growth. Singers will discover the fundamentals of music, sight-reading and vocal pedagogy through performance of a variety of music in this ensemble. All are welcome in grades **9-12. Students may re-enroll in Concert Choir multiple years or can move up to Chamber Choir after one year in Concert Choir.**

### *A CAPPELLA ENSEMBLE (second semester)*

*Prerequisites: audition*

Modeled after collegiate a cappella ensembles, this class allows students to take ownership of their learning by selecting, preparing, and potentially arranging their own music. Students examine a wide variety of a cappella choral literature, ensemble skills, sight-reading and vocal pedagogy. Students are accepted into this choir after an audition with the instructor. **This ensemble is open to grades 9-12. Students may re-enroll in A Cappella Ensemble multiple semesters.**

### *CHAMBER CHOIR (full year)*

*Prerequisites: one semester of Upper School Concert Choir (or an equivalent) and by audition*

The Chamber Choir is Country Day's top vocal ensemble. This elite choral ensemble performs a variety of challenging music for concerts and functions throughout the school, the community, and the southeast. Students are accepted into this choir after one year of Concert Choir (or an equivalent) by audition. Building upon the principles taught in the Concert Choir, students continue their study of the fundamentals of music, sight-reading, music theory and vocal pedagogy. **This choir is open to grades 10-12; students may re-enroll without audition in Chamber Choir multiple years.**

### *HONORS CHAMBER CHOIR (full year)*

*Prerequisites: one semester of Upper School Concert Choir (or an equivalent) and by audition*

Honor Chamber Choir is offered to juniors and senior members of the Chamber Choir who, in addition to fulfilling the requirements of regular level Chamber Choir, must meet higher performance goals and broader, more rigorous expectations including fundamentals of music theory, music history, and research into current musical events. Students are also required to participate in extra performances beyond the regular level requirement throughout the year and are expected to take on leadership roles within the group. **This choir is open to grades 11-12; students may re-enroll without audition in Honors Chamber Choir multiple years.**

## II. Instrumental Music

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### *SYMPHONIC BAND (full year)*

*Prerequisites: Participation in the MS Band program OR audition and permission of the instructor*

This performing ensemble comprised of brass, winds, and percussion instruments is designed to develop the potential of the instrumental musician and to foster an appreciation of music. Students continue to develop their ensemble and musicianship skills through the preparation of music from the concert band literature for performance in concert twice during the school year. There may be additional opportunities to perform as representatives of the school community throughout the year. **Students may re-enroll in Concert Band multiple years.**

### **HONORS SYMPHONIC BAND (full year)**

**Prerequisites:** *Current enrollment in MS or US Symphonic (formerly Concert) Band and audition*

The Honors option for Band is offered to continuing band students who demonstrate exceptional ability in their knowledge of music and in performance both in daily classroom work and in public performance. In addition to the requirements of Concert Band, students choosing the Honors option must meet higher performance goals and broader, more rigorous expectations including fundamentals of music theory and music history. There may be additional opportunities to perform as representatives of the school community throughout the year. Details are available in the spring each year from the instructor. Honors students must apply and successfully complete an audition each year in order to be accepted into this program. ***Students may re-enroll in Honors Concert Band multiple years.***

### **STRING ORCHESTRA (full year)**

**Prerequisites:** *Participation in the MS band program OR audition and permission of the instructor*

This performing ensemble includes violin, viola, cello and piano and is designed to develop the potential of the instrumental musician and to foster an appreciation of music. Students continue to develop their ensemble and musicianship skills through the preparation of music from the string orchestra and chamber music literature for performance in concert twice during the school year. There may be additional opportunities to perform as representatives of the school community throughout the year. ***Students may reenroll in String Orchestra multiple years. Students wishing to play piano must successfully complete an audition with the instructor.***

### **HONORS STRING ORCHESTRA (full year)**

**Prerequisites:** *Current enrollment in MS or US Honors Orchestra and audition*

This year long course is offered to students who demonstrate exceptional ability in their knowledge of music and in performance both in daily classroom work and in public performance. In addition to the requirements of String Orchestra, students choosing the Honors option must meet higher performance goals and broader, more rigorous expectations including fundamentals of music theory and music history. Details are available in the spring each year from the instructor. Honors students must apply and successfully complete an audition each year in order to be accepted into this program. There may be additional opportunities to perform as representatives of the school community

throughout the year. ***Students wishing to play piano must successfully complete an audition with the instructor.***

## **III. Music Theory & Production**

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### **DIGITAL MUSIC STUDIO (first semester)**

Digital Music Studio teaches students to produce and arrange music. Students create original melodies, learning to notate the melodies by hand and through the use of music notation software. After editing their compositions into a final draft, students record their work into multi-tracks and augment it into a finished product through the use of MIDI, multi-track recorders, and effects processors. As students acquire the necessary skills, they have the option to develop their melodies into musical arrangements suited for specific types of performing groups. Some knowledge of piano and/or reading music is helpful but not required for this course. ***Open to grades 9-12.***

### **DIGITAL ANIMATION AND FILM PRODUCTION (first semester, repeats second semester)**

This course offers students the chance to create and edit animated and real-time film shorts (2-3 minutes). In a hands-on, collaborative environment, students learn about and explore the numerous visual, dramatic, musical and technical opportunities for visual storytelling. Project by project, students build their artistry of storyboarding, writing, producing, directing, and editing their own short films. Students learn to use Adobe Animator, Vegas movie editor, video cameras, props, and on-location shooting, among other skills.

### **FOUNDATIONS OF MUSIC (second semester)**

Please note that this course is not offered in the 2022-23 academic year.

**Prerequisites:** *At least one year of CCDS music instruction and successful completion of an entrance evaluation and a basic foundation in reading music.*

This course is a pre-requisite for AP Music Theory and will introduce students to the theory, history, and genres of music. Topics will include elements of music (rhythm, meter, tempo, syncopation, melody, scale, pitch, dynamics, timbre, texture, harmony and form) as well as genres such as Medieval, Renaissance, Baroque, Classical, Romantic, 20<sup>th</sup> Century, and beyond. ***Open to grades 10-12.***



### AP MUSIC THEORY (full year)

*Prerequisites: qualification based on performance in current music class and proficiency exam*

The goal of AP Music Theory is to develop the students' ability to recognize, understand, and describe the basic materials and processes of music as heard or presented in a score. This goal is achieved by integrating aspects of melody, harmony, texture, rhythm, form, history and style while engaging with listening and written exercises. A student's ability to read and write musical notation is fundamental to this course, and a student must possess basic performance skills in voice or on a musical instrument in order to be admitted. Students must also score well on an entrance exam, which includes a general knowledge of musical terminology, basic music theory, and sight-singing. **Open to grades 10-12 after completing successful proficiency exam.**

### IB MUSIC (SL, two years)

Please see the IB section of the course catalog for more information.

## IV. Theatre Arts

### PRODUCTION CONCEPTS (first semester)

*Not offered in 2021-22*

Students in this class will benefit from experiential learning by solving actual problems associated with CCDS theatrical productions and fictional productions. Specifically, the class will gain skills in set design, directing concepts, stage make up, costuming, stage management, and prop building. This course emphasizes the "backstage" side of theatre as opposed to performance.

### ACTING/DIRECTING I: (first semester)

In this class, students dive into their imagination, emotion, and intellect. By making each actor aware of the universality of theatre, the tools of acting are enhanced, developed, and learned. It is the beginning of the actor's journey of exploration to uncover the creative vision of the playwright. In order to discover the "who, why, where, when, and how" of each character it is imperative the student actor understands the craft of acting. This course requires a disciplined approach to voice, speech, movement, and the actor's ability to use "self" (body, mind, and experience). *Note: Students who have taken Acting I may apply for the Directing I portion of this class by March 15<sup>th</sup> prior to enrollment.* See qualification requirements for dates.

### ACTING/DIRECTING II (second semester)

*Prerequisites: Acting/Directing I*

This more advanced acting class emphasizes the process of acting and directing. Actors will be introduced to a wide array of acting schools and approaches to a role and techniques, including Stanislavsky, Strasberg, Adler, Meisner, and the New School. However, the class activates processes so students discover his or her personal voice in the craft. Additionally, students explore scripts from all genres and look at the connection between written word, interpretation, and presentation. The class is run in workshop format where the concepts are put into practice. *Students who have taken Acting I may apply for the Directing II portion of this class by November 20<sup>th</sup> prior to enrollment.* See qualification requirements. **Open to grades 10-12.**

### THEATRE WORKSHOP (second semester)

*Prerequisites: Any previous theater class*

This class will provide a unique, hands-on experience in creating a production. Students will choose, direct, produce and perform a 40-minute show which will be presented during the semester at either the Lower of the Middle School, depending on the theme or script chosen. Students will participate in all aspects of the production and will have the option to create an original script. In addition to the practical components of producing a show, students will learn how theater can be used for social or political critique, entertainment, or impact. **Open to grades 10-12.**

### IMPROVISATION I (first and second semester)

This course is designed to give students an in-depth look at the art of improvisation by learning how to give an unscripted response to an idea or situation. Students will gain inductive discovery, nonverbal communication, risk-taking, team building, critical thinking skills, and understand how to integrate improvisational thinking into their daily lives. While performing improvisation will be the focus of this course, students will also engage in their own sketch writing skills. Students will study both short form and long form improvisation while researching successful improvisational actors (such as Robin Williams, Steve Carell, Mindy Kaling, Amy Poehler and Eddie Murphy). Additionally, this class will explore historical aspects and current trends in improvisation and improvisation groups/art forms. Student assessment will be determined based on participation, class projects, daily activities, and presentations. **Open to grades 9-12.**

### IMPROVISATION II (second semester)

*Prerequisites: Improvisation I*

This course is designed to give students an advanced exploration of the art of improvisation by learning how to give and unscripted response to an idea or situation.



Student will gain an in-depth discovery of understanding how to integrate improvisational skills into the creative process. While performing improvisation will be the focus of this course, students will also engage in forming and idea from quick thinking to a concrete, rehearsed format. Students will study both short form and long form improvisation while writing and performing sketch. Additionally, the class will explore historical aspects and current trends in acting and improvisation groups/art forms. Student assessment will be determined based on participation, research papers, daily activities, journals, and presentations. **Open to grades 9-12.**

#### **IB THEATRE ARTS (SL- full year, HL- first semester)**

Please see the IB section of the course catalog for more information.

## V. The Visual Arts

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**T**he Visual Arts curriculum at Country Day offers students an in-depth study of art principles and processes in several media. Students typically enter 2D Art, Sculpture, or Design at Level I. Students may explore a variety of Level I courses to fulfill their three-semester graduation requirement. However, many students progress through all three levels of a particular strand in preparation for an AP or IB Studio Art experience. Completion of Level III in any area and a successful portfolio evaluation are required for placement in an AP Studio Art class.

#### **2D ART I (first semester, repeats second semester)**

2D Art I introduces the basics of two-dimensional art production, artistic investigation, art criticism, and art history. Students explore printmaking, painting, drawing, and mixed media in an effort to learn how to creatively solve artistic problems around teacher-directed themes. Individual reflection and experimentation are encouraged as students build a base knowledge of the elements and principles of design. **Open to grades 9-12.**

#### **2D ART II (first semester, repeats second semester)**

**Prerequisites:** 2D Art I

2D Art II builds upon techniques and concepts introduced in 2D Art I. Students continue their investigation of drawing, painting, printmaking, and mixed media to express personal ideas. Art criticism and art history are integral components to the course in order to help students evaluate and articulate their views on art. Students are encouraged to set individual goals and work with teachers to attain those goals. Creative problem-solving and individual experimentation are encouraged.

**Open to grades 9-12.**

#### **2D ART III (first semester, repeats second semester)**

**Prerequisites:** 2D Art II

2D Art III builds upon the techniques and concepts of 2D Art II as students work toward building a portfolio of artwork. Advanced techniques in drawing, painting, and printmaking are introduced as students are encouraged to develop a personal voice through their art. Students learn about contemporary artists through gallery visits, research, reading, and reflection. Greater student independence is fostered as students select the subject matter, materials, and methods to develop their images. At this level, the students continue to build skills, work on compositional problems, and experiment with multiple media. **Open to grades 10-12.**

#### **2D ART IV (first semester, repeats second semester)**

**Prerequisites:** 2D Art III

2D Art IV is intended for advanced students who wish to continue building technical skill and develop their own portfolio. Independent exploration of subject and media is critical to student success. **Students enrolling in level IV will be scheduled with another 2D Art class.**

#### **DESIGN/ PHOTOGRAPHY I (first semester, repeats second semester)**

Design I provides a foundation level for photographic and digital media study in the Upper School. The course introduces digital photography and two-dimensional image manipulation on the computer. Students develop a working knowledge of computer-based design and aesthetic theories. This course emphasizes the study of the elements of art and principles of design, composition, color theory, art criticism, and art history. Individual problem solving and decision-making are emphasized throughout Design I. **Open to grades 9-12.**

#### **DESIGN/ PHOTOGRAPHY II (first semester, repeats second semester)**

**Prerequisites:** Design I

Design II continues the study of digital media begun in Design I by building upon the student's technical skill and foundation of knowledge. Traditional black and white photographic processes are introduced in Design II. Art

criticism and art history are integral components to the course in order to help students evaluate and articulate their views on art. Students are encouraged to set individual goals and work with the teacher to attain those goals. Creative problem solving and individual experimentation are encouraged. The student's work in Design II is more experimental and based on informed choices. ***Open to grades 9-12. Students must have access to a 35mm, single lens reflex, film loading camera to participate in the class. Students will also be required to purchase photographic paper for developing (approximately \$60 - \$75).***

### ***DESIGN/PHOTOGRAPHY III (first semester, repeats second semester)***

#### ***Prerequisites: Design II***

Design III is intended for the serious design student who may wish to pursue AP Art in the junior or senior year. Students strengthen their computer and photographic image making skills learned in Design II and continue to pursue issues in art criticism and art history. Students work individually and in groups to solve realistic design problems such as the creation of logos, signs and symbols, products and videos. Students build a portfolio of artwork that shows experience with different media and techniques. Knowledge of design in relation to culture, history, other disciplines, and careers are encouraged through gallery visits, research, reading, and reflection. Students have the option to concentrate on computer generated work, camera/darkroom-based expression or a combination of the two. ***Open to grades 10-12. Students must have access to a 35mm, single lens reflex, film-loading camera to participate in the class. Students will also be required to purchase photographic paper for developing (approximately \$60-\$75).***

### ***DESIGN/PHOTOGRAPHY IV (first semester, repeats second semester)***

#### ***Prerequisites: Design III***

Design IV is intended for advanced students who wish to continue building technical skill and develop their own portfolio. Independent exploration of subject and media is critical to student success. ***Open to grades 10-12. Students enrolling in level IV will be scheduled with another Design class.***

### ***SCULPTURE I (first semester, repeats second semester)***

This course is designed to reinforce and build on knowledge and skills developed at the elementary and middle school levels. It is the foundation level for three-dimensional art throughout the upper school. This course emphasizes the study of the elements of art and principles of design, color theory, vocabulary, art criticism, art history, machinery knowledge, and safety in the art room.

The course is devoted to investigating various sculpture processes, procedures, theories, and historical developments. Students will explore a variety of three-dimensional media including glass, wire, plaster, wood, and clay. Students are provided a strong foundation in design, sculpture and vocabulary in a teacher-structured environment. Problem-solving and decision-making are emphasized throughout Sculpture I. ***Open to grades 9-12.***

### ***SCULPTURE II (first semester, repeats second semester)***

#### ***Prerequisites: Sculpture I***

Sculpture II builds upon the student's technical skill and foundation of knowledge developed in Sculpture I. Various fine crafts processes, procedures, and theories are presented in a problem-solving manner, which allows for independent choices and personal solutions to problems. Students research three-dimensional art to gain an appreciation for art of the past and present. Students continue their study of the elements of art and principles of design, color theory, vocabulary, and art history while producing a variety of sculptural works. ***Open to grades 9-12.***

### ***SCULPTURE III (first semester, repeats second semester)***

#### ***Prerequisites: Sculpture II***

Sculpture III presents students with an in-depth approach to the study of three-dimensional processes and techniques, aesthetic issues, art criticism, and art history. It is designed for the serious sculpture student who may wish to pursue AP Sculpture in their junior or senior year. The teacher will help students set goals and develop work habits similar to that of professionals. Knowledge of sculpture in relation to culture, history, other disciplines, and careers will be promoted through visual, verbal, and written means. Students are encouraged to develop a personal style and philosophy of three-dimensional art. In Sculpture III, students will begin to build a portfolio that focuses on technical quality, personal style, growth, and function. ***Open to grades 10-12.***

### ***SCULPTURE IV (first semester, repeats second semester)***

#### ***Prerequisites: Sculpture III***

This class advances students who wish to continue building technical skill and develop their own portfolio. Independent exploration of subject and media is critical to student success. The teacher will help students set goals and develop work habits similar to that of professionals. Knowledge of sculpture in relation to culture, history, other disciplines, and careers will be promoted through visual, verbal, and written means. Students are encouraged to develop a personal style and philosophy of three-dimensional art. In Sculpture III, students will begin to build a portfolio that focuses on technical quality,

personal style, growth, and function. **Open to grades 10-12. Students may re-enroll in multiple years.**

### **SPECIAL PROJECTS IN VISUAL ARTS (first semester, repeats second semester)**

**Prerequisites:** Level IV Design, 2D Art, or Sculpture; approval of application portfolio required for admittance.

This semester-long class is designed for experienced, highly motivated, dedicated art students specializing in Design, 2D Art, 3D Art, or a combination therein. The class is for students who want to advance but do not wish to take AP or IB Art. Students should be motivated to work independently in and out of the classroom, as they will be responsible for selecting the subject matter, materials, and methods used to develop their ideas. The sketchbook is an integral part of the art-making process and a minimum of two hours per week (homework) is spent on sketchbook work. This includes recording and developing ideas; investigating and critically analyzing work; practicing drawing and design skills, etc. Students are expected to study Art History, aesthetics, and the artwork of other cultures and historical time periods as it relates to their own work. A complete sketchbook as well as a portfolio of finished work, archived digitally and collected in an actual portfolio, are due at the completion of the course. Students are expected to use different media, techniques and genres and to master at least one medium. **Open to grades 11-12.**

### **AP STUDIO: 2D ART (full year)**

**Prerequisites:** Successful completion of level III or IV 2D Art courses, and portfolio evaluation

AP Studio is designed for students who are seriously interested in the practical experience of art. Students submit portfolios for evaluation at the end of the school year, which are composed of breadth and concentration sections. This course emphasizes making art as an ongoing process of informed and critical decision-making. AP students must be self-directed with the ability to produce works of art at an accelerated pace and with exceptional technical skill. Concentrations within the class may be on drawing or two-dimensional design. **Open to grades 11-12.**

### **IB Art (SL, HL) (two years)**

Please see the IB section of the course catalog for more information.

### **AP STUDIO: DESIGN/PHOTOGRAPHY (full year)**

**Prerequisites:** Successful completion of level III or IV Design courses, and portfolio evaluation

AP Design is intended for students who are seriously interested in the practical experience of digital and

photographic arts. Students develop portfolios for evaluation that are composed of breadth and concentration sections. This course emphasizes informed and critical decision-making. AP students must be self-directed with the ability to produce works of art at an accelerated pace and with exceptional technical skill. **Open to grades 11-12.**

### **AP STUDIO: SCULPTURE (full year)**

**Prerequisites:** Successful completion of level III or IV Sculpture course, and portfolio evaluation

AP Sculpture is designed for students who are interested in the practical experience of art. Students submit portfolios for evaluation at the end of the school year that include breadth and concentration sections. The AP portfolio is intended to address sculptural issues and purposeful decision-making utilizing the elements and principles of art in an integrative way. AP students must be self-directed with the ability to produce works of art at an accelerated pace and with exceptional technical skill. **Open to grades 11-12.**

### **AP ART HISTORY (full year)**

**Prerequisites:** qualification based on grade of 85 or better in current history class grade

This course is designed to introduce students to significant works of art and architecture in both the European and Non-European tradition. The goal is to promote the understanding and enjoyment of art while developing students' abilities to examine works of art intelligently by acquainting them with the major forms of artistic expression historically and in their own time. Students examine and develop and appreciation of art from cave paintings to the twenty-first century in addition to the art of Africa, Asia, and the Americas. **Open to grades 11-12.**

### **YEARBOOK (full year)**

**Prerequisite:** Instructor approval for grades 9 and 12

Students produce the school's yearbook, *The Postscript*, over the course of the first three quarters of the school year. The remaining quarter is spent planning the Spring edition for the following year. Student editors organize small groups to compile and complete sections of the yearbook, including senior ads, athletics, divisional highlights, student photos, clubs, and more. All students learn the essentials of page layout, photo and copy editing, and writing. Student photographers must be able to cover events during the day, after school, and on the weekends. Above all, meeting deadlines and teamwork are essential skills. **Open to grades 9-12.**

**T**echnology & Computer Science courses promote technological and information literacy as well as critical thinking, problem-solving, and decision-making skills necessary for all individuals to compete in our ever-changing global economy. Courses enhance students' conceptual understanding, procedural knowledge, and problem-solving skills in technology, including its nature, impact, and social, ethical, and human aspects.

## *EXPLORING COMPUTER SCIENCE (second semester)*

What is Computer Science? Most students believe computer science is learning how to write programs. While that, in part, is true, computer science is much more. *Exploring Computer Science* is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Have you ever wanted to write computer code? Have you ever wanted to learn more about computer game design? Students are introduced to topics such as programming in Python, web page design, problem solving and data analysis, societal and ethical issues in computing, and phone apps. **Open to grades 9-12.**

## *AP COMPUTER SCIENCE "A" (full year)*

*Prerequisite: Qualification based on grades in Honors*

*Pre-Calculus or higher math course OR ECS.*

Students follow the College Board's Advanced Placement Computer Science syllabus, learning to program in the Java language. The major emphasis of the course is on problem-solving techniques, object-oriented solution methodologies, algorithms, and container classes. Students learn the context of these subjects through

applications of computing. Students are expected to sit the AP Computer Science exam. **Open to grades 10-12.**

## *ADVANCED TOPICS IN COMPUTER SCIENCE – Honors (first semester)*

*Prerequisites: AP Computer Science and project proposal*

This course will be divided into two parts. The first four to six weeks of the class will be devoted to studying data structures in Java. Linked lists, stacks and queues will be discussed as a means to manage large amounts of data efficiently. The remainder of the course will be devoted to student inspired computer science projects. Each student project must be submitted to and approved by the instructor. The scope and depth of the project, tools/programming languages needed are to be determined by the student and will be monitored daily in class. Projects must be submitted for approval at the time of registration. Weekly goals will be set to gauge student progress. Final completed projects will be presented before the academic council in January. **Open to grades 11-12.**

*See also: Digital Music Studio and Short Films in the Fine Arts offerings*



## Non-Departmental Courses

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Many students opt to take elective credits in the form of a second Science or Foreign Language class, or an additional class in the Fine Arts. Semester electives also exist in the Social Studies and English and Computer Science departments. Additional, Non-Departmental offerings are listed below:

### *ENTREPRENEURSHIP (one semester course, offered in the fall)*

#### *Prerequisite: Application and instructor approval*

In this course, students work with carefully selected local entrepreneurs who present real and urgent business dilemmas with hard deliverables and deadlines to build real-life business solutions. The program includes active, collaborative and team-based activities requiring full engagement in and out of the classroom. Students start the semester with an immediate immersion into the Lean Startup methodology and Design Thinking techniques. Students then learn processes including customer development, agile development, and rapid prototyping. Student curiosity drives the curriculum, while the instructor provides the scaffolding, resources, skills and background information necessary. In the final portion of the course, students will construct, present, and launch their own startups. **Open to Seniors. Juniors may be eligible, though they must petition the instructor.**

### *FRESHMAN SEMINAR (full year, two days each cycle)*

#### *Required for all 9<sup>th</sup> grade students*

This semester-long course is designed specifically for 9<sup>th</sup> graders and addresses various issues and developmental needs of young adolescents as they transition to the expectations of the Upper School. Topics include goal setting; time management; decision-making skills; media literacy; study skills; leadership; character and integrity; drug, alcohol and tobacco education; wellness; emotional well-being; stress management; bullying; harassment awareness; identity development; difference; and cooperation. The purpose of the course is to help students on their way to a healthy, productive Upper School career.

### *PUBLIC SPEAKING AND PROFESSIONAL COMMUNICATION (first semester, repeats second semester)*

The primary purpose behind this class is to give students the opportunity to be comfortable in front of an audience. In addition to gaining confidence to speak to anyone, students become proficient in gathering and organizing content for a variety of different categories of speeches. Students learn the importance of active

listening, in-person and online interviews, nonverbal and verbal communication, constructive criticism, as well as knowing and growing their audience as they enter the professional world.

### *THE NEW JOURNALISM: STORYTELLING AND PODCASTING I and II*

Journalism is rapidly changing, and technology is leading the way. Join us as we visit the basics of storytelling and the growing trend of podcasting using our recording studio. Podcasting is a way of telling a story through audio — using pieces of sound files, voice overs, recorded conversations and effects woven into a narrative. Podcasts help students strengthen their writing abilities, listening skills, and develop public speaking skills.

### *CARDIO/CORE*

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This conditioning class is meant for all students: those who are athletes and those who want to become healthier and more fit. Cardio/Core involves both strength and cardio exercise, resulting in total body conditioning. This class is designed to target all major muscle groups. Free weights, resistance bands, med balls, kettle bells, steps, and BOSU balls will all be incorporated into the program. This class is focused on the five components of fitness each day (Cardiovascular Endurance, Muscular Strength, Muscular Endurance, Flexibility, Body Composition). Note that this course does not involve weight room activities.



### **STRENGTH TRAINING**

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This course is suitable for all levels (beginner through advanced), athletes and non-athletes. Students will be exposed to the basic upper and lower body lifts as well as advanced levels of strength and conditioning exercises. Strength Training involves weight training and some cardio fitness in every class.

### **LIFEGUARDING: ARC CERTIFICATION PROGRAM**

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This class is designed to teach the basics in water safety and the proper protocol when dealing with any emergencies around the water. Both traditional lecture style and hands-on training are incorporated to teach effective techniques to deliver prompt and accurate care to those in need. ARC Lifeguard Certification is awarded upon successful completion of the course and is valid for two years.

# International Baccalaureate Program

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The International Baccalaureate (IB) Diploma Program is a 2-year course of study for students in 11<sup>th</sup> and 12<sup>th</sup> grades. Students in the IB Diploma Program gain rigorous and balanced academic preparation, an ability to draw on knowledge and understanding of various cultures and histories, and the experience of learning how to think critically and apply what they have learned across disciplines.

The IB Diploma Program consists of the IB core curriculum and **six distinct “groups” of study**, listed below. At least three but no more than four will be at the higher level (HL) and the remainder will be at the standard level (SL). Course selection within IB is based on student interest, availability, and prerequisites. In most cases, IB students are in dedicated IB classes, listed below; in certain disciplines, students continue in the regular departmental offerings.

There are no required “pre-IB” courses at Country Day but completing some advanced/Honors level courses during 9<sup>th</sup> and 10<sup>th</sup> grades is recommended. Interested students apply to the IB program during February of the 10<sup>th</sup> grade year.

Please see the IB page on BucsNet and/or consult the IB Coordinator for further information.

## The IB Core Curriculum:

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*The following items form the “core” of the IB experience and are required for all IB students:*

### **IB THEORY OF KNOWLEDGE (full year course)**

#### **Prerequisite: Enrollment in the IB Program**

In this junior year course, IB students strive to develop their critical awareness of what they and others know and value. Students analyze “personal knowledge” and “shared knowledge,” observing the overlap and exchange between these categories. Students learn to ask and to answer “knowledge questions” and use “the knowledge framework” to explore eight “ways of knowing” and eight “areas of knowledge.” Students are evaluated through class activities and discussion, textbook and parallel reading, oral presentations, regular informal journals, and online writing. Enrollment in the IB program is required.

### **EXTENDED ESSAY**

The extended essay is an in-depth study of a topic that culminates in a major research paper. Students choose their research topic from a wide variety of disciplines and choose a faculty mentor for guidance throughout the essay-writing process. The extended essay is completed during the junior year (as part of Theory of Knowledge) and submitted to IB during the senior year as part of the IB diploma requirements.

### **CREATIVITY, ACTIVITY & SERVICE (CAS)**

CAS is designed to be an opportunity for students to be involved in learning experiences that occur outside of the classroom. Working with the CAS Coordinators, students choose experiences that involve goal setting, personal growth, and reflection in the three general areas of creativity, physical activity, and service learning. Students maintain a digital notebook to log experiences and discuss and reflect on their learning outcomes. All IB students are expected to be regularly involved in and reflecting upon CAS throughout their time in the IB program.

## Group I: Language & Literature

### IB ENGLISH 11 HL (full year)

**Prerequisite:** enrollment in the IB program

**Required for all IB juniors,** IB English 11 enables students to build on skills acquired in English 10 by continuing their experience of a broad range of genres, periods, and styles in literature, including world literature texts in translation. Over the two years of IB English, students typically study texts by authors such as Ibsen, Fugard, Szymborska, Garcia Marquez, Allende, Shakespeare, King, Heaney, Hawthorne, Morrison, and Fitzgerald. IB assessments include a formal oral presentation on a text and a formal literary analysis of a world literature text studied in the course; this essay is ultimately graded by external IB

readers. Like their peers in other 11th grade English courses, IB students complete an autobiography.

### IB ENGLISH 12 HL (full year)

**Prerequisite:** IB English 11, enrollment in the IB program

**Required for all IB seniors,** IB English 12 continues the work begun in IB English 11, with a focus on preparing students for the IB written exams at the end of the year. Major assessments completed at the end of the senior year are scored by external IB readers. Over the two years of IB English, students typically study text by authors such as Ibsen, Fugard, Szymborska, Garcia Marquez, Allende, Shakespeare, King, Heaney, Hawthorne, Morrison, and Fitzgerald. This course fulfills the requirements of IB Language A: Literature HL.

## II. Group 2: Language Acquisition

IB Languages study occurs at three possible levels. *“Ab initio”* is the most basic level and intended for students beginning a new language. *Standard level (SL)* is for students with multiple years of experience with the language. *Higher level (HL)* is for high-performing students with multiple years of experience. Students in the IB program move within the language curriculum at the appropriate level of language proficiency. For any AP or Honors course, IB students must qualify like any other Country Day student.

The chart below describes which courses students should attain in their junior and senior years to be best prepared for IB assessments at a particular level. However, there is some flexibility and students may be allowed to take alternate courses with permission from the teacher and IB coordinator.

IB Language of Choice and Minimum Level		11 <sup>th</sup> grade course	12 <sup>th</sup> grade course
LATIN	<i>ab initio</i>	(not available)	(not available)
	Standard Level (SL)	Honors <u>or</u> regular Latin IV	Latin V
	Higher Level (HL)	Honors Latin IV	IB Latin
CHINESE	<i>ab initio</i>	Honors Chinese III	IB Chinese
	Standard Level (SL)	(not available)	(not available)
	Higher Level (HL)	(not available)	(not available)
FRENCH	<i>ab initio</i>	French I	Honors French II
	Standard Level (SL)	Honors French IV, French IV, <u>or</u> Honors French III	French V <u>or</u> Honors French IV
	Higher Level (HL)	Honors French IV	IB French HL
SPANISH	<i>ab initio</i>	Spanish I	Honors Spanish II
	Standard Level (SL)	Hon Spanish IV, Spanish IV, <u>or</u> Honors Spanish III	Spanish V <u>or</u> Honors Spanish IV
	Higher Level (HL)	Honors Spanish IV	IB Spanish HL

### III. Group 3: Individuals & Societies

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#### *IB WORLD HISTORY SL (full year)*

*Prerequisite: Enrollment in the IB Program*

**Required for all IB juniors**, this course focuses on in-depth study of selected World History topics. These topics may include the US Civil Rights movement, South African apartheid, industrialization from 1750-2005, and the Cold War. Through examination of these topics, students develop greater international mindedness, engage with and evaluate primary sources, and continue to develop their ability to write effectively in History. Major assessments are writing intensive and include the IB historical investigation. At the completion of this course, students either take the IB History SL exam or continue to IB History of the Americas as an HL history candidate. This course fulfills the requirements of IB History SL.

#### *IB HISTORY OF THE AMERICAS HL (full year)*

*Prerequisite: IB World History*

This course emphasizes several topics in United States history, but also integrates topics emphasizing the experiences of other nations and peoples in the Americas. The reading and evaluation of primary sources is central to this course, and students will learn how to evaluate and frame historical arguments. This course fulfills the requirements for IB History HL. **Please note: IB seniors who choose not to complete this HL history class must enroll in a standard or AP US History class in the senior year in order to fulfill the Country Day graduation requirement.**

#### *IB PSYCHOLOGY SL (full year) – Available as a Group 6 Elective*

*Prerequisite: Enrollment in the IB Program*

An introductory course on the scientific study of human behavior, with some reference to animal studies. This course focuses on three levels of analysis in psychology: the biological, the cognitive, and the sociocultural. Additionally, students are introduced to mental disorders and their treatment as they relate to these three levels. Several weeks in the second semester are spent conducting a replication of a published experiment in psychology. There is a focus on specific examples of primary research throughout the course.

#### *IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY SL (full year)*

*Prerequisite: Qualification based on grades in History, concurrent enrollment in Precalculus or higher math or enrollment in IB program*

The Information Technology in a Global Society (ITGS) course is the study and evaluation of the impact of information technology on individuals and society. It explores the advantages and disadvantages of the access and use of digitized information at the local and global level. ITGS provides a framework for students to make informed judgments and decisions about the use of IT within social contexts. This course fulfills the requirements of IB ITGS SL. **This course is also open to both IB and non-IB students in grades 11-12.**

### IV. Group 4: Sciences

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#### *IB BIOLOGY SL (full year)*

*Prerequisites: Chemistry I/Honors Chemistry, enrollment in the IB program*

IB students who wish to study biology as a Standard Level (SL) course take IB Biology during the junior or senior year. This course covers the core curriculum topics: biochemistry, cellular processes, genetics, biotechnology, evolution, ecology, and human physiology. Students perform a minimum of 40 hours of lab activities, some of which occur outside of class.

#### *IB BIOLOGY HL (first semester)*

*Prerequisites: IB Biology SL, enrollment in the IB program*

IB students who wish to study biology as a Higher Level course will take IB Biology SL during the junior year and an additional semester of biology during the fall of senior year. The core topics from junior year are covered in greater depth and additional topics (such as other human systems and plant biology) are introduced. Students also complete an additional 20 hours of lab work, some of which occur outside of class.

#### *IB CHEMISTRY SL (full year)*

*Prerequisites: Chemistry I/Honors Chemistry, enrollment in the IB program*

IB students who wish to study chemistry as a Standard Level course take IB Chemistry during their junior or senior year. The course covers the core curriculum topics: stoichiometry, atomic theory, periodicity, bonding, states of matter, energetics, kinetics, equilibrium, REDOX reactions, and organic chemistry. Emphasis is placed upon deep understanding of chemical concepts and the application of these concepts to novel situations. Assessments are of the IB style, using IB questions and grading schemes. Students perform a minimum of 40 hours of laboratory activities, some of which occur outside of class.

### **IB CHEMISTRY HL (first semester)**

**Prerequisites:** IB Chemistry SL, enrollment in the IB program

IB students who wish to study chemistry as a Higher Level course will take IB Chemistry SL during the junior year and an additional semester of chemistry during the fall of senior year. The core topics from junior year are covered in greater depth. Students also complete an additional 20 hours of lab work, some which occur outside of class.

## **V. Group 5: Mathematics**

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*In general, eleventh grade students in the IB diploma program follow within the math course curriculum for their area of study at the honors or regular level. In the 12<sup>th</sup> grade, they choose one of the following options. It is possible for accelerated math students to complete an IB course in 11<sup>th</sup> grade, but they must enroll in an AP math course during 12<sup>th</sup> grade to meet graduation requirements. Please note carefully the pre-requisites or co-requisites for each.*

### **IB APPLICATIONS SL (full year)**

**Prerequisite:** Enrollment in the IB program, completion of Precalculus

This course recognizes the increasing role that mathematics and technology play in a diverse range of fields in a data-rich world. As such, it emphasizes the meaning of mathematics in context by focusing on topics that are often used as applications or in mathematical modelling. To give this understanding a firm base, this course also includes topics that are traditionally part of a pre-university mathematics course such as calculus and statistics. In addition, students will complete a research paper investigating an area of mathematics commensurate with the level of the course.

### **IB ANALYSIS SL (full year)**

**Prerequisite:** Qualifying grade average from Precalculus, honors Precalculus, or Honors Algebra 2/Precalculus

This course recognizes the need for analytical expertise in a world where innovation is increasingly dependent on a deep understanding of mathematics. This course includes topics that are both traditionally part of a pre-university mathematics course (for example, functions, trigonometry, calculus) as well as topics that are amenable to investigation, conjecture and proof, for instance the study of sequences and series. In addition, students will complete a research paper investigating an area of mathematics commensurate with the level of the course.

### **IB ANALYSIS HL (full year)**

**Prerequisite:** AP BC Calculus

This course covers similar topics to Analysis SL but in greater depth and complexity. Topics include functions, trigonometry, advanced calculus, sequences and series, and proof by induction. This course will rely on students have a strong calculus foundation from AP BC Calculus. In addition, students will complete a research paper investigating an area of mathematics commensurate with the level of the course.

*Group 6 offerings may be found on the following page.*



## VI. Group 6: Fine Arts OR Other Elective

Offerings for the sixth subject area of IB at Charlotte Country Day School include the following:

Category	Course	Semester commitment
Fine Arts	IB Art	4 semesters (SL or HL)
Fine arts	IB Theatre	2 semesters (SL) or 3 semesters (HL)
Elective Social Studies	IB Information Technology in a Global Society ("ITGS"), or IB Psychology	2 semesters (SL only)
Additional language	Spanish, French, Latin, Chinese	4 semesters (SL or HL)
Additional science	IB Chemistry SL or IB Biology SL	2 semesters (SL only)

### **IB ART I (SL, HL) (full year)**

**Prerequisite:** Completion of level III in any Visual Art course, submission of a portfolio, and enrollment in the IB program

This IB course is the first of a two-year program structured according to the guidelines of the IB program. IB Art is designed to expose students to artistic traditions from around the world while allowing students to develop a personal visual art statement contained in a portfolio and research workbook. Students are expected to incorporate acquired skills in a variety of media and methods, apply critical thinking and problem-solving skills, and develop works with imagination and creativity. Art History, criticism, and aesthetics are an integral part of the curriculum.

### **IB ART II (SL, HL) (full year)**

**Prerequisites:** IB Art I

This course continues the work started in IB Art I and culminates with an exhibit of student work.

### **IB MUSIC I (SL) (full year)**

**Prerequisite:** Honors ensemble audition and enrollment in the IB program

This IB course is the first of a two-year program designed to meet the requirements of IB Music Standard Level. Over the two-year program, students will study music as researchers, creators, and performers while being simultaneously enrolled in a performing ensemble (band, orchestra, or choir). Students will develop their personal knowledge as a musician while learning to collaborate and partner with others through the exploration of diverse musical material. Students will learn about musical context and perception by listening to a wide range of music from different parts of the world. Through the study of varied musical cultures and time periods, students will develop an understanding of musical elements, including notation, terminology, context, form, and structure. Students will explore the connection of musical processes

while creating and performing music and maintaining a portfolio of their work.

### **IB MUSIC II (SL) (full year)**

**Prerequisites:** IB Art I

This course continues the work started in IB Music I and culminates with the completion of all three major IB assessments for IB Music Standard Level.

### **IB THEATRE ARTS SL (full year)**

**Prerequisite:** Successful completion of at least one upper school theatre class and production

IB Theatre Arts gives students the opportunity to actively engage in theatre as creators, designers, directors, and performers. Through researching, creating, preparing, presenting and critically reflecting on theatre, students gain a richer understanding of themselves, their community and the world. They learn about theatre from around the world, the importance of making theatre with integrity, and the impact that theatre can have on the world. It enables them to discover and engage with different forms of theatre across time, place and culture, promoting international-mindedness and an appreciation of the diversity of theatre. Major assessments will include an original solo theatre piece, a formal presentation on a theatre tradition, and creation and performance of an original and collaborative theatre piece. Students will also participate in at least one of the extracurricular CCDS productions. Students in IB Theatre Arts will be scheduled within existing theatre classes to be determined between the student and the IB coordinator. This course fulfills the requirements of IB Theatre Standard Level.

### **IB THEATRE ARTS HL (full year)**

**Prerequisites:** IB Theater Arts SL

This course builds upon the work completed in IB Theater Arts SL. In addition to that work, HL IB Theater Arts students will study theory and create an original solo piece based on their research. Involvement in the fall one-act plays is required.

**Other Group 6 elective offerings include the following  
(see Groups 3 & 4 for full descriptions):**

*IB INFORMATION TECHNOLOGY IN A GLOBAL SOCIETY SL  
(full year)*

*IB PSYCHOLOGY SL (full year)*

*IB CHEMISTRY SL (full year)*

*IB BIOLOGY SL (full year)*

# Physical Education Offerings

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The Country Day Physical Education requirement encourages students to experience the benefits and enjoyment of physical activity and to discover the value of personal wellness as part of daily living. An outcome of the program should be that students begin to make responsible and thoughtful decisions relative to their personal health habits and practices in high school, college and throughout their lives.

## SCHEDULED CLASS OPTIONS

### **CARDIO/CORE**

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This conditioning class is meant for all students: those who are athletes and those who want to become healthier and more fit. Cardio/Core involves both strength and cardio exercise, resulting in total body conditioning. This class is designed to target all major muscle groups. Free weights, resistance bands, med balls, kettle bells, steps, and BOSU balls will all be incorporated into the program. This class is focused on the five components of fitness each day (Cardiovascular Endurance, Muscular Strength, Muscular Endurance, Flexibility, Body Composition). Note that this course does not involve weight room activities.

### **STRENGTH TRAINING**

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This course is suitable for all levels (beginner through advanced), athletes and non-athletes. Students will be exposed to the basic upper and lower body lifts as well as advanced levels of strength and conditioning exercises. Strength Training involves weight training and some cardio fitness in every class.

### **LIFEGUARDING: ARC CERTIFICATION PROGRAM**

*Successful completion of this course qualifies as one of the two co-curricular credits needed each year*

This class is designed to teach the basics in water safety and the proper protocol when dealing with any emergencies around the water. Both traditional lecture style and hands-on training are incorporated to teach effective techniques to deliver prompt and accurate care to those in need. ARC Lifeguard Certification is awarded upon successful completion of the course and is valid for two years.

## AFTER SCHOOL OPTIONS

### **ULTIMATE FRISBEE (winter season, spring season)**

Students of all levels are welcome to play Ultimate Frisbee. The team practices three days a week with a focus on learning the basics of the game. The program's goals include learning throwing techniques, proper defense, motion offense, and other game strategies. The team has several scrimmages against local teams during the winter term. Credit is based on regular attendance of practices and games.

### **YOGA (fall, winter and spring seasons)**

This class meets three times a week for 75 minutes. Class activities fluctuate between basic yoga to more advanced power yoga techniques. The class focuses on stretching, strengthening and expanding physical limitations while becoming more attuned to mind, body and spirit. Credit is based on regular attendance.

### **ALTERNATIVE PHYSICAL EDUCATION (available fall, winter, and/or spring seasons)**

Options for alternative PE credit include sports training out of season, athletic programs followed outside of school, use of personal trainers and more. In order to receive credit, the following guidelines must be met: the activity must be supervised, must occur during the school year, have an aerobic component, and must occupy a **minimum of 40 hours** over the course of a season. To receive credit for year-round participation in a given sport, the student must try out for the Country Day sponsored team, if available in that sport.

### *PRESEASON CONDITIONING (fall, winter, and spring seasons)*

Pre-season conditioning opportunities are provided for the athlete who is serious about his or her physical preparation and is participating on at least one Country Day athletic team. Training opportunities vary based on scheduled team training days and times. Workouts contain sport-specific programming focused on injury prevention and optimal performance for that sport.

Students may participate in Preseason Conditioning only in the season immediately preceding their competitive season. *Students must have their preseason registration form (available from Coach Clark) approved by Coach Clark on or before the first Friday in September (fall), the first Friday in November (winter), or the first Friday in March (spring). Please note that NO CREDIT will be given for preseason applications after these deadlines.*

# Off-Campus and Summer Academic Opportunities

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Upper School students have opportunities to travel and study off campus and abroad, either through Country Day sponsored programs or affiliate programs, such as **School Year Abroad** and **Maine Coast Semester at Chewonki**. Students who have interest in other semester-away opportunities not listed below are free to pursue those as well. Country Day awards academic credit as able for work with most accredited programs, however GPA is not impacted by courses completed outside of Country Day. See the Director of Studies for more information.

## *Sister School Exchanges, Study Trips, and Service-Learning Experiences*

The International Studies office administers Sister School exchanges, study trips, and service-learning experiences. Country Day has longstanding partnerships with schools in Nantes, France; in Krefeld, Germany; in Nanjing, China. Upper School students visit these schools for approximately two weeks (usually in June) and host students from these schools for two weeks during the school year. Transcript credit is available to students who complete the requirements. Faculty-led experiences abroad take place during school breaks during the academic year and the summer. Exchanges, study trips, and service-learning experiences vary from year to year, and in addition to those listed above may include Italy, London, Costa Rica, and Morocco, as well as service opportunities in Hungary, India, Cuba, and South Africa.

## *School Year Abroad*

Offering a high school year in China, France, Italy, or Spain, this program is the only secondary-level program that allows students to live with a host family while earning Upper School graduation credits and preparing for selective United States colleges and universities. Founded in 1965 and sponsored by three New England boarding schools (Phillips Academy, Phillips Exeter Academy, and St. Paul's School), School Year Abroad (SYA) operates its

own schools in Rennes, France, in Zaragoza, Spain, in Beijing, China, and in Viterbo, Italy. SYA's program includes a nine-month home-stay with courses taught exclusively in the native language plus American core courses taught by faculty from the sponsoring schools.

## *Maine Coast Semester at Chewonki*

Founded in 1988, Maine Coast Semester at Chewonki, offers about 40 juniors from top day and boarding schools around the country the chance to spend half of their year on a 400-acre coastal peninsula, surrounded by salt marshes and tidal inlets and bordered with several miles of shoreline. The Afternoon Work Program affords the opportunity to work on an organic farm, chop firewood, and help with construction projects. The curriculum of includes traditional junior year courses as well as distinctive courses such as Environmental Issues, Natural History of the Maine Coast, and Art and the Natural World. Country Day and Chewonki coordinate the program of study for our students' year courses. One co-curricular credit is granted for the work program, and a fine arts studio credit is granted for Art and the Natural World. Charlotte Country Day School is pleased to be one of fourteen member schools.

## *Science Outreach Program*

We have many high school students who are passionate about science. The school has developed relationships with science professors at local institutions to give our students primary research opportunities over the summer. Interested students should speak to their current science teacher and get in touch with the Science Outreach Coordinator to inquire about possible placements. These experiences involve a large time commitment over the summer and are generally offered to rising seniors and juniors. The Science Outreach Coordinator can also help with applications to existing summer research programs across the nation. Students who take part in summer research are asked to present their work at the annual Science Symposium in the fall each year.

## *Summer School Programs*

Country Day does not offer summer general academic courses for credit. Summer courses taken at other institutions do not transfer to the Country Day transcript or factor into a student's GPA.



