

CDS Upper School Course Catalogue 2019-2020

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ENGLISH COURSES 2019-2020

Rhetoric and Composition 1: (Grades 9, 10) 2-semester course, 1.0 credit

Prerequisites: None

This course, which includes a wide variety of literary works and writing assignments, guides students in developing their critical reading and writing skills. They learn, review, and practice important concepts/skills in interpreting texts and writing for various purposes and audiences. Students will be introduced to the tenets of sound argument, including identifying appropriate and convincing evidence from a selection of fiction and nonfiction texts. They will learn how to find cogent facts from credible sources, how to organize and discuss facts, and how to cite sources. On a regular basis, students will also learn and apply grammatical concepts and words from vocabulary units to their writing. This course prepares students to enter Rhetoric and Composition 2 with the necessary confidence and skills to write sophisticated essays with less scaffolding provided by the teacher.

Rhetoric and Composition 2: (Grades 10, 11) 2-semester course, 1.0 credit

Prerequisites:

1. recommendation of CDS English teacher
2. for students new to CDS: recommendation of department based on evaluation of written response to writing samples from application

This course builds upon the skills developed in Rhetoric and Composition 1 by refining the practice of effective style, organization, argument, analysis, and research. Students apply their advanced critical reading and analysis skills to selected texts in multiple disciplines.

Advanced English Courses - One-Semester Course Selections

Advanced English Elective courses are open to students who have completed Rhetoric and Composition 2. Additional prerequisites are listed below individual courses.

Honors American Literature: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

American Literature speaks to the identity of the ever changing American people. Those shifting identities present powerful changes in literature and create a lasting impact on the American voice. Students will engage with the poetry, short stories, novels, and songs of the groups who raised their voices in a new literature, shifting American identity. Some of these include the Beat Generation, the Harlem Renaissance, and Hip Hop/Rap. We will read their anthems to a new direction, listen to recordings and commentaries, and recreate “Coffee House” experiences. We will also view the influence their music and poetry has on the world in both the past and in the present.

Biosocial Ethics and Motives Courses:

Team-taught by English and science teachers, BEAM courses are interdisciplinary semester courses that explore the relationship between scientific engagement and social responsibility— exploring what is ethical and just in terms of life rights, environmental issues, biological concepts, social constructs and medical rights. Students will investigate topics independently and in groups and develop and share informed opinions based on case studies, data analysis, laboratory investigation, research, literature, and through discussion, reflections and debate.

Students may take either or both BEAM courses. The fall course is not required for the spring course. The student selects whether the first BEAM class taken is for science or English credit. If a student chooses to take both of these semester courses, one course must be taken as science and one as English. Beam courses may not be repeated for credit.

Biosocial Ethics and Motives: Human Health (Grades 11, 12) 1-semester course, Fall, 0.5 Credit (science or English)

See Course Overview Above

Biosocial Ethics and Motives: Environment and Resources (Grades 11, 12) 1-semester course, Spring, 0.5 Credit (science or English)

See Course Overview Above

Creative Writing: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

In this course, students will develop their confidence and skills to create effective, satisfying stories regarding plot, characterization, setting, dialogue, theme, and pacing. Students will engage in guided writing exercises, sharing their writing, studying/emulating professional writers' techniques, and reading specific suggestions for crafting elements of fiction. They will respond to prompts, submit manuscripts, and receive feedback from the teacher and also as they participate in workshops discussing the strengths and making suggestions regarding each other's strongest writing piece. Students will both read/annotate and create many pieces of fiction. Three of their original pieces will be polished—ready to submit to our school's literary magazine and other publications.

Victorian Ghosts and Monsters: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

In this course we will read novels like *Dracula*, *Strange Case of Dr. Jekyll and Mr. Hyde*, and *A Christmas Carol* to examine how and why cultures create monsters. We'll ask each book a series of questions: What do these monsters represent? Why do we keep telling these stories? What can we learn from these stories about inclusion/exclusion?

Wit Lit: Reading, Appreciating, and Writing Humorous Works: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

Humor is a powerful tool of persuasion that requires intellectual pursuit of a topic and a sophisticated delivery (in regard to tone, surprise, pacing, and originality/specificity). In this course, students will read, study, discuss, and emulate a variety of humorous fiction, nonfiction, drama, and poetry. They will practice many *forms* and *techniques* of humor, simultaneously delighting and persuading. Peer-editing and class workshops are crucial parts of this course, as students must test-drive their original pieces before improving them. By the end of the semester, students will be armed with at least three polished, hilarious pieces, and they will read their favorite piece at a casual lunch-time gathering.

Film and Literature: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

The study of film opens the door to understanding the world and self. Film paints the broadest pictures of humanity and the smallest snapshots. Through analysis and research of film techniques, study of directorial choices, and synthesis of theme and context, students will examine films from multiple genres and time periods. Student discussion supported by specific references to film technique, choice, or theme constitutes an essential element of class. Students will study both classic and contemporary films and

have the opportunity to make selections for individual study and research. During and after viewing, students will write argumentative, interpretive, and creative analyses of films. This course includes multiple films, short stories in comparison to the films developed from them, and theatre viewing when appropriate.

The History of Mystery: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Rhetoric and Composition 2

If you turn on the TV today, you're likely to find a variety of mystery stories -- one of an endless array of Law and Order or CSI shows, as well as sensational true crime stories. But that has not always been the case. Mystery is a fairly new genre, originating in the nineteenth century. This class will look at the development of mystery stories, starting with Edgar Allan Poe's "Murders in the Rue Morgue" and Sir Arthur Conan Doyle's *The Hound of the Baskervilles*, stopping over in the golden age of mystery with Agatha Christie's *Murder on the Orient Express*, and ending with contemporary television and movies. Students will write essays that analyze how the novels reflect moral and cultural shifts.

Gender and Literature: (Grades 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites: Rhetoric and Composition 2

American author Nathaniel Hawthorne famously complained about the popularity of female writers, describing them as a "mob of scribbling women." Indeed, many women have written under male or gender-neutral pseudonyms to avoid such stereotyping and to ensure that their work would be taken seriously. Using texts from a variety of genres, we will consider how gender affects our perceptions and preconceptions of a work of literature.

Honors Ancient Western Philosophy: (Grades 11, 12) 1-semester course, TBD, 0.5 credit English or Social Studies

Prerequisites:

1. Rhetoric and Composition 2 and Global Studies

AND

2. recommendation of current social studies teacher

At its heart, the practice of philosophy is deeply concerned with the question of identity and being, either at an individual, collective, or national level. In their pursuit of answers to this question, the Ancient Greeks created the conceptual underpinnings of not only their own society but also the entire western world. In an effort to understand the relevance of this fact in modern society, this course will explore the major works and history of western philosophy, beginning with the pre-Socratic Greeks and continuing through the fall of the Roman Empire. Students will analyze important primary texts of the Ancient world, considering them in terms of both their own context and in relation to the contemporary world. This class will encourage the development of critical reading and writing skills through the use of class discussions, historical research, and analytical writing.

Advanced English Courses - Two-Semester Course Selections

Advanced English Elective courses are open to students who have completed Rhetoric and Composition 2. Additional prerequisites are listed below individual courses.

Honors Literature of Civic Life: American Journalism: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. completion of Rhetoric and Composition 2 or advanced English course with minimum of grade **85** or higher or teacher approval

This course will permit students to pursue their individual interests in special column writing, investigative reporting, formatting and design, photography, and advertising. Students will practice the tenets of effective interviewing, reportage, and journalistic style as they write articles intended to uncover the truth about real-world problems, and controversies. They will find and pursue stories about which they can write with seriousness and passion, contributing articles to the school newspaper, *The Scratching Post*. Students will critically analyze the mass media's coverage of current events on local, national, and global levels and learn to regard with healthy skepticism information they receive from the web, the television, and the radio; they will confront their own hindrances to critical thinking as they challenge the assumptions, inferences, and opinions in both subjective and objective reportage. Finally, students will further hone their voices and styles by critically analyzing the work of Pulitzer Prize-winning journalists and other non-fiction writers like Truman Capote, Hunter S. Thompson, and Eric Schlosser.

Skilled students who have demonstrated success with the journalistic form, a dedication to growing Carolina Day School's newspaper program, and a desire to take on leadership roles can apply to be editors and publication designers.

AP Literature and Composition: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. minimum average of **92** in current English course
- OR
2. recommendation of current English teacher for students with a strong commitment to academic work equivalent to a college-level English course

In this course, students read and discuss literature as they closely examine and support their own ideas with specific details. Almost daily, they defend their critical thinking with textual support in small literary circle groups, full class discussions, or analytical writing. Class study revolves around thematic concepts and close textual study of wide ranging literature, including student choice novels. Some topics include: Knowing Self, The Pivotal Moment, Love, Exile, and Environment. Throughout the year, Advanced Placement students participate in outside reading, creative assessments, weekly instruction, and/or practice in stylistic and analytic writing for Free Response Questions on the AP English Literature Exam. Blending these elements of reading, discussion, analysis, and practice, provides opportunities for

students to consistently increase sophistication in all these skills. *Students enrolled in this course are required to take the AP Exam in the spring.*

AP English Language and Composition: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. minimum average of **92** in current English course
- OR
2. recommendation of current English teacher for students with a strong commitment to academic work equivalent to a college-level English course

This writing-intensive course is for students with a high level of interest in the study of language and writing. The course challenges students' critical thinking skills through rigorous rhetorical analysis of non-fiction texts, refinement of effective argumentative strategies, and engagement with current social issues. The course will introduce students to the practical application of sound logic and reasoning as they grapple with both classic and contemporary texts as well as their own arguments. Students will prepare for the AP English Language and Composition exam in May by developing the skills of critical reading, analysis, synthesis, and argument. *Students enrolled in this course are required to take the AP Exam in the spring.*

FINE AND PERFORMING ARTS COURSES 2019-2020

Two-Semester Courses

Studio Art: (Grades 9, 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites: None

Students who take Studio Art learn the basics of drawing and painting, including both one and two-point perspective, shading, portraits, assessing composition, and using a grid to help capture correct proportions. Once students master the basics, they are encouraged to explore their own interests. Students are exposed to different media such as pencil, pen and ink, acrylic, oil pastels, watercolor, chalk pastels, oil sticks, and collage. Students work at their own pace, with the emphasis on quality rather than meeting deadlines. Homework is assigned on a weekly basis. *Note: This course may be repeated for credit.

Honors Advanced Studio Art: (Grades 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. consistent success in Studio Art, with a final grade of **90** or higher

AND

2. invitation of the instructor

Students who are truly inspired and wish to focus more on their artistic skills will be invited to join the Advanced Studio Art Honors class. With an emphasis on personal growth and exploring different media,

students can work on producing pieces suitable for a portfolio or just make time for exploring their creativity each day. Students are assigned themes to start and are then encouraged to find areas of interest to explore on their own, with guidance along the way. Field trips and drawing from life help round out the artist's skills. Homework is assigned on a weekly basis. *Note: This course may be repeated for credit.

Pottery: (Grades 9, 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites: None

Students who take Pottery learn the basics of working with clay; they are taught how to make projects on the potter's wheel, by hand, and they learn different options for adding decoration. Students will complete projects before the end of the semester, interpreting them as creatively as possible. These projects are intended to help them learn the limits of the clay and how to push those limits. Students can achieve true mastery of the wheel, with regular practice; it is remarkable how rewarding eating out of a bowl you've made from a lump of clay can be! *Note: This course may be repeated for credit.

AP Art History: (Grades 11, 12) 2-semester course (Grade 11, 12), 1.0 credit, social studies or art

Prerequisites:

1. minimum average of **88** in previous history course

OR

2. current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

In this course, students will develop an understanding of major forms of artistic expression from the past and the present, including architecture, sculpture, painting, and other media. They will examine works from both historical and cultural perspectives and acquire the ability to objectively and critically analyze artworks, in order to understand the time and place in which they were created. Through their studies, students will learn to appreciate works of art from other cultures and understand the ways that art history, a discipline emphasizing social context, is a field that makes connections between many other disciplines.

Art and Design for Yearbook (for some second or third year Yearbook students) .5 art credit, .5 elective credit

Prerequisites:

1. successful completion of one year as a Yearbook student **AND**
2. recommendation of Yearbook advisor **AND**
3. willingness to take on specific responsibility as a staff leader

Students who have one year of demonstrated success as yearbook team members are eligible to earn .5 credit in art in their third year of yearbook. Earning this credit will be determined by learning and refining skills in the following areas:

- apply understanding of color, form, and space to unique designs;
- use a DSLR camera to achieve a well-balanced photograph;
- curate photographs based on lighting, color, and clarity;
- use Photoshop software to create, correct, and enhance digital images;
- use graphic design software to plan, compose, and edit spreads that include both images and text
- analyze and assess their peers' design and photography;
- work closely with other peer leaders to move through the stages of designing book theme and cover design;
- coach inexperienced peers in development of their skills;
- create and maintain a welcoming and collegiate atmosphere among all staff;
- participate in yearly yearbook conference(s) to better their design skills
- undertake extra responsibility as Editors, Assistant Editors, Image Managers, or similar positions to apply these art skills, including giving evening and weekend hours in service of the yearbook.
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One-Semester Courses

Theatre: One-Act: (Grades 9, 10, 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites: None

In this course, students in this class rehearse and perform a one-act play. The play is chosen to fit and to challenge the entire class. Plays may be adaptations, original student works, or class collaborative works. Most students choose to perform; however, they can choose to serve as stage managers or tech crew. The one-act is performed at the North Carolina Theatre Conference Annual One-Act Festival and at CDS as well. While working on the play, students focus on ensemble acting technique, individual craft, and on freeing the creative impulse. *Note: This course may be repeated for credit.

Theatre: Advanced One-Act: (Grades 10, 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites:

1. Theatre: One-Act

Students opting for Advanced designation take on increasingly more complex roles, provide leadership, and explore advanced techniques while working on the One-Act. *Note: This course may be repeated for credit.

Theatre: Technical and Production: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites: None

Students develop the skills to execute theatrical scenery and lighting with an emphasis on lighting in the fall section. The class first collaborates on building the set for the Upper School One-Act. Students then move to executing the lighting design for the Upper School One-Act, Lower School musical, Middle School musical, Middle School winter concert and Upper School Winter Concert. As the semester

progresses, students take on more responsibility for conceptualizing and assisting in the lighting design process.

Theatre: Acting and Performance: (Grades 9, 10, 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites: None

In this semester-long class, students will explore the craft of acting for the stage. The class will engage traditional and contemporary acting techniques and methods with the goal of both freeing and disciplining the creative spirit. Students will learn to analyze characters for performance and use the analysis to create physical, vocal and emotional manifestations of characters. Students will gain practice in effectively communicating to an audience by performing scenes, monologues, and improvisations within the class setting and for invited audiences.

Instrumental Ensembles: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites:

1. ability to play a musical instrument at an intermediate level

Instrumental Ensemble is a semester-long course designed for students to explore music from different styles. This course is for musicians who are proficient on a musical instrument and have previous experience playing in an ensemble.

Advanced Band: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites:

1. ability to play a musical instrument at an advanced level
2. register by audition and permission of instructor.

Advanced Band is a semester-long course designed for students who have extensive experience performing music from many different styles, especially jazz combo and rock band. This ensemble may be taken in conjunction with Instrumental Ensemble.

Beginning Guitar: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites: none

An introduction to the guitar through the study of notation, basic hand positions, and chord formations for the beginning to intermediate musician. This class will study a variety of performance styles along with the exploration of theory, technique, and interpretation as it relates to the guitar.

Intermediate Guitar: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites: previous experience playing guitar

A continuation for the student who has previous experience on the guitar. This class will include the study of notation, basic hand positions, and chord formations for the intermediate to advanced musician. A variety of performance styles along with the exploration of theory, technique, and interpretation as it relates to the guitar will be studied in depth.

Theatre: Stage Combat: (Grades 9, 10, 11, 12) 1-semester course, Spring, 0.5 credit

Prerequisites: None

Stage Combat is a combination of martial art, dance, and acting technique. In this semester-long course, students develop the skills necessary to safely and effectively perform unarmed and armed stage fight choreography. Techniques include single rapier, rapier and dagger, smallsword, quarterstaff and unarmed. In addition to the partnering skills of the choreography, students learn care and maintenance of theatrical weapons, choreography notation, and physical storytelling.

Theatre: Advanced Stage Combat: (Grades 10, 11, 12) 1-semester course, Spring, 0.5 credit

Prerequisites:

1. Theatre: Stage Combat

Students in this semester-long course, will continue to build and hone their skills as they learn additional weapon forms and advanced techniques and choreography. *Note: This course may be repeated for credit.

Theatre: Playwriting: (Grades 10, 11, 12) 1-semester course, Spring, 0.5 credit

Prerequisites:

1. Successful completion of R & C 1

Through a series of graduated and differentiated writing exercises, students will gain experience with the varied challenges and possibilities of writing for the stage. All work will be read aloud in class in a workshop atmosphere. With the successful completion of each exercise, students develop the skills necessary to complete a short one-act play as the final assignment. Students may have the opportunity to hear their completed plays read aloud in a public setting. Credit for this course is awarded as an art credit.

MATHEMATICS COURSES 2019-2020

Integrated Math 1: (Grade 9) 2-semester course, 1.0 credit

Prerequisites: None

Students will investigate, discuss, formalize, and apply (in that order) concepts across the strands of algebra, geometry, discrete math, probability, and statistics. In this first course, students focus on identifying, extracting, and describing patterns-- patterns of change, patterns in data, patterns in shape, patterns in chance. We will give particular attention to linear, quadratic, and exponential change and associated functions. A focus on authenticity and problem-solving makes for a more accessible and more meaningful student experience.

Integrated Math 2: (Grades 9, 10) 2-semester course, 1.0 credit

Prerequisites:

1. satisfactory completion of IM1 that suggests success in IM2
2. The math department will advise student and parent(s) when they recommend the student retake the previous math to improve understanding and skills before moving to this level.

Students continue their study of algebra, geometry, and statistics, using a problem-centered, connected approach. Functions and algebraic representations of geometric concepts are the principal topics of study. We focus on mathematical modeling as a methodology for approaching the solution to problems. Students will explore operations on algebraic expressions and apply mathematical properties to algebraic equations. They will problem solve using equations, graphs, and tables and investigate linear relationships, including comparing and contrasting options and decision-making using algebraic models. Topics from two-dimensional geometry will be reinforced, including area and perimeter, the Pythagorean Theorem and its applications, and geometric proportion. Finally, students will be introduced to mathematical probability to reinforce use of fractions and numerical modeling. Technology used in this course includes graphing calculators and various software applications.

Enriched Integrated Math 2: (Grades 9, 10) 2-semester course, 1.0 credit

Prerequisites:

1. completion of CDS Middle School Enriched Integrated Math 1 with a strong understanding and high level of performance in IM1 Enriched and on the math department's end-of-year placement assessment
2. the supportive recommendation from Integrated Math 1 Enriched teacher
3. The department is also willing to support a student transitioning from IM1 to Enriched IM2 if there is ample evidence and support for the student's ability to succeed in a faster paced and more challenging course.

OR

1. for students new to CDS: recommendation of US math department based on CDS math department placement assessment and a look at the student's grades from IM1 and standardized testing in math.

Students in this course study similar topics to those explored in the regular Integrated Math 2 course; real-world modeling and synthesizing different areas of mathematical study are the major emphases. In this accelerated course, students will be expected to work independently and research mathematical methods to a much greater extent than in the regular level. Because of the faster pace, many of the topics that are reinforced in the regular level Integrated Math 2 course will not be reinforced at the enriched level. Students are expected to possess a general mathematical fluency and to have a solid foundation in such basic skills as graphing, simplifying algebraic expressions, two-dimensional geometry, and solving one-step and multi-step equations.

Integrated Math 3: (Grades 10, 11) 2-semester course, 1.0 credit

Prerequisites:

1. satisfactory completion of IM2 that suggests success in IM3
2. The math department will advise student and parent(s) when they recommend the student retake the previous math to improve understanding and skills before moving to this level

OR

1. for students new to CDS: recommendation of US math department based on CDS math department placement assessment and a look at the student's grades from IM2 and on standardized testing in math.

The third course in the Integrated Math series deepens students' understanding of core topics in algebra, geometry, and statistics. Students will explore mathematical proof, equations and inequalities in two variables, polynomial functions, logarithms, and trigonometric functions. They will apply critical thinking, creative problem solving, and mathematical modeling to real world scenarios, then explore the non-contextual symbolic logic which comprises the mechanics of the language of mathematics. Concepts from the previous Integrated Math courses will be revisited and expanded, and new skills are built upon that prior understanding and practice. Technology, including graphing calculators and computer simulations, is an integral part of the problem solving tools and the curriculum of this course.

Honors Integrated Math 3: (Grades 10, 11) 2-semester course, 1.0 credit

Prerequisites:

1. completion of CDS Enriched Integrated Math 2 with a strong understanding and high level of performance in IM2 Enriched
2. the supportive recommendation from Integrated Math 2 Enriched teacher
3. The department is also willing to support a student transitioning from IM2 to Honors IM3 if there is ample evidence and support for the student's ability to succeed in a faster paced and more challenging course.

OR

1. for students new to CDS: recommendation of US math department based on CDS math department placement assessment and a look at the student's grades from IM2 and standardized testing in math.

Students in this course study similar topics to those explored in the regular Integrated Math 3 course; real-world modeling and synthesizing different areas of mathematical study are the major emphases. In this honors-level course, students will be expected to work independently and research mathematical methods to a much greater extent than in the regular level. Because of the faster pace, many of the topics that are reinforced in the regular level Integrated Math 3 course will not be reinforced at the enriched level. Students are expected to possess a strong general mathematical fluency, to have a solid foundation in such topics as exponents, fractions, graphing functions, solving linear and nonlinear systems of equations with two variables, solving linear and quadratic equations, and factoring algebraic expressions.

Advanced Geometry: (Grades 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Successful completion of Integrated Math 2

This course emphasizes geometry as it relates to the world around us by using the properties and relationships of points, lines, angles, triangles and circles. It will also touch on significant aspects of Euclidean geometry, including logic, proof and classic construction. This course is an elective and can be taken concurrently with IM 3, Precalculus, Statistics and Calculus.

Advanced Functions and Modeling: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Integrated Math 3
2. The math department will advise student and parent(s) when they recommend the student retake the previous math to improve understanding and skills before moving to this level.

OR

1. for students new to CDS, recommendation of department based on CDS math

department placement assessment and a look at the student's grades from IM3 and standardized testing in math.

This course uses group work and discussions to explore math that applies directly to real-world situations. Many of the theoretical topics learned in Integrated Math are extended into real-world applications. We dig deeper into math that will help students in their adult lives. Topics studied include analytical problem solving; application of chance and probability; basics of statistical analysis, including central tendency and the spread of data values; illustrating various forms of data, including data that is disorganized and not perfectly related. These skills and understandings are particularly applicable to questions arising at home, in business, engineering, consumer issues, public policy, and scientific investigation. Calculator and computer technology are used regularly for instruction, investigation and assessment.

Statistics: (Grade 12, Grade 11 may take as an elective in addition to a mathematics class) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Integrated Math 3 or (Algebra 2 and Geometry or Advanced Functions and Modeling), along with the recommendation of the student's current teacher.
2. The math department will advise student and parent(s) when they recommend the student retake the previous math to improve understanding and skills before moving to this level.

OR

1. for students new to CDS, the recommendation of the department based on the departments assessment of the student's performance on CDS math department placement assessment, previous success in math, and standardized test scores

Data is present in the media, medicine, politics, and all courses of study. Drawing conclusions from that information and being able to make predictions based on data are essential skills, both in everyday life and for future careers. Statistics is the study of patterns and variability in data and the process of analyzing and applying mathematical models in order to draw conclusions and make informed decisions from that analysis. Among the topics studied are univariate data analysis, experimental design, probability, inference, correlation, and regression. Students learn not only to interpret data, but also to communicate analyses and models effectively for others to understand.

AP Statistics: (Grade 12, Grade 11 may take as an elective in addition to a mathematics class) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Honors Integrated Math 3 (or Honors Algebra 2 and Honors Geometry) with a strong understanding and high level of performance
2. ample evidence and support for the student's ability to succeed at the AP level in a faster paced and more challenging college-level course, along with the supportive recommendation of the student's current teacher in the course he/she is currently taking.

3. The math department will advise student and parent(s) when they recommend the student take Statistics or Advanced Functions and Modeling over AP Statistics.

OR

1. for students new to CDS, the recommendation of the department based on the departments assessment of the student's performance on CDS math department placement assessment, previous success in math, and standardized test scores

Statistics is about variation and applying models in order to draw conclusions and make predictions from data. AP Statistics consists of data exploration and analysis, experimental design, probability, and statistical inference. Students taking AP Statistics need to have strong quantitative reasoning ability and skill as well as mathematical maturity. This course emphasizes both analysis and interpretation of predictions and models. The AP Statistics course includes all topics that are on the AP Exam. *Students enrolling in this course are required to take the AP Exam in the spring.*

Precalculus: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Integrated Math 3 or Honors Integrated Math 3 (or Algebra 2 and Geometry)
2. The math department will advise student and parent(s) when they recommend the student take Advanced Functions and Modeling instead of precalculus

OR

1. for students new to CDS, the recommendation of the department based on the departments assessment of the student's performance on CDS math department placement assessment, previous success in math, and standardized test scores

Precalculus focuses on the fundamentals of mathematical modeling and problem solving by exploring underlying mathematical concepts and the ways in which we can apply algebra and trigonometry as tools for solving problems. Students will extend their foundational algebraic knowledge and understanding, conduct a thorough investigation of algebraic functions and their applications, and study trigonometric functions and analytic trigonometry. Students advance their abilities in problem solving, algebraic manipulation, use of calculators, and representation/analysis of mathematical models through graphing. This course provides the foundation for Calculus 1 and college-level math.

Honors Precalculus: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Honors Integrated Math 3 (or Honors Algebra 2 and Honors Geometry)
2. The math department will advise student and parent(s) when they recommend the student take Precalculus or Advanced Functions and Modeling instead of Honors

Precalculus

OR

1. for students new to CDS, the recommendation of the department based on the departments assessment of the student's performance on CDS math department placement assessment, previous success in math, and standardized test scores

Honors Precalculus moves at a faster pace and goes into greater depth than Precalculus. Students must have a very strong understanding of concepts and skills gained in previous courses. This course focuses on the fundamentals of mathematical modeling and problem-solving by exploring underlying mathematical concepts and the ways in which we can apply algebra and trigonometry as tools for solving problems. Students will extend their foundational algebraic knowledge and understanding, conduct a thorough investigation of algebraic functions and their applications and study trigonometric functions, analytic trigonometry, polar coordinates, and parametric equations. Students advance their abilities in problem solving, algebraic manipulation, use of calculators, and representation/analysis of mathematical models through graphing. This course provides the foundation for AP Calculus BC and college-level math.

Calculus 1: (Grade 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of a Precalculus course

AND

2. recommendation of previous instructor

OR

1. for students new to CDS, the recommendation of the department based on the departments assessment of the student's performance on CDS math department placement assessment, previous success in math, and standardized test scores

This course is equivalent to most first-semester college calculus courses. Units of study include limits, differentiation of several classes of functions, applications of differentiation such as modelling, the Fundamental Theorem of Calculus, vector/parametric calculus and operations, and additional introductory topics in differential calculus, as appropriate. This class is designed for students who either want an exposure to calculus and its applications or who want preparatory course before they take calculus in college. It is not intended to be as rigorous or comprehensive as the AP Calculus BC course. However, juniors enrolled in this course may take AP Calculus BC the following year if they meet the prerequisites.

AP Calculus BC: (Grade 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Honors Precalculus

AND

2. recommendation of previous instructor

This course is equivalent to most first-year (two semester) college calculus courses. Students will study a variety of topics, including limits, differentiation of several classes of functions, basic methods of integration, applications of both differentiation and integration, the Fundamental Theorem of Calculus, a variety of integration techniques, the calculus of infinite sequences and series, parametric/polar calculus, and vector calculus. Students who successfully complete the AP Calculus BC exam usually receive college calculus credit. The BC course is recommended for students who have strong mathematical aptitude and want to be exposed to a rigorous, fast-paced calculus curriculum. *Students enrolling in this course are required to take the AP Exam in the spring.*

PHYSICAL EDUCATION COURSES 2019-2020

*All students are required to complete **one full credit** in physical education **by the end of their sophomore year**. The following courses/activities are methods to accomplish this. Note - This credit can only be fulfilled through on-campus sports or classes, not through outside activities such as dance, community sports leagues, etc.*

Fitness, Games, and Wellness: (Grades 9, 10) 2-semester course, meets approximately every other day, 1.0 credit

Prerequisites: None

Students focus on strength training and cardiovascular training using *various* training strategies during this course. As they learn the basics of strength and conditioning, students will create their own fitness plans. In addition, students are introduced to a wide variety of sports, where they learn the rules, regulations, and strategies for each discipline. When appropriate, this class will work with and teach students in our lower grades. During our Wellness and Outdoor unit, students are introduced to Yoga, Pilates, and Nutrition.

Interscholastic Sports for PE Credit: (Grades 9, 10) 1.0 total credit

Prerequisites: None

The Carolina Day School Athletic Program is participatory, competitive, and appropriate for each school division. In each of the disciplines listed below, students develop sport-specific skills, as well as time management strategies. A season of participation on one of the teams listed below will count as one half of the required PE credit. Students may earn up to **one** PE credit through Interscholastic Sports.

Baseball (boys)

Golf (boys/girls)

Tennis (boys/girls)

Basketball (boys/girls)

Volleyball (girls)

Track and Field (boys/girls)

Cross-Country (boys/girls)

Soccer (boys/girls)

*CDS Ski Team (boys/girls)

Field Hockey (girls)

Swimming (boys/girls)

*Three seasons of participation on the Ski Team will count as one half of the required PE credit.

Tae Kwon Do: (Grades 9, 10, 11, 12), 2-semester course, meets approximately every other day, 1.0 credit

Prerequisites: None

This course is based on the traditional instruction of taekwondo, a Korean martial art. Traditional instruction emphasizes physical, emotional, and spiritual growth. The focus for this course is on the proper execution of forms, the perfection of self-defense techniques, and the development of the whole person. In addition to forms, blocking, and kicking techniques from taekwondo, students will learn self-defense skills from hapkido and judo. Sparring is non-contact/light contact. This course may be taken for 1 physical education or 1 elective credit. This course must be taken for the full year and may be repeated for elective credit.

SCIENCE COURSES 2019-2020

Freshman Year: Biology

Students are required to take Biology during the 9th grade year.

Human Biology: (Grades 9; 10 if transferring in w/o Biology) 2-semester course, 1.0 credit

Prerequisites: None

Human Biology is a year-long course in which students learn the major concepts of biological thought through a study of the biology of humans. The content of the course is organized around five major units: The Nature of Science, Energy and Metabolism, Cancer and the Cell Theory, System Function, and Infectious Disease. Topics within these major concepts include lessons in exercise physiology, human evolution, diabetes, cancer, stem cells, infectious disease, enzyme action, and cardiovascular anatomy. Students are in the laboratory a minimum of once a week and labs include organic compound identification, muscle action, osmosis, DNA fingerprint analysis, enzyme function, heart structure and function, cancerous and normal cell structure, Koch's Postulates, and bacterial populations comparison.

Sophomore Year: Chemistry

Students are required to take Chemistry during the 10th grade year.

Chemistry: (Grades 10; 11 if transferring in w/o Chemistry) 2-semester course, 1.0 credit

Prerequisites: None

General Chemistry is a year-long course designed to help students discover the interconnections between the chemical elements, nature, and their everyday lives. The course involves a large number of laboratory investigations, mathematical modeling of chemical systems, computer simulations, and the exploration of different chemical careers. Major concepts that are explored include the nature of matter; atoms, molecules and the states; chemical reactions; thermochemistry; equilibrium; acid/base theory; and oxidation reduction. Additionally, students will be introduced to organic and nuclear chemistry.

Additional Science Courses:

Physics: (Grades 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Human Biology or equivalent lab science course

AND

2. successful completion of OR concurrent enrollment in Integrated Math 2

In this course, students will investigate patterns and phenomena in the physical world and the general principles that govern our universe. Students will collect and analyse data to develop models for these patterns and then apply their understanding to make predictions and design choices for a variety of authentic and open-ended challenges. An emphasis will be placed on data analysis, modeling (mathematical, graphical, diagrammatic, computational), problem solving, creation, and application. Topics will vary upon student interest but may include kinematics, dynamics, waves, electricity and magnetism, circuits, and modern physics.

AP Physics 1: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of OR concurrent enrollment in Honors Precalculus

OR

2. successful completion of Precalculus with a grade of 90 or above

This course explores a wide range of topics in both classical and modern physics with a strong focus on Newtonian mechanics, including a study of kinematics, dynamics (translation and rotation), work, and energy. Other units include wave mechanics, and electrical circuits. Lectures, reading the textbook,

solving problems, laboratory sessions, and demonstrations of physical concepts are used to enhance the understanding of physics. Class discussions, personal reflections, and observations connect the physics in the world to the physics learned in the classroom. AP Physics is a mathematically rigorous survey course that is equivalent to a first-semester course in algebra-based college physics such as that required for pre-med students. This course is intended for students with a prior physics class, or as a first-year physics course for students who meet the necessary prerequisites. *Students enrolled in this course are required to take the AP Exam in the spring.*

AP Chemistry: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Chemistry

Advanced Placement Chemistry explores the fundamental principles and laboratory techniques that are introduced in the first year of a college chemistry class. In this class we will expand on many of the topics that were first introduced in Introductory Chemistry as well as covering many new concepts in depth. After taking this course, students should be well prepared to tackle the most challenging topics in a general chemistry college course as well as being prepared to take the demanding, national AP Exam that occurs in May. The prerequisite for taking this class is successful completion of Introductory Chemistry which is generally offered in the sophomore year. *Students enrolled in this course are required to take the AP Exam in the spring.*

Astronomy and Space Science: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Human Biology and Chemistry

In this course, we will spend the year humbling ourselves in the study of the cosmos. The course will cover topics such as the history of astronomy and science, the nature of light, observational astronomy, gravity, the life cycle of stars (including supernovae and black holes), the study of galaxies and cosmology, planets both in and out of the solar system, space exploration and colonization, astrobiology and the search for extraterrestrial life, and a touch of particle physics/quantum mechanics. This course will not provide students with expertise in the subjects discussed above, but rather informed familiarity. Students will also be required to visit the Pisgah Astronomical Research Institute (PARI) in Balsam Grove, NC for several nighttime observations and/or conducting research. Additionally, students will have opportunities to use PARI resources remotely control PARI's 12-meter radio telescope for use during labs and projects.

AP Biology: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of **one** biology and **one** chemistry course
2. recommendation from recent English and social studies teachers to support that the student has reading skills appropriate to this advanced placement course which requires

significant amounts of reading (43 chapters) and the ability to critically analyze what is read.

AP Biology is a rigorous survey course designed to help students develop a conceptual framework for modern biology and an in-depth understanding of concepts in biology, in order to help them gain an appreciation of science as a process. Students will develop the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. The major themes of study are molecules and cells, heredity and evolution, and organisms and populations. *Students enrolled in this course are required to take the AP Exam in the spring.*

Biosocial Ethics and Motives Courses:

Team-taught by English and science teachers, BEAM courses are interdisciplinary semester courses that explore the relationship between scientific engagement and social responsibility—exploring what is ethical and just in terms of life rights, environmental issues, biological concepts, social constructs and medical rights. Students will investigate topics independently and in groups and develop and share informed opinions based on case studies, data analysis, laboratory investigation, research, literature, and through discussion, reflections and debate.

Students may take either or both BEAM courses. The fall course is not required for the spring course. The student selects whether the first BEAM class taken is for science or English credit. If a student chooses to take both of these semester courses, one course must be taken as science and one as English. Beam courses may not be repeated for credit.

Biosocial Ethics and Motives: Human Health (Grades 11, 12) 1-semester course, Fall, 0.5 Credit (science or English)

See Course Overview Above

Biosocial Ethics and Motives: Environment and Resources (Grades 11, 12) 1-semester course, Spring, 0.5 Credit (science or English)

See Course Overview Above

Ecology: Human Impact of Ecosystem Change: (Grades 10, 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites:

1. successful completion of Human Biology or equivalent lab science course

The class will cover the basic principles of ecosystem structure and function, but will focus on three major cycles: carbon, water, and energy (many forms), and how these systems have been influenced by human activity. Changes to the carbon, water, and energy cycles elicit responses in physical and biological systems, as well as in human systems (economics, sustainable, energy systems for example). The

emphasis in this course is on investigating ways to balance human needs with sustainable practices. Mapping skills and GIS technology will be incorporated. Students will be required to conduct a research project for this class. Participation in field trips is mandatory, as well as participation in attending at least one conference or presentation.

Earth Systems Science: Climate and Weather: (Grades 10, 11, 12) 1-semester course, Spring, 0.5 credit

Prerequisites:

1. successful completion of Human Biology or equivalent lab science course

This is an introductory course on the dynamics of weather and climate and climate change. Students will learn to better understand short-term weather patterns and climate change in terms of both geological and human time scales. The class will emphasize interactions of the oceans, polar regions, and the atmosphere in regulating climate. Unifying themes include: (1) differentiating between weather and climate, (2) identifying climate drivers and patterns, (3) current patterns in climate data, (4) paleoclimate and how past climate change contributed to the rise (or fall) of human civilizations and cultures, and (5) consequences of current climate change for natural and human systems. Laboratory experience will include research, GIS, field study, and a citizen science research project related to climate data collection. Field trips to local climate research centers will be a required part of the course.

Introduction to Modern and Classical Genetics: (Grades 10, 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites:

1. successful completion of Human Biology or equivalent lab science course

This course introduces students to both the fundamentals of classical genetics as well as issues and techniques of modern genetics and biotechnology. The course is heavily lab oriented, with students learning and applying protocols in DNA extraction, bacterial transformation, gel and polyacrylamide electrophoresis, DNA fingerprinting, protein extraction and purification, and polymerase chain reaction. Lab protocols are developed by the teacher and are also developed independently by the students. Topics explored includes historical aspects of our understanding of genetics, DNA structure, the processes of replication, transcription, and translation, the molecular basis of genetic disease, gene sequencing, synthetic biology, and ethical considerations in modern genetics and biotechnology.

Introduction to Microbiology: (Grades 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. successful completion of Human Biology or equivalent lab science course

This course introduces students to the biology of bacteria, protists and fungi. The course is heavily lab oriented, with students learning and applying protocols in microbiology, including bacterial culturing, biochemical identification, morphologic identification, Gram staining, microscope use, antibiotic resistance and environmental microbiology. Students often learn basic microbiological techniques and then apply those techniques to protocols they develop themselves. Content is focused on information necessary to understand and apply lab protocols.

SOCIAL STUDIES COURSES 2019-2020

Social Studies- Freshman Year: Global Studies

Students are required to take Global Studies during the 9th grade year.

Global Studies: (Grade 9) 2-semester course, 1.0 credit

Prerequisites: None

Global Studies is a foundational, year-long social studies course **required of all Freshmen**. By the end of the course, students will have a firm understanding of several world cultures and be conversant in current world affairs. Using current events as a starting point, we will explore the social and political impact of human geography and the rise of world religions. Students will be exposed to the development of international systems of government and the resulting challenges implicit in globalization. Through an emphasis on primary source analysis and expository writing, students will develop the skills necessary to be successful in upper level humanities courses.

Social Studies- Sophomore Year: World History

*All sophomore students are required to take the one-semester class, **The Modern World:1492-Present**, **and one world history semester course (see below) OR Sophomores who meet the course prerequisites may choose to take the two-semester AP World History class.***

The Modern World: 1492-Present: (Grade 10) 1-semester course, Fall or Spring, 0.5 credit

Prerequisites:

1. Global Studies

This course focuses on the emergence of the modern world, from both a Western and Non-Western perspective. We will begin with the European Age of Exploration and will move through the global

experience of Industrialization, Imperialism, and the World Wars. By the end of the course, students will have broad knowledge of the major world events that caused world civilizations to transition into modernity, and they will have a deeper understanding of what it means to be a global citizen of the modern world.

AP World History: (Grades 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. Minimum average of **88** in previous history course and a high level of interest in the study of history

AND

2. Current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

In AP World History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1200 C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; development and transformation of social structure; and technology and innovation. *Students enrolling in this course are required to take the AP Exam in the spring.*

World History Semester Courses

*All Sophomores taking the semester course **The Modern World: 1492-Present** are also required to enroll in one of the semester courses below. These courses are **available first for sophomores and then for students in grades 11 and 12, space permitting.***

Comparative World Mythology: The Dreams of Humanity: (Grade 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Global Studies

This course is a comparative survey of Global Mythology and Symbolism. Taking an approach guided by the work of Carl Jung and Joseph Campbell, we will examine the mythology and art of numerous world cultures, from small bands of people to large-scale civilizations. Over the course of a semester, students will not only learn to compare and analyze the many ways that humankind has come to express meaning throughout the ages, but they will also explore the collected dreams of humankind to discover the meanings and symbols that personally resonate with them.

East Asia: Continuity and Change: (Grade 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Global Studies

This course is a survey of the history, culture, art, and religion of East Asia, from the ancient origins of China in 5,000 BCE up to 1500 CE. Focusing on China, Japan, Mongolia and Tibet, students will combine anthropological and historical approaches to explore the multifaceted East Asian world. Students will come away with a deeper understanding of East Asian cultures, their roots, and their important roles in the history of the world.

Pre-Colonial African Societies: (Grade 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Global Studies

This course will provide a broad panorama of African societies from ancient times to just prior to the Colonial period. We will examine the art, culture, history and literature of African societies such as Egypt, Axum, Kush, Swahili, Benin, and Zulu. Students in the course will gain an appreciation for the diversity and antiquity of African societies, and also learn to search for interconnections across millennia of traditional African life and thought. This class will focus heavily on interpreting and discussing selections from ancient African literature and art and will require good reading and communication skills

Ancient Greek History: (Grades 10, 11, 12) 1-semester course, TBD, 0.5 credit

Prerequisites:

1. Global Studies

A tiny landmass dominated by warring city-states, the Greeks nevertheless defeated one of the greatest land empires in history, the Achaemenid Empire and culturally influenced the development of both the Roman empire and the subsequent European civilizations. Focusing specifically on the rivalry between Sparta and Athens, the development of the Athenian Empire and the Peloponnesian War, this course will focus on the foundations of Greek civilization from prehistory to the fall of Alexander and the Hellenistic world using the works of Herodotus, Thucydides and Xenophon.

Social Studies- Junior Year: U.S. History

All juniors, and seniors who have not had this course before, take a two-semester course in U.S. History.

U.S. History: (Grade 11, 12) 2-semester course, 1.0 credit

(graduation requirement for all students, unless taking AP U.S. History)

Prerequisites:

1. successful completion of The Modern World/World History elective

OR

2. AP European History

In this year-long course, students will examine the political decisions, social norms, military conflicts, and economic factors that have influenced and formed our nation as it is today. Students will develop analytical skills by examining primary sources and by completing document-based questions. Students will also be encouraged to form balanced opinions of historical events, from the pre-Columbian period to the close of the 20th century, by exploring them from multiple perspectives.

AP U.S. History: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. Minimum average of **88** in previous history course and a high level of interest in the study of history

AND

2. Current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

Advanced Placement US History is a survey course designed to provide students with factual knowledge and the analytical skills necessary to critically examine the history of the United States. The course begins with Pre-Columbian societies and their interactions with European explorers and continues up through the post-Cold War world. Using active learning strategies as well as teacher led discussion, this content-heavy course uses both a traditional text and primary source materials to practice critical reading, writing, and thinking. *Students enrolling in this course are required to take the AP Exam in the spring.*

Social Studies/Social Sciences: Advanced Courses

*Advanced Course Open to 10th Grade - AP US Government and Politics (taken in **addition** to the required 10th grade course/courses - for elective credit.)*

Advanced Courses are open to 11th and 12th grade students for Social Studies and/or elective credit.

AP US Government and Politics: (Grades 10,11,12) 2-semester course, 1.0 credit

Prerequisites:

1. minimum average of **88** in previous history course

OR

2. current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

Students in the Advanced Placement US Government and Politics course examine the foundations, processes, and institutions of our American political system. In the process, they are challenged to improve their analytical abilities and are encouraged to become discriminating consumers of media messages. *Students enrolling in this course are required to take the AP Exam in the spring.*

Honors Microeconomics: (Grades 11, 12) 1-semester course, Fall, 0.5 credit

Prerequisites:

1. completion of IM3 and a strong conceptual understanding of mathematics.

As a discipline, microeconomics is a science of choice, particularly how consumers and producers make choices about what gets produced, how it gets produced, and who gets what is produced, given limited resources. Honors Microeconomics introduces students to the fundamental principles of economics that apply to the functions of individual decision makers within the economy. The course begins with the core economic problems of scarcity, opportunity cost, and trade-offs. We continue with the basic economic concepts of comparative advantage, supply and demand, and the theory of consumer choice. The course places primary emphasis on the nature and function of product markets; the theory of perfect competition and the firm forms the heart of the course. Students will then complicate this analysis with a study of monopolies, oligopolies, and monopolistic competition. Factor markets, particularly for labor, but also for land and capital, are discussed. The course concludes with analysis of market failure, poverty and inequality, and the role of government in promoting greater efficiency and equity in the economy.

Students are encouraged to enroll in both Honors Microeconomics and Honors Macroeconomics to gain a complete introduction to economics. With some additional preparation, students may choose to take the AP Microeconomics exam in May.

Honors Macroeconomics: (Grades 11,12) 1-semester course, Spring, 0.5 credit

Prerequisites:

1. Honors Microeconomics; completion of IM3; and a strong conceptual understanding of mathematics.

Honors Macroeconomics introduces students to the principles of economics that apply to the economy as a whole. The course begins with the key concerns of macroeconomics—national income and output, inflation, and unemployment. The heart of the course analyzes how fiscal and monetary policy are employed to achieve macroeconomic policy goals. Students will first evaluate how governments use tax and spending policy to promote growth, control inflation, and reduce unemployment. We will then study the nature and function of the banking system and how central banks employ monetary policy to stabilize the economy. The course will also investigate economic growth and international economics. In addition to students interested in economics, Honors Macroeconomics will also appeal to students with a passion for politics, international relations, business, and current events.

Students are encouraged to enroll in both Honors Microeconomics and Honors Macroeconomics to gain a complete introduction to economics. With some additional preparation, students may choose to take the AP Macroeconomics exam in May.

AP Art History: (Grades 11, 12) 2-semester course, 1.0 credit in either social studies OR art

Prerequisites:

1. minimum average of **88** in previous history course

OR

2. current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

In this course, students will develop an understanding of major forms of artistic expression from the past and the present, including architecture, sculpture, painting, and other media. They will examine works from both historical and cultural perspectives and acquire the ability to objectively and critically analyze artworks, in order to understand the time and place in which they were created. Through their studies, students will learn to appreciate works of art from other cultures and understand the ways that art history, a discipline emphasizing social context, is a field that makes connections between many other disciplines. *Students enrolled in this course are required to take the AP Exam in the spring.*

AP Psychology: (Grade 12) 2-semester course, 1.0 credit

Prerequisites:

1. minimum average of **88** in previous history course

OR

2. current history teacher's recommendation of a strong commitment to academic work equivalent to a college-level history course that includes extensive reading and writing

In this college-level Introduction to Psychology class, students are introduced to the systematic and scientific study of human behavior and mental processes. They are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields in psychology, while also learning about the ethics and methods psychologists use in their science and practice. Students will develop their critical thinking abilities, oral and written communication skills, and their research methods and critical evaluation skills. *Students enrolled in this course are required to take the AP Exam in the spring.*

Honors Ancient Western Philosophy: (Grades 11, 12) 1-semester course, TBD, 0.5 credit English OR Social Studies

Prerequisites:

1. Rhetoric and Composition 2 and Global Studies

AND

2. recommendation of current social studies teacher

At its heart, the practice of philosophy is deeply concerned with the question of identity and being, either at an individual, collective, or national level. In their pursuit of answers to this question, the Ancient

Greeks created the conceptual underpinnings of not only their own society but also the entire western world. In an effort to understand the relevance of this fact in modern society, this course will explore the major works and history of western philosophy, beginning with the pre-Socratic Greeks and continuing through the fall of the Roman Empire. Students will analyze important primary texts of the Ancient world, considering them in terms of both their own context and in relation to the contemporary world. This class will encourage the development of critical reading and writing skills through the use of class discussions, historical research, and analytical writing.

SPECIAL COURSE OFFERINGS 2019-2020

Yearbook: Publication Design: (Grades 9, 10, 11, 12) 2-semester course, 1.0 credit
Prerequisites: None

Students who enroll in this course will become staff members of *The Silhouette*, Carolina Day's student-led organization dedicated to creating and publishing the annual yearbook. Students will have the opportunity to pursue their individual interests in digital media design, photography, journalism, and advertising. Students will experiment with tools such as the Adobe Creative Suite (Photoshop and InDesign) and DSLR cameras to craft aesthetically pleasing digital creations. Under the mentorship of senior editors and the instructor, students will critically analyze both their own and their peers' work to refine their skills in effective visual and textual communication. *Note: This course may be repeated for credit.

STEM Studio Courses:

Students who love to create, apply their knowledge of science, technology, engineering and math and are passionate about hands-on problem solving have a home in STEM Studio. STEM courses listed below reflect a multi-disciplined, largely self-paced approach to learning. Students will work toward goals of demonstrating proficiency in a baseline skill set for a particular concentration, applying that skillset to complete a specified project, or embarking on independent research and design projects. Students will work independently or in small groups, setting their own expectations and proceeding through checkpoints. Students must be able to work independently, but will have a teacher/coach to monitor, mentor and guide them through their learning process. These courses are designed for beginners, intermediate and advanced students. Those with prior experience and expertise will have the opportunity to collaborate across multiple disciplines when working on projects.

Engineering and Design (Grades 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 Elective Credit

By designing unique solutions to authentic and complex challenges, students will learn the basics of engineering: the research and design cycle, prototyping, optimizing

performance within constraints, documenting and presenting one's process and product, and collaborative problem-solving.

Computer Programming (Grades 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 Elective Credit

Students will learn foundational skills in programming such as i/o basics, syntax, program structure, conditional statements, loops, functions, and classes. Python will be the language of choice, but once students have demonstrated fundamental coding proficiency they can learn additional languages. They will also have the opportunity to work toward advanced topics/projects such as graphics, game design, and web-design.

Robotics (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 Elective Credit

From the basics of sensors and servos to programming microcontrollers, students in this class will learn the principles of robotics by building and testing their own bots and devices. With guidance and support from the teacher, students will work collaboratively to experiment, set achievable goals, and develop functional and original robots.

Advanced Mathematics and Modeling (Grades 11, 12) 1-semester course, Fall and/or Spring, 0.5 Elective Credit

Concepts of multivariate calculus will be studied, including several topics in vector calculus, differential equations, and multivariable differentiation/integration. Students enrolled in this course should be prepared to learn how to program in MATLAB, though no prior programming experience is necessary.

Freshman Seminar: (Grade 9) 2-semester course, once a week, 0.5 credit

Prerequisites: None

Freshman Seminar is a **required course for all 9th graders** to help students successfully transition to the Upper School--new teachers, friends, schedule, and different expectations. This course addresses common concerns specific to 9th grade students, such as time management, study skills, exam preparation, stress management, academic independence, and first steps in the college process. During the second portion of the year, the class will focus on health and wellness. Topics include healthy relationships, sexual health, drugs/alcohol, mental health, gender identity and sexual orientation. Freshman Seminar meets once a week and is graded Pass/Fail.

College Exploration Seminar: (Grade 11) 2-semester course, once a week, no credit

Prerequisites: None

College Exploration Seminar is a **required course for all 11th grade students**. The class steps through the college exploration process and prepares students for the college application process. Topics include creating a standardized test plan, exploring college characteristics, understanding how to create a balanced college list, researching colleges, learning about the college application and essay, exploring careers, and creating a resume.

Speech: (Grades 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites: None

Speaking and critical listening are crucial skills for the 21st century – especially for students living in a democracy. Speaking in front of a group comes naturally to some, but is stressful to others. This project-based class covers a wide variety of speaking challenges. The ultimate aim is to give all students the tools to mitigate stress and communicate effectively. Class goals include identifying personal strengths and weaknesses as an oral communicator, disciplining the voice, learning to listen and analyze, communicating clearly, and organizing thoughts into effective structures. **This course (or Competitive Speech and Debate) is a graduation requirement and is usually taken during sophomore year.**

Competitive Speech and Debate: (Grades 9, 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites:

1. willingness and ability to travel with the Debate Team to two tournaments

Debate class offers an overview of the events offered at National Speech and Debate Association tournaments--particularly Lincoln-Douglas and Public Forum Debate and Extemporaneous Speaking. Participation in this class empowers students to become effective communicators, ethical individuals, critical thinkers, and leaders in a democratic society. Students select events based on individual interests and through collaboration with the teacher; their work culminates in tournament participation. Each student works towards improving communication skills (verbal and nonverbal), self-confidence, self-awareness, analytical skills, creativity, and collaborative skills.

Advanced Competitive Speech and Debate: (Grades 10, 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites:

1. successful completion of Competitive Speech and Debate

AND

2. willingness and ability to travel with the debate team to two tournaments

Advanced Competitive Speech and Debate builds on the concepts taught in the previous course. This course will encourage student leadership on the team, and help students continue to develop organizational and research skills that will benefit them in college and career. *Note: This course may be repeated for elective credit.

Honors Competitive Speech and Debate: (Grades 11, 12) 1-semester course, Fall and/or Spring, 0.5 credit

Prerequisites:

1. successful completion of Advanced Competitive Speech and Debate

AND

2. willingness and ability to travel with the debate team to two tournaments

AND

3. successful completion of a summer debate camp

AND

4. students must have taken or must be co-enrolled in Honors Philosophy (Ancient or Modern) or Honors Economics (Micro or Macro)

Honors Debate builds on skills taught in previous courses and pushes students to higher levels of competition in the speech and debate world. Students will have chosen a debate event on which to focus, most likely Lincoln-Douglas or Public Forum debate, and they should plan to compete at the Varsity level in their chosen event. Students must prepare for Honors Debate by attending a summer debate camp which should be chosen in collaboration with the teacher. Students must also prepare for Honors Debate by having taken or co-enrolling in Honors Philosophy, Ancient or Modern (this is particularly relevant for Lincoln-Douglas debaters), or Honors Economics, Micro or Macro (this is particularly relevant for Public Forum debaters). *Note: This course may be repeated for elective credit.

Independent Student Research Project (ISRP): (Grades 11, 12), 1 or 2-semester course, Fall and/or Spring, 0.5-1.0 credit.

Prerequisites:

1. written proposal and approval by ISRP facilitator

This experiential, educational opportunity is designed to provide students with a platform to develop their intellectual curiosity, as they delve into an exploration, through research, of a topic of their choice. The ISRP may be undertaken during a student's junior or senior year, with the help and guidance of the course instructor and mentorship from a chosen faculty member; it may be done individually or collaboratively with a partner/s. Internships, films/videos, the sciences, social studies, mathematics,

and/or the arts are just a sampling of directions a research project might go. What all projects will have in common is an essential question to guide exploration, a blog to reflect upon ongoing work, a carefully constructed research paper, and a multi-media presentation of choice to the larger community. Our hope is that students will take the opportunity to learn about something they have always wanted to explore--something for which they have a passion or care about deeply or about which they have always wondered.

STUDENT SUPPORT COURSE OFFERINGS 2019-2020

Study Skills: (Grades 9, 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. requires that the student have a documented learning difference that suggests this level of support

AND

2. requires a separate contract with additional fee

AND

3. enrollment is limited to a maximum of 4 students per section

This year-long class provides a structured approach to learning and uses effective strategies for success in the Upper School. At the beginning of each semester, students set short and long-term academic goals. As the semester progresses, the following skills are introduced and reinforced to assist students in reaching their goals: managing time and materials, note-taking, reading comprehension strategies, planning for long-term assignments, test preparation, and self-advocacy. This course is open only to students with a documented learning difference. *Note: This course can be taken each year as warranted, but the student **only receives credit once**. 9th grade students may consider Study Skills as their sixth course in any semester. In subsequent years, Study Skills does not count as the sixth course, except in those situations approved by principal.

Linguistics: (Grade 9) 2-semester course, 1.0 credit

Prerequisites:

1. open only to students with a documented language-based learning difference; the course fulfills one World Language credit for qualifying students.

AND

2. requires a separate contract with an additional fee

This year-long course is designed to extend the Orton-Gillingham study of language at the advanced level, with an emphasis on developing writing skills and learning introductory Spanish. Using the Orton-Gillingham multisensory model, students are also introduced to Spanish in preparation for future study in the language. Students establish a solid foundation for pronunciation and spelling and learn

important grammatical differences between English and Spanish. Linguistics is open only to students with a documented language-based learning difference and fulfills one World Language credit for qualifying students.

WORLD LANGUAGE COURSE OFFERINGS 2019-2020

Linguistics: (Grade 9) 2-semester course, 1.0 credit

Prerequisites:

1. open only to students with a documented language-based learning difference; the course fulfills one World Language credit for qualifying students.

AND

2. requires a separate contract with an additional fee

This year-long course is designed to extend the Orton-Gillingham study of language at the advanced level, with an emphasis on developing writing skills and learning introductory Spanish. Using the Orton-Gillingham multisensory model, students are also introduced to Spanish in preparation for future study in the language. Students establish a solid foundation for pronunciation and spelling and learn important grammatical differences between English and Spanish. Linguistics is open only to students with a documented language-based learning difference and fulfills one World Language credit for qualifying students.

Spanish 1: (Grades 9, 10) 2-semester course, 1.0 credit

Prerequisites: None

Students practice and develop their ability to understand spoken Spanish—to converse, to read, to give oral presentations, and to write. As students at this novice level learn to describe people, families, houses, chores, leisure time, shopping, clothing and food, they also explore relevant cultural practices and perspectives with special emphasis on the cultures of Mexico, Puerto Rico, Guatemala and Peru. This class does not assume any background in Spanish; however, it should be noted that many of the students in Spanish 1 have had some prior exposure to the language.

Spanish 2: (Grades 9, 10, 11) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 1 with approval of CDS Spanish 1 teacher and a satisfactory performance on end-of-course Spanish placement assessment (in CDS 8th grade)

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

In Spanish 2, students further develop their skills through a communicative program that emphasizes the ability to use the language for authentic purposes. The course takes a theme-based approach in which grammatical concepts are naturally integrated with language functions and communicative contexts. As language structures are presented and reviewed, students build skills and improve their level of accuracy. In addition, students deepen their understanding of the Spanish-speaking world through culturally rich, authentic materials. Units include, but are not limited to: school and personal life, house and neighborhood and trips and excursions.

Spanish 3: (Grades 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 2 and approval of CDS Spanish 2 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's Spanish placement assessment

In Spanish 3 students are transitioning to intermediate levels of proficiency. This class affords students a variety of opportunities to be creative with the Spanish language as they develop their interpersonal, presentational and interpretive skills. A thematic framework that allows students to express more complex ideas with greater accuracy, incorporating more advanced language functions, vocabulary and grammar. Sample units include Descriptions of Individuals, Crime, Luck, Relationships, and Decisions. The richness of hispanic cultures is highlighted as students explore some of the cultural products, practices and perspectives of the Spanish speaking communities.

Honors Spanish 4: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 3 and approval of CDS Spanish 3 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

Spanish 4 is an advanced course that aims to develop and improve oral and written communication through the careful study of the language, literature, and cultures of Spain, Latin America, and Hispanic communities in the United States in an immersion setting. The course seeks to foster and deepen an awareness and understanding of the diversity of the Spanish-speaking world. The course is organized by themes based on contemporary social and cultural issues relevant to students' lives. The themes serve as a framework for integrating advanced grammatical structures while continuing to expand vocabulary

knowledge and usage. Instruction utilizes film, songs, short stories, podcasts, newspapers, and excerpts of novels. Daily activities require strong critical thinking skills as students engage in discussion, debate, and literary analysis.

Spanish Culture and Conversation: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Spanish 3 and approval of CDS Spanish 3 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

This is a highly interactive course that emphasizes the development of students' expressive language skills through daily conversations about the rich and varied cultures of the Spanish speaking world in an immersion setting. Students explore various regions of Mexico, Central and South America, and Spain through authentic and relevant material such as podcasts, web-based content, art, popular culture and Spanish language films. Class discussions, themes, and cultural explorations form part of a greater communicative function that allows students to develop their language skills and cultural competence for use in authentic situations. Students are expected to take an active daily role by participating in group work, projects, skits, presentations, discussions, and debates.

AP Spanish Language/Honors Spanish 5: (Grade 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Honors Level 4 and approval of CDS Honors Spanish 4 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

The skills and knowledge acquired in the Spanish 5/AP classroom prepare students for a communicative and culturally competent experience in the outside world. This is the capstone course for Spanish language learners at CDS. Utilizing ACTFL standards, instruction and practices assist students in moving to a pre-advanced level of proficiency in the three skills areas—Interpretive, Interpersonal, and Presentational. There is continued emphasis on listening comprehension, speaking, reading, and writing, integrated with authentic use of the language in both formal and informal settings. While developing their language skills, students explore modern life through a variety of themes affecting both the individual and the greater society: Public and personal identities, global challenges, art and esthetics, science and technology, families and communities, and modern life are some of the major topics of this course, and students develop an awareness of current topics affecting the Spanish-speaking world through the use of authentic resources. Note: Spanish 5 is not offered every year. When offered, it includes study of the same themes as AP Spanish Language, but does not include specific practice for the AP exam. *Students enrolled in AP Spanish are required to take the AP Exam in the spring.*

French 1: (Grades 9, 10) 2-semester course, 1.0 credit

Prerequisites: None

Students practice and develop their ability to understand spoken French—to converse, to read, to give oral presentations, and to write at a novice level. They explore and participate in units of study, which include vocabulary related to individual description, family, school, and sports, and more. These lessons allow students to go beyond the surface of what they hear, read, and see to examine and comprehend French cultural perspectives.

French 2: (Grades 9, 10, 11) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 1 with approval of CDS French 1 teacher and a satisfactory performance on end-of-course French placement assessment (in CDS 8th grade)

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

French 2 students continue strengthening their novice-level skills to a beginning/middle-intermediate level. Communication is the goal, as students listen to French speakers, and read, converse, write, and make presentations in the language. Thematic units of study include, but are not limited to: cuisine, households, and health. Students deepen their understanding of the French-speaking world through culturally rich, authentic materials.

French 3: (Grades 10, 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 2 with approval of CDS French 2 teacher

OR

1. for students new to CDS, a satisfactory performance on the school's placement assessment

In French 3, students typically continue to develop their intermediate language skills within a theme-based approach, while incorporating higher and more complex grammatical structures. Sample units include crime, technology, driving, and places/locations. Francophone culture is highlighted in each theme, as students explore in depth the cultural products, practices, and perspectives of the French speaking world. Students complete their French 3 year reading, discussing, and writing about *Le Petit Prince* by Antoine St-Exupery.

Honors French 4: (Grades 11, 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Level 3 with approval of CDS French 3 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

French 4 is an advanced course that aims to develop and improve oral and written communication through the careful study of the language, literature, and cultures of the Francophone World. The course seeks to foster and deepen an awareness and understanding of the diversity of the French-speaking world. French 4 is organized by themes based on contemporary social and cultural issues relevant to students' lives. The themes serve as a framework by which the class integrates advanced grammar and continues to expand vocabulary knowledge and usage. This class provides a wide variety of samplings of the language that may include films, music, novel excerpts, and short stories. Students participate daily in activities requiring strong critical thinking skills, such as discussion, debate, and literary analysis.

AP French Language/Honors French 5: (Grade 12) 2-semester course, 1.0 credit

Prerequisites:

1. successful completion of Honors Level 4 and approval of CDS Honors French 4 teacher

OR

2. for students new to CDS, a satisfactory performance on the school's placement assessment

AP French language is the capstone course for French language learners at CDS. Utilizing ACTFL standards, instruction and practices assist students in moving to a pre-advanced level of proficiency in the three skills areas—Interpretive, Interpersonal, and Presentational. There is continued emphasis on listening comprehension, speaking, reading, and writing, integrated with authentic use of the language in both formal and informal settings. This course also explores modern Francophone life through a variety of themes including: identity, immigration, education, and Francophone heritage and current events, which affect both the individual and the greater society. With this in mind, students will be able to turn the skills and knowledge acquired in the classroom into a communicative and culturally competent experience in the outside world. Note: French 5 is not offered every year. When offered, it includes study of the same themes as AP French Language, but does not include specific practice for the AP exam. *Students enrolled in AP French are required to take the AP Exam in the spring.*