## Classical Cottage Consortium, Inc. 2023-2024 UPPER SCHOOL COURSE DESCRIPTIONS

Unless otherwise noted, all classes are offered for one hour, one day a week for $\mathbf{3 2}$ weeks. Tuition is based on a minimum of 10 students and may be adjusted for lower enrollment. These courses are intended for mature middle school or high school students and are organized below according to subject area.

SPECIAL NOTE for any courses designed to help students prepare for AP exams: We are fortunate to have these designated courses taught by teachers who are both well-qualified and experienced in teaching within their fields of study. Often the course syllabi are in sync with College Board curricular parameters, and many of our students have been highly successful on the Advanced Placement (AP) listed for these courses. However, in order to support students in preparation for these exams, parents will need to 1) be responsible for early fall exam registration at their respective local high school or for researching to find another high school that is administering the desired test, 2) purchase test-specific study materials, and 3) structure regular independent study for review purposes. A meeting to give parents a more detailed orientation to AP exams will be offered during the school year.

## CLASSICAL CORE COURSE STRANDS:

The Classical Cottage Consortium Upper School curriculum has three core course strands that offer our students a robust classical education, both in content and methodology. Each strand comprises five or six years of concurrent study and the courses within each strand are offered in cycles. Please see the page titled "Overview of Upper School Core Strands" in this Registration Packet for more information.

NOTE ABOUT OUR LATIN CLASSES: If you intend to enter the C3 Latin program mid-series (with enrollment in a class other than a beginning, entry-level class), you will need to contact the Registrar to request an exception from the Board before registering.

## Latin 1/2

Jennifer Hoffman
Prerequisites: strong reading and writing skills
Ages: 11 \& up
Tuition: \$260
Materials Fee: \$25 (additional purchase of textbook and workbook required)
Estimated Homework Time: 1 hour per day (4 hours per week)

This beginning Latin course is the first half of high school Latin I. Chapters 1-12 of Lingua Latina will be covered in this class, which equals $1 / 2$ high school credit. A parent is required to attend class with the student so that proper assistance can be given at home. We recommend this level for students in grades 6 and up who are strong readers and are ready to develop serious study skills. Homework will require one hour of focused Latin study every day, and students will likely need a great deal of assistance at home.

Prerequisites: C3 Latin $1 / 3$ (if student has not taken C3 Latin $1 / 3$, special permission is required to enroll in this class)
Tuition: \$260
Materials Fee: $\$ 25$ (additional purchase of textbook and workbook required)
Estimated Homework Time: 1 hour per day (4 hours per week)

This is the second of a three-year sequence of Latin I for younger students who are tackling Lingua Latina at a slower pace than the Latin $1 / 2$ track. This year students will work through chapters 9-16 of the text. Students must have completed Latin $1 / 3$ (through chapter 8) successfully in order to continue. A parent is required to attend class with the student so that proper assistance can be given at home. Homework will require 45 -minutes to 1 hour of focused Latin study every day, and students will need parental support at home.

## Latin II

Nancy Juday
Prerequisites: C3 Latin $3 / 3$ or $2 / 2$, or equivalent (if student has not previously taken Latin at C3, special permission is required to enroll in this class)
Tuition: \$300
Materials Fee: $\$ 25$ (additional purchase of textbook and workbook required)
Estimated Homework Time: 1 hour per day (4 hours per week)

This course finishes the majority of the study of Latin grammar and serves to complete two years of a foreign language at the high school level. A parent is required to attend class with the student so that proper assistance can be given at home. Homework will require one hour of focused Latin study every day, and students will need parental support at home.

## Latin IV

Molaika Beer

## Prerequisites: C3 Latin III

Tuition: \$400
Materials Fee: $\$ 30$ (additional purchase of textbook and workbooks required)
Estimated Homework Time: 4-5 hours per week

In this course students will further build on the foundation laid in previous levels of Latin by reading selections of poetry from the works of Catullus, Horace, and Ovid, as well as Books I and II of Vergil's Aeneid. In addition to reviewing vocabulary and advanced grammar concepts, students will learn how the Latin poets used rhetorical devices and meter. The class will trace poetic themes such as tradition and innovation, the nature and purpose of poetry, the existence of Rome and the effects of its contact with other cultures, and mankind's relationship with the divine, one another, and the world around us. Students will also read prose passages from Cicero and early Christian Latin and complete a few short composition assignments. The content of Latin IV represents both a continuation of the historical study done in Latin III and a new exploration of Latin literature and the cultures which produced and preserved it. Latin IV is designed to encourage independent study and reduced parent involvement, but parents are always welcome to attend class if they wish to continue participating. This course requires at least one hour of focused Latin study every day. Students who have met with success in Latin III will be well-prepared for Latin IV.

## Prerequisites: Progymnasmata I

Tuition: \$400
Materials Fee: $\$ 60$
Estimated Homework Time: 2-3 hours per week

Part two of a two-year course, this class is based on D'Angelo's college level text, Composition in the Classical Tradition, which is a modern adaptation of the 4 th century B.C. rhetoric text by Apthonius. Progymnasmata (which means preliminary exercises) is the ancient art and science of teaching the skills of writing. Similar to The Institute for Excellence in Writing program, this curriculum is more comprehensive in scope and also includes introductory study of literary and rhetorical devices. Over the two-year course, students are led step by step through eleven increasingly challenging genres of writing that steadily build their writing proficiencies. The culminating skill is the crafting of carefully structured persuasive essays. This second year uses all the skills of year one and examines the generation and arrangement of ideas in persuasive essays. Students will learn to use ancient tools to analyze exemplary writings from all periods and then to write their own persuasive essays and speeches.

## Logic II: Aristotelian Formal Logic

Josh Hummer
Prerequisite: C3 Logic I, or the equivalent
Tuition: \$260
Materials Fee: $\$ 15$ (additional purchase of books required)
Estimated Homework Time: 3 hours per week

Aristotelian Logic is an in-depth study of the classical syllogism. The second year of Logic builds on the careful foundation laid in Logic I. This study included Material Logic, which is concerned with "what" things are and the question of "truth". It also focused on the beginnings of Formal Logic, which is concerned with the structure of the argument, and the study of various fallacies, or invalid arguments. Formal Logic considers the three acts of the mind: simple apprehension, judgment, and deductive inference. In Logic I, the emphasis was on the first two acts of the mind. In Logic II, the emphasis is on the third act of the mind: deductive inference. The focus is on the syllogism, on how to construct syllogisms and test syllogisms for validity. The basic syllogism is studied as well as more difficult types including: enthymemes, sorites, epicheireme; hypothetical, disjunctive, and conjunctive syllogisms, and dilemmas. Class format will be in-class lecture, group discussion and activities, and written exercises to do at home during the week.

## Rhetoric

Kelly Cabana
Prerequisites: minimum of C3 Logic I, or the equivalent
Ages: 15 \& up
Tuition: \$300
Materials Fee: $\$ 5$ (book purchases required - see Booklist)
Estimated Homework Time: 2-3 hours per week

Rhetoric is considered the capstone of a classical education, which brings the other parts of a student's academic experience into a harmonious whole. In the "grammar stage" a student acquires the building blocks of knowledge. In the "logic stage," one practices with the pre-rhetoric genres of Progymnasmata and then learns the rules of abstract thought in Logic and begins applying them in each academic area. In the "rhetoric stage" students learn to write and speak with force and originality. The student of rhetoric applies the rules of logic to the foundational information gained in the early grades, builds on the skills and attention to language developed in Progymnasmata, and learns to express his or her conclusions in clear, elegant, compelling language. More than a broad stage within the classical model applicable to all subject areas, the specific and carefully designed Rhetoric course offers students the opportunity to study "the greatest book on communication ever written", Aristotle's Rhetoric and

Poetics, and apply the principles therein to analyze dozens of seminal speeches from Montefiore's Speeches That Changed the World. They will also learn by doing - writing and presenting regular, peer-evaluated essays and speeches. In particular, students study the modes of persuasion (pathos, logos, ethos); figures of speech; speech analysis and delivery; complex structures, stasis, schemes and tropes; heads of purpose; and branches of rhetoric (political, forensic, ceremonial). The goal is to work towards a mastery of rhetoric (the art of persuasion) thereby equipping young scholars to go forth as persuasive, effective leaders in the home and church, the community and commerce, the nation and the world.

## Omnibus II: Medieval and Renaissance

## Cindy Leahy / Kelly Cabana

Prerequisites: none
Ages: $11 \&$ up
Tuition: $\$ 400$ (this class meets $3-4$ times a month, for $11 / 2$ hours each session)
Materials Fee: $\$ 145$ (includes all books for the class and handouts)
Estimated Homework Time: 6 hours per week

This is the second of a six-year series addressing the literature, history, and culture of major Western civilizations in chronological order. (We study ancients to medieval/renaissance to modern and then repeat the cycle with different literature.) Please note that students may join the Omnibus cycle at any time during the first three years. The optimal level to begin is middle school/early high school; there is no prerequisite, though the Progymnasmata course is a good preparation. The course format will be a Paideia discussion (used in the Great Books program), which is based on close reading of literature and historical accounts. The goals of the Paideia approach are to build skills of inductive and deductive thinking through careful analysis of the text. Readings will be whole texts or excerpts chosen from key writings of the medieval/renaissance period. Students will read and discuss The Song of Roland; Beowulf; Dante's Divine Comedy; the Arthurian legend; Shakespeare's Romeo and Juliet; and excerpts from The Canterbury Tales. The readings will be analyzed for themes, structure, and style; the interrelation between history, literature, and culture will also be emphasized. The four major writing assignments for this class will include two essays (a commonplace and a thesis) and two expressive writings, which will be speech-in-character papers. While the writing component may seem intimidating for younger students, all writings are genres of Progymnasmata, so students taking that course will be familiar with their composition. Additionally, while everyone will be able to do the speech-in-character assignments, those younger students who are not yet ready for the full essays will be encouraged to at least do the preparation for the essays and will receive class instruction for that purpose. Each full year of Omnibus is equal to one (1) high school English credit.

## Omnibus V: Medieval and Renaissance

Cindy Leahy
Prerequisites: none
Ages: 13 \& up
Tuition: $\$ 400$ (this class meets $3-4$ times a month, for $11 / 2$ hours each session)
Materials Fee: $\$ 175$ (includes all books for the class and handouts)
Estimated Homework Time: 6 hours per week

This is the fifth of a six-year series addressing the literature, history, and culture of major Western civilizations in chronological order. (We study ancients to medieval/renaissance to modern and then repeat the cycle with different literature.) Please note that students may join the Omnibus cycle at any year in the series, pending instructor approval. The optimal level for Omnibus V is high school. The course format will be a Paideia discussion (used in the Great Books program), which is based on close reading of literature and historical accounts. The goals of the Paideia approach are to build skills of inductive and deductive thinking through careful analysis of the text. Readings will be whole texts and excerpts chosen from key writings of the medieval and renaissance periods with poetry, the development of English literature, English drama, tales of chivalry, and medieval political philosophy
being the focus. In particular, we will read and discuss sonnets: Sir Gawain and the Green Knight; Morte D'Arthur; excerpts from The Fairie Queene; Medieval political philosophy; Utopia; The Prince; Doctor Faustus; Merchant of Venice; Richard III; and Macbeth. Readings will be analyzed for themes, structure and style; the interrelation between history, literature, and culture will also be emphasized. The four major writing assignments will include two major essays (two theses) and two expressive writings (a sonnet and an imitation of style). In order to more fully develop student writing skills, there will be class instruction and feedback via drafts for each writing assignment. Each full year of Omnibus is equal to one (1) high school English credit. Parents of students intending to take the Advanced Placement English exams should be sure to register for the AP preparation seminar offered second semester.

AP English Exam Preparatory Seminar (late January - early April)
Cindy Leahy
Prerequisites: a background in Progymnasmata and Omnibus, or by teacher permission
Ages: 16 \& up
Tuition: $\$ 200$ for 6 three-hour sessions, meeting once a week (please reserve Monday afternoons)
Materials Fee: $\$ 40$
Estimated Homework Time: 4 hours per week for the six weeks of class
An intense preparatory class for students intending to take the Advanced Placement English Language \& Composition and/or the English Literature exams. These exams are an excellent way for students who have had several years of Progymnasmata and Omnibus to validate their transcripts for colleges and to possibly earn 3-6 college credits and avoid having to take freshman English. Coursework will include: a thorough overview to exams and test-taking strategies; review of rhetorical terminology; introduction to (and group analysis of) the seven types of questions; and essay-writing practice in a timed and formal setting.

## ADDITIONAL LANGUAGES:

In addition to Latin, this year we offer American Sign Language, Spanish, and Greek. These classes offer further opportunities for our students and can serve to fulfill foreign language requirements on a high school transcript.

## American Sign Language I

## Becky Marks

Prerequisites: none
Ages: 12 \& up
Tuition: \$260
Materials Fee: $\$ 95$ (includes $\$ 75$ for the textbook, which the teacher will purchase, and $\$ 20$ for materials)
Estimated Homework Time: 1-2 hours per week

This course focuses on everyday communication as the centerpiece of every lesson. The classes are conducted in American Sign Language (ASL) from the very first day; students should come to each class prepared to sign with the teacher and other classmates. The teacher will use gestures, signs, and drawings, and will act out situations to get the point across, and the student's job is to keep trying! The focus on immersion learning may sound daunting at first, but this approach parallels what we know about language development and successful second-language learning. Grammar is introduced in context, with an emphasis on developing question and answering skills. Students will learn strategies to help them engage in conversation, and various interactive activities will allow them to rehearse what they have learned. This course satisfies one (1) high school foreign language credit.

Prerequisites: completion of Greek $1 / 3$, or equivalent as determined by the teacher
Tuition: $\$ 280$
Materials Fee: \$20
Estimated Homework Time: 4-5 hours per week
This course builds on the foundation laid in Greek $1 / 3$. Students will continue to accumulate vocabulary and an understanding of increasingly sophisticated grammar. In addition to the stories from the textbook, students will read longer excerpts from Classical Greek poets, tragedians, and historians, as well as from the Gospel of Luke. Daily review of vocabulary, charts, and grammar is essential to the attainment of reading fluency. Parents are always welcome, but not obligated, to attend the class.

## Greek III

Molaika Beer
Prerequisites: completion of Greek II, or equivalent as determined by the teacher
Tuition: \$280
Materials Fee: \$20
Estimated Homework Time: 4-5 hours per week
Greek III is a course dedicated entirely to reading selections from two of mankind's oldest literary creations: The Iliad and The Odyssey. Students will acquire much new vocabulary and become acquainted with Homer's dialect. In order to experience the music of the poems, students will learn to scan and recite dactylic hexameter, as well as memorize a 10 - or 15 -line passage of their choosing.

## Spanish I

Charles Presberg
Prerequisites: none
Ages: 12 \& up
Tuition: \$260
Materials Fee: \$20
Estimated Homework Time: 2-3 hours per week

Through a variety of both oral and written exercises, students develop all four language skills in the target language: speaking, writing, as well as spoken and written comprehension. These exercises - all high-energy include reading aloud selected passages, written and spoken translation from both English to Spanish and Spanish to English, performing spoken dialogues, and practice in both reading and writing. By the end of their first year, students will master the Spanish system of phonetics and phonology, learn the entire grammar system, and acquire a vocabulary service list of approximately 620 words.

## HISTORY / SOCIAL SCIENCES:

For high school students, we have a two-year History of Western Civilization course series and a two-year American History series, to be taken in any order. MS History is for middle school students. Also offered this year are three additional classes in the broader social sciences: Cultural Geography, AP Government \& Politics, Economics \& Personal Finance, and the American Stories enrichment class.

## Prerequisites: none

Ages: 11-13
Tuition: \$260
Materials Fee: $\$ 40$
Estimated Homework Time: one hour per week

This class will begin with the Fall of Rome and the Early Church and move through the Medieval Era up to the Fall of Constantinople. Each week we will take a close, interactive look at various topics including the Crusades; medieval literature; kings \& queens; architecture; daily life in the middle ages; wars \& battles; saints, religious and other important key figures; and more. We will make an interactive composition notebook that will include notes, foldables, maps, and more, similar to lapbook style. Students will be expected to write notes from the board during class and follow directions on making the interactive notebook. Homework will involve finishing any work leftover from class or completing any special unit projects. There is no required text; the Materials Fee covers the cost of photocopying, paper, and copying licenses.

History of Western Civilization I: Ancients
Daniel LaPré
Prerequisites: none
Ages: 14 \& up
Tuition: $\$ 260$
Materials Fee: $\$ 45$ (additional purchase of textbook required)
Estimated Homework Time: 2 hours per week

This history course will delve into the civilizations of Ancient Greece, Ancient Rome, and Late Antiquity Rome (which includes New Testament Christianity). From the remarkable ideas of the ancient Greeks to the Roman civilization that inspired America's Founding Fathers, students will discover just how much these cultures have influenced later European history and the West.

Advanced Topics in American History II:
Patrick McCarthy
Prerequisites: a basic foundation in U.S. history (it is not required that a student take Advanced Topics in American History I prior to this class)
Ages: 15 \& up
Tuition: $\$ 400$
Materials Fee: $\$ 50$ (due to the unavailability of certain texts, the materials fee covers the necessary photocopies for this class; additional purchase of books also required - see Booklist)
Estimated Homework Time: 3-4 hours per week

This class begins with the conclusion of the Civil War and continues through the presidency of George W. Bush (2001-2008). Key topics to be analyzed include: the industrialization and suburbanization of America (starting with Rockefeller and Carnegie); the beginning and spread of an American global presence (examples, World I and II); and the origins and expansion of the national welfare-state (the New Deal of 1933 and onward). Secondary texts to be studied include the clashing liberal and conservative views found in Howard Zinn's People's History and Dr. Thomas Woods' Politically Incorrect Guide, respectively. Alexis de Tocqueville's Democracy in America will be consulted for its insights into the tensions between America's conflicting commitments to liberty and equality. The course will conclude with readings in Whittaker Chambers' Witness, an exposition of the nation's continuing spiritual and moral crisis.

Prerequisites: Civics highly recommended but not required
Ages: 15 \& up
Tuition: $\$ 400$ (this AP level class meets for $1 \frac{1}{2}$ hours each week)
Materials Fee: $\$ 40$ (additional purchase of texts required)
Estimated Homework Time: 5-6 hours per week

This course will examine and analyze the establishment of our Constitution stressing federalism, separation of branches, and individualism and liberties, including civil rights. Students will study the organization and powers of the political institutions in the United States with an emphasis on policy-making and public policy. They will learn the importance of political parties, elections, campaigns, interest groups, and mass media. This course will prepare students for the AP U.S. Government \& Politics exam.

The curriculum of this course is in sync with the College Board syllabus for the Advanced Placement U.S. Government and Politics exam. Parents are responsible for early fall exam registration at their respective local high schools and should structure regular, weekly independent study for review purposes.

## Cultural Geography: North and South America

Janette Cascio
Prerequisites: knowledge of country locations and major physical features of the Americas
Ages: 12 \& up
Tuition: \$260
Materials Fee: $\$ 30$ (additional purchase of textbook required)
Estimated Homework Time: 1-2 hours per week

Cultural geography is the study of the relationships between humans and their natural environment. This course will study the complex physical and human factors that have shaped the different regions of the Americas. Students will explore the process, patterns, and functions of human settlement as well as how cooperation and conflict influence these settlements. We will also study how human actions modify the physical environment and how physical systems affect human systems. We will talk about current events in this region but will not talk about the politics connected to those events. It will be assumed that students know the locations of all of the countries and major physical features of the Americas. This high school geography course can satisfy one of the four credits of history/social sciences required for the Virginia Advanced Studies Diploma.

## Economics \& Personal Finance

Nancy Juday
Prerequisites: none
Ages: 14 \& up
Tuition: \$280 (this class meets 3-4 times a month, for $1 \frac{1}{2}$ hours each session)
Materials Fee: $\$ 40$ (includes cost of textbook and materials for the class)
Estimated Homework Time: 3 hours per week

This course will cover the basic concepts and theories of the American economic system: supply and demand, business and labor, government and banking, economic global developments, and personal finance. The students will complete projects including comparison shopping, a resume, a job interview, a stock-exchange assignment, a simple tax return, and a monthly household budget. Various essays on relevant topics will be assigned. This high school level class tracks the course requirements for the Virginia Advanced Studies Diploma.

## Prerequisites: none

Ages: $12 \&$ up (younger children aged 10 or 11 may take the class, at the discretion of the parents)
Tuition: \$260
Materials Fee: \$20
Estimated Homework Time: No homework is required for this class.

With lots of enthusiasm and fascinating detail, Rev. Beall shares hundreds of stories that emphasize America's unique Christian heritage, doing so in the classroom as if we are actually "on site with spiritual insight!" This class offers virtual visits (an in-person classroom experience with an engaging "tour guide") to major historical sites in the greater Washington, DC area to learn the stories and first-hand accounts of our national heritage. Using powerpoints, flags, gospel fliers, large photo cards, and dozens of handouts with scores of Bible verses, we plan to 'visit' the following locations: DC monuments, Smithsonian museums, U.S. Capitol, Museum of the Bible, Arlington National Cemetery, National Archives, National Cathedral, National Basilica of the Immaculate Conception, U.S. Supreme Court, Library of Congress, White House, Jefferson's Monticello, Harpers Ferry, C\&O Canal, Manassas Battlefield, Antietam Battlefield, Gettysburg Battlefield, and more. Parents are encouraged to attend. Come enjoy and engage with the American Christian heritage that surrounds us!

## MATHEMATICS:

Math classes offered this year are Pre-Algebra, Algebra I, Geometry, and Precalculus. Due to the nature of the subject matter, math classes are held twice a week - on Tuesdays (live-stream class online, times may vary) and on Fridays (in person at C3).

## Pre-Algebra

## Bob Carhart

Prerequisites: completion of Math 7
Ages: 12 \& up
Tuition: \$500*
Materials Fee : \$40 (additional purchase of textbook required)
Estimated Homework Time: 3-4 hours per week
N.B.: A successful student entering Pre-Algebra will be familiar with multiplication facts 1-12. Students must be cognitively ready to leave the elementary school mindset and start embracing symbols and structure as a natural growth step towards high school mathematics. If unsure of your student's readiness, contact the teacher for an evaluation.

This rigorous, hands-on, intensive mathematics course begins the transition from rote arithmetic to higher level mathematics in preparation for the formal study of Algebra I. Students will be introduced to the concept of definition in mathematics, sets and set operations, operations on real numbers and their properties (including integers and integer operations), variables and equation solving, place value and alternate number bases (we cover alternate bases to remove the student from their familiar Base 10 and truly understand the concept of place value), basic inequalities, number line models for various topics, prime and composite numbers, factoring and simplification, the Fundamental Theorem of Arithmetic, rational numbers and fractions, ratio, proportion, percentage, distance and absolute value, the concept of average, introduction to mathematical modeling, understanding and solving word problems, probability and elementary statistical analysis, measurement and precision, and geometry and graphing/display techniques. This is a first course in beginning to think of mathematics structurally and not just in terms of specific numeric computations. (Although there is a significant amount of computation involved in the class.) Homework packets are assigned after each class. Unit tests are given (often with a take-home portion and an in-class portion) for each of the units. For parents desiring a grade for their student in the class, these tests will provide the basis for determining a grade; quizzes are also given to gauge
progress. Students are actively engaged during in-class lectures through board work, group work, seated work, and lecture.
*This class meets twice per week. Classes will be held on Tuesdays (online via Zoom) and Fridays (in person) at C3. Each class will be $1 \frac{1}{2}$ hours for a total of 3 hours instruction time per week. Additional tutoring provided as needed for an additional hourly charge.

## Algebra I

Jen Wright
Prerequisites: Pre-Algebra or Math 8
Ages: 13 \& up
Tuition: \$500*
Materials Fee: $\$ 25$ (additional purchase of textbook required)
Estimated Homework Time: 3-4 hours per week
N.B.: Students not currently enrolled in the C3 Pre-Algebra class may be required to take an entrance exam to verify readiness for the course.

The following topics will be covered in this course: order of operations, real numbers and their operations, distributive property, solving linear equations, functions, ratios, graphing lines, direct variation, solving and graphing inequalities, linear systems, exponents and operations, radical expressions, quadratics, polynomials and factoring, and the Pythagorean theorem.
*This class meets twice per week. Classes will be held on Tuesdays (online via Zoom) and Fridays (in person) at C3. Each class will be $1 \frac{1 / 2}{}$ hours for a total of 3 hours instruction time per week. Additional tutoring provided as needed for an additional hourly charge.

Geometry
Bob Andreoli
Prerequisites: Algebra I
Ages: 12\& up
Tuition: \$500*
Materials Fee: $\$ 10$ (additional purchase of textbook required)
Estimated Homework Time: 4-6 hours per week

This course emphasizes deductive Euclidean geometry in two and three dimensions. Course topics will include: logical systems; the nature of formal proof; distance and betweenness; lines and planes; angles and triangles; congruence; parallelism and perpendicularity; geometric inequalities; similarity; area; circles and spheres; coordinates; and solids and volumes.
*This class meets twice per week. Classes will be held on Tuesdays (online via Zoom) and Fridays (in person) at C3. Each class will be $1 \frac{1}{2}$ hours for a total of 3 hours instruction time per week.

## Precalculus

Jen Wright
Prerequisites: Algebra II and Geometry
Tuition: \$500*
Materials Fee: $\$ 15$ (additional purchase of textbook and graphing calculator [TI-84 or better] required)
Estimated Homework Time: 4-6 hours per week
N.B.: Students not currently enrolled in Mrs. Wright's Algebra II class will be required to take a readiness test this summer to determine proficiency in Algebra II and Geometry; date will be determined by the teacher.

This is a preparatory course for college calculus as well as a culmination course in mathematical problem solving. Topics will include but not be limited to: linear, quadratic and general polynomial behavior; rational, exponential and logarithmic functions; composite and compound functions; circles, ellipses and hyperbolas; functional and relational transformations; domain, range and invertibility; concept of the unit circle; trigonometric ratios, identities and functions; limits and continuity; complex numbers; and graphing techniques. General tutoring will be available as needed or recommended for this course; additional charges may apply.
*This class meets twice per week. Classes will be held on Tuesdays (online via Zoom) and Fridays (in person) at C3. Each class will be $1 \frac{1}{2}$ hours for a total of 3 hours instruction time per week.

## SCIENCE AND OTHER STEM CLASSES:

We offer one middle school science class this year: Earth Science. At the high school level, Health \& Nutrition, Biology, and Physics are offered. In addition, there are two levels of Computer Science, which students may begin in late middle school; these classes may fulfill a math, science, or fine arts/career credit on a high school transcript, per the Advanced Studies Diploma Course Requirements as determined by the Virginia Department of Education.

## Health \& Nutrition

## Kacky Kasinski

Prerequisites: none
Ages: 14 \& up
Tuition: \$260
Materials Fee: $\$ 50$ (includes student workbook)
Estimated Homework Time: 1 hour per week

This class will use Apologia's Exploring Creation with Health \& Nutrition 2nd Edition student notebook and textbook. Students will not need their own textbook as they will take notes during class from the board on the lecture given from the text. The course covers the systems of the human body, senses, genetics, temperaments, and the physical influence on thoughts and feelings. The course respectfully covers mental illness and emotional stability, as well as the value of human beings, our culture, our families, socialization, communication skills, and conflict resolution skills. Students will gain an in-depth knowledge of both macronutrients and micronutrients, including the importance of exercise and proper diet. The Omnivore's Dilemma will be read during a unit on food science. The course will include at home projects such as meal tracking, exercise, etc.
N.B.: The last chapter of the text deals with mature concepts of marriage and sexual reproduction. This chapter will be removed from the student notebook before the first day of class and will be put into a sealed envelope in each student's family folder so parents may determine how to handle the material at home, if they wish to do so.

Earth Science

Ages: 12-14
Tuition: $\$ 375$ (this class meets for $11 / 2$ hours on Fridays)
Materials Fee: $\$ 40$ (additional purchase of textbook required)
Estimated Homework Time: 3-4 hours per week

This general science course will cover primarily earth science topics and will also include the development of science skills such as the process of scientific inquiry, performing labs, and interpreting data. Topics will include geology, land formations, weather, fresh water, the atmosphere, and the solar system, as well topics in environmental and life science. Students will be required to do weekly reading and other assignments; regular quizzes will be administered.

Computer Science I
Bob Carhart
Prerequisites: completion of Pre-Algebra
Ages: 13 \& up
Tuition: \$260
Materials Fee: $\$ 35$ (additional purchase of textbook required and students will need a laptop computer)
Estimated Homework Time: 2-4 hours per week (less at the start of the year, more at the end)
A standard, rigorous introduction to computer science, this course focuses on how computers are used in business, government, and society to solve challenging problems and provide useful applications. From the first class meeting, the course has a programming focus with Python as the language of instruction. Progressively through the year, students broaden and deepen their knowledge of fundamental programming concepts, including flow of control, loop and decision structures, variables, data types, operations, functions (sub-programs), input-output, plus the concepts of data abstraction and object-oriented programming. In the second half of the year, students are briefly introduced to the C programming language in order to draw contrast between syntax, semantics, and the richness, size, and utility of a programming language. At a high level, we study the language spoken by computers, including binary numbers, expression of character data, and hexadecimal expression of sequences of bits. Students emerge with a solid basic understanding of the Python language and will write several small programs each week outside of class. There is one larger project towards the end of the year. A laptop is required for both in-class use and for the assignments done at home. Students work on laptops every class for nearly the entire class. An internet connection is required, as we use the cloud programming environment for Python called 'repl.it.' Students who succeed in the course generally have a solid interest in programming and a sincere interest in learning true computer science. A computer science course, while certainly building a practical skill set for today's world, can also serve to fulfill a number of requirements for the Virginia Advanced Studies Diploma. Computer Science can provide required course credit in mathematics, the sciences, or fine arts/career and technical subject areas.

## Computer Science II (AP)

Bob Carhart
Prerequisites: successful completion of Computer Science I or permission from the teacher prior to registration
Ages: $14 \&$ up
Tuition: $\$ 400$ (this class meets for $11 / 2$ hours on Fridays)
Materials Fee: $\$ 35$ (students will need a laptop computer)
Estimated Homework Time: 4-5 hours per week

Building on the foundation of Computer Science I, in this course students transition to the Java programming language and follow the AP Computer Science A curriculum. Topics include: compiling a program, primitive types, classes and objects, booleans (with relational and logical operators), two-way and multi-way decisions, iteration and looping, recursion, inheritance, polymorphism, and dynamic binding. The central concept of encapsulation is taught alongside the concept of Java interfaces. The AP Java subset is given particular attention, and a focused review of these topics is conducted methodically through the spring months using Barron's AP preparatory book (in addition to our standard class text). The course also introduces basic data structures including arrays, linked lists, stacks, queues, trees and graphs, including a very light introduction to algorithm analysis as data structures are introduced and programmed, with a focus on structure, insertion, searching, sorting, and data structure specific operations, as appropriate. This is a rigorous and programming-intensive course in Computer Science and is intended to give the student preparation for the AP Computer Science A exam.
N.B.: The curriculum for this course is in sync with the College Board syllabus for the AP Computer Science A exam. Parents are responsible for early fall exam registration at their respective local high school and should structure regular, weekly independent study for exam preparation.

## Biology with Lab

Prerequisites: none
Ages: 14 \& up
Tuition: $\$ 450$ (this class meets for 2 hours on Fridays)
Materials Fee: $\$ 40$ (additional purchase of textbook required)
Estimated Homework Time: 3-4 hours per week

This high school biology course explores the fundamental characteristics of living matter, ranging from a molecular perspective to the structural, functional, and behavioral diversity of living organisms. Labs will support the lectures and offer hands-on opportunities for discovery. Students will be expected to come to class having read the textbook selection and generated questions to ask during the lectures. Practice exercises will reinforce the content knowledge while enrichment assignments will promote critical thinking to solve problems and interpret diagrams and graphs. Emphasis will be placed on scientific literacy, and tests will be given regularly to demonstrate mastery.

## Physics with Lab

Jen Wright
Prerequisites: Algebra II and basic Trigonometry
Ages: 15 \& up
Tuition: $\$ 450$ (this class meets for 2 hours on Fridays)
Materials Fee: \$50
Estimates Homework Time: 4-5 hours per week

This is a high school level, college preparatory course in general physics. Topics covered include Newton's laws, momentum, energy, rotational motion, gravity, projectiles, electricity and magnetism, waves and optics, and heat and thermodynamics. Atomic and nuclear physics, sound vibrations, and relativity will be treated more briefly. Though most topics will be approached conceptually, the class will focus strongly on mathematics to prepare students for college level sciences. In order to determine if your student has the skills to be successful in physics, please contact the teacher who can provide a detailed description of the math skills required. In addition to weekly class, the teacher will be available via online video conference once per week for students who occasionally need questions answered, clarification of difficult concepts, and help with homework. Students will need to sign up in advance each week for this additional help.

## ARTS \& COMMUNICATIONS:

The following courses offer students valuable learning opportunities to enrich or support a classical education. This year they include Art History, Chorale Singing, Practical Arts, and Shakespearean Drama.

## Art History

Anna Hatke
Prerequisites: none
Ages: 14 \& up
Tuition: \$280 (this class meets 3-4 times a month for $11 / 2$ hours each session)
Materials Fee: $\$ 85$ (covers art prints, photocopies, and some art supplies; additional book purchases required)
Estimated Homework Time: 2 hours per week

This course will explore the art and architecture of peoples from the Paleolithic through the Ancient World, Middle Ages, Renaissance, as well as the Baroque, Neoclassical, Romantic, Impressionist, and Modern Periods. Attention will also be given to philosophy of art and discussion. Quizzes will be given for each time period covered (about every 4-6 weeks). Students will conduct one small art project to accompany the study of each historical period. While the focus will largely be on the art of the west, students will receive a foundational framework from which to appreciate non-western art as well.

## Chorale: Fundamentals of Choral Singing

## Sofia Cuddeback

## Prerequisites: none

Ages: $12 \&$ up (11-year-olds may take the class if they took Sing for Joy last year)
Tuition: \$260
Materials Fee: $\$ 30$
Estimated Homework Time: 2-3 hours per week

The purpose of this course is to give its participants the joyful experience of group singing in unison and in parts. This course will develop ear training through aural memorization and repetition in class, and the Ward method will be used to teach solfege as a transition to rudimentary sight singing. The course will use English and American folk music, rounds, Negro spirituals, Latin chant and polyphony, and will particularly focus on Christmas carols in the first semester. Homework will consist in completing weekly written assignments, vocal exercises, and memorization of lyrics and musical parts (recordings of parts will be provided for this via email attachments as well as printed sheet music when applicable). Homework requirement is $30-45$ minutes daily. No previous singing or choral experience needed - only a good attitude! This course utilizes different songs and pieces each year and, as such, is appropriate for repeat enrollment.

## Practical Arts

Erin Edwards
Prerequisites: none
Ages: 13 \& up
Tuition: $\$ 280$ (this class meets 3-4 times a month, for $11 / 2$ hours per session)
Materials Fee: $\$ 65$ (this will cover the cost of various materials for projects within each unit)
Estimated Homework Time: minimal

The goal of this class is exposure to, and instruction in, practical life skills. The inspiration for the curriculum comes from the educational philosophy of Charlotte Mason, and it is also an effort to give our students the opportunity to study (albeit for a brief period) under local tradesmen, homemakers, and other skilled individuals. The lead teacher will present a number of different topics, but will also arrange for guest instructors. Possible unit themes may be: beekeeping, gardening, farming, chicken brooding, cooking, household management and maintenance skills, clothing care and repair, woodworking, traditional food preservation, wellness modalities, home remedies, CPR \& First Aid, small business ideas, and car maintenance and repair. (These are subject to change based on instructor availability and logistics.) Homework will involve occasional weekly readings ( $15-20$ minutes in length) related to the topics covered and possible completion of - or preparation for - class projects. Periodic field trips to nearby locations will be worked into the schedule during class times (e.g. visiting a local restaurant, orchard, or rescue squad, etc.). These projects and outings may require a small commitment of assistance and/or driving to and from the alternative location by the responsible parent/guardian.

## Prerequisites: none

Ages: 12 \& up
Tuition: $\$ 300$
Materials Fee: $\$ 50$
Estimated Homework Time: 2-3 hours per week (primarily line and blocking memorization)

This immersive, performance-based course exposes students to the genius of Shakespeare, affording them an opportunity to feast on his work by enacting it with their classmates. Participants can expect to learn by memorizing, internalizing, and delivering Shakespearean dialogues and monologues in the context of one classically staged production per year. The 2024 C3 production will be Shakespeare's Twelfth Night. Course aims include instilling a robust appreciation for the theatrical and literary richness of Shakespeare's plays, increasing textual/linguistic and elocutionary competency and confidence, and gaining a foundational understanding of stage-acting.

OTHER ELECTIVES:

## Introduction to Philosophy

## Charles Presberg

Prerequisites: Logic is the perfect precursor to Philosophy, but is not required.
Ages: mature 15-year-olds \& up
Tuition: \$375
Materials Fee: \$20
Estimated Homework Time: 3 hours per week

Students enroll in this course to join a family that Peter Kreeft calls "Socrates's children." They will learn what thinkers from Socrates to the present have expressed about philosophy's great questions-truths about God, man, and the world. To do so, they will pursue philosophy less as a subject than as an art, a lifelong quest for truth. They will study authors who practice philosophy in a Socratic spirit of humility and dialogue. Through these authors outstanding examples of Socrates's children - students learn to think with a sense of awe about the harmonious truths of reason, revelation, and the arts. Students will read, discuss, and write short essays about the assigned texts. Each semester, they also complete one research paper of eight pages (MLA format) on a topic approved by the instructor. Over the summer, students should read all three volumes of J.R.R. Tolkien's Lord of the Rings.

## Yearbook

Leila Robertson
Prerequisites: only a desire to work on the C 3 yearbook
Ages: 14 \& up
Tuition: \$260
Materials Fee: \$20
Estimated Homework Time: 1 hour per week
Creating the C3 Yearbook will be a team effort giving each student an opportunity to work on a year-long project while collaborating with fellow classmates. The students will learn how to set and meet long-term deadlines while managing the different aspects of a larger project. They will practice communication skills, solve problems, and grow in leadership. Students will learn about photography, take pictures, edit pictures, design pages, create layouts, journal about events, and edit the final product. Budgeting, advertising, and marketing (in relation to the yearbook) will also be covered as part of the larger project. Most of the yearbook will be created during class time, however,
from time to time, students will be involved in taking photos during the day at C3 and during C3 activities. Students will require a laptop computer and access to the internet (wifi) during class and at home. They will be working on the yearbook site Entourage while creating their portion of the yearbook. Each participating student will receive a free copy of the yearbook at the completion of the project. Most importantly, the students will work together to create a final product which will capture the year and be enjoyed by many others for years to come.

## Study Hall

Fee: $\$ 20.00$ (one-time fee, for the year)
Study Hall is intended for students who are mature enough to sit and work independently for an entire hour. They must bring enough work to occupy their time and understand that Study Hall is not a social hour. Our Study Hall monitors do not assist with schoolwork. Study Hall is offered throughout the day as long as classrooms are available. While on campus, Upper School students must either be in class, in Study Hall, or with a parent. Students are required to register for Study Hall as with all other classes, and students are limited to no more than one study hall per Thursday and/or Friday class day. If an additional Study Hall is desired, parents will need to seek an exception from the Board prior to registering.

