



**2023 – 2024**

**CATS ACADEMY BOSTON**

**PROGRAM OF STUDIES**



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## Our Mission Statement

CATS Academy Boston offers an American co-educational college preparatory boarding and day program (grades 8 – Postgraduate) for domestic and international students who are linguistically, culturally, and academically diverse.

Focusing on the needs of everyone, the Academy helps students realize their full potential and attain admission to the college choice that is right for them. CATS Academy provides a supportive learning community where all students receive the necessary guidance to achieve their goals, aided by a personalized learning plan.

CATS Academy also helps students to develop by nurturing strong English language skills along with creative and critical thinking skills. The school's strong academic, social development, and extracurricular programs –delivered by highly talented and committed staff – provide for the needs of the whole student body.

This holistic approach enables the international student body not only to gain entry to, but also to succeed in, American colleges and universities and to become well-informed, ethical global citizens and leaders.

## GRADUATION REQUIREMENTS

CATS Academy's academic program is arranged around required core courses and a range of electives. In order to graduate, students will be expected to have completed the following at minimum:

- English Literature- 4 years
- ESL (English as a Second Language)- up to 4 years
- Arts - 1 year
- World Languages - 3 years for all native English speakers
- Mathematics – (4 years of Math required including Algebra 2)
- Science - 3 years (including 2 years of a lab science)
- Social Sciences/History - 3 years (including one year of US History)

### Honors and Advanced Placement (AP) Courses

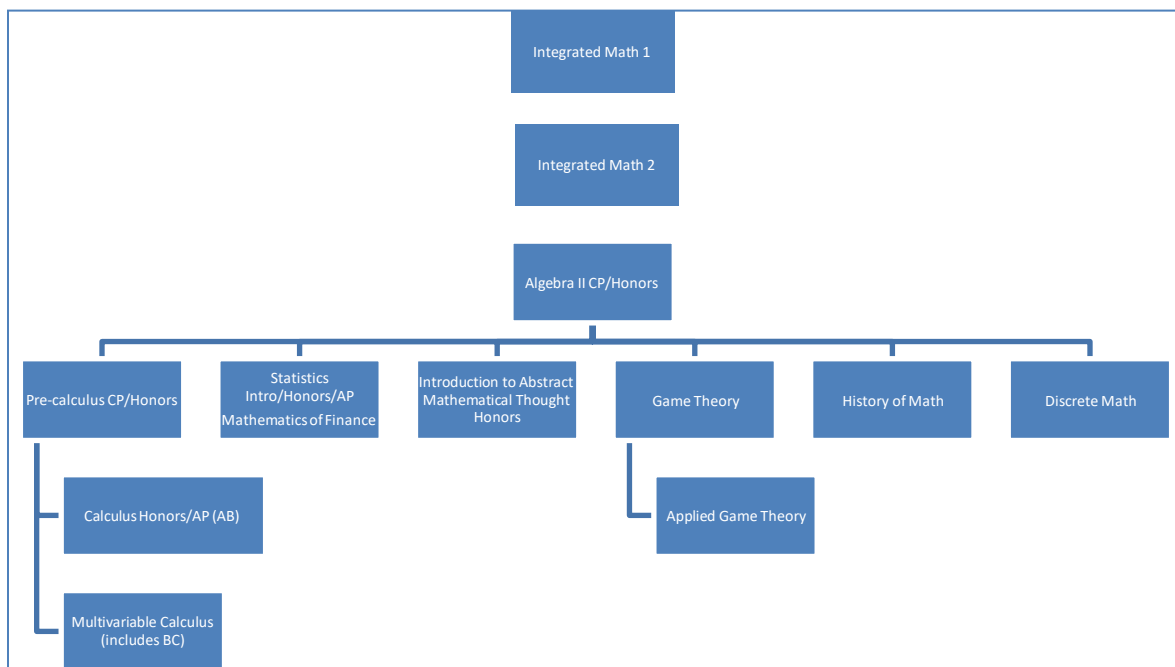
- Honors courses offer highly motivated students an opportunity to study a specific course in greater depth and at a faster pace. Students in Honors courses are expected to produce more work and to develop higher level critical thinking skills.

Advanced Placement courses are college level courses that prepare students to take College Board exams in May to establish advanced placement in college courses or credit toward a college degree. Department approval is required for enrollment in Advanced Placement courses. Most American universities take AP results into consideration in the admissions process. Course offerings are subject to change.

CATS Academy offers the following Advanced Placement courses:

- AP English Language and Composition
- AP English Literature and Composition
- AP Biology
- AP Chemistry
- AP Physics C: Mechanics
- AP Calculus AB
- AP Statistics
- AP Computer Science A
- AP United States History
- AP Human Geography
- AP World History
- AP Macroeconomics
- AP Microeconomics
- AP European History
- AP French
- AP Spanish

## Progression Chart



### Notes:

- All students must take four years of mathematics.
- Students must complete Algebra II as a graduation requirement.
- Once they have completed Algebra II, they can choose from the six elective strands, in any order or simultaneously.

## Academic Course Selection & Scheduling Process

### February/March

- Department Chairs and teachers discuss placement, for returning students, in core courses: English, Social Science, Science, Mathematics, ESL/World Language

### April

- Students review core academic placement with Advisors
- Students choose electives for the upcoming fall/spring semester with Advisors

### May

- Requirement review of core courses completed by Academic Office

### June

- Master Schedule designed by Academic Office

### July/August

- New students interview with Faculty/Department Chairs regarding course placement & electives (electives are based on seniority & schedule availability)
- All student schedules created

### September

- Class schedules finalized by beginning of school year

## **ARTS**

### **Performing Arts**

#### **Drama**

##### **Acting for Film (semester course Fall & Spring)**

**BN/ART/AF – No pre-requisite**

This course introduces students to the basics of acting for film. Students will develop an understanding of the art of acting for the camera through acting exercises, group discussion, watching of films, scene work with acting partners and monologue performance. Participation is mandatory.

##### **Dance (semester Fall/Spring or both)**

**BN/ART/DANCE – No pre-requisite**

Students focus on dance styles that characterize our dance world in the new millennium as well as draws on all traditions that have developed through the centuries. The diversity of the class will include intermingled repertory within single choreographic works. Student projects will include dance critiques, performances, and choreographed pieces (teacher approvals), and participation in a musical production. Participation is mandatory.

##### **Musical Theater (semester course Fall & Spring)**

**BN/ART/MT – No pre-requisite**

Musical Theatre explores every aspect of performance training by unifying elements of acting, singing, and dancing. Students participate in an audition workshop to prepare them for rehearsing scenes and musical numbers from famous Broadway shows. The following techniques will be taught over the semester course: basic ballet and jazz dance forms, classical and contemporary vocal styles, and Western presentational acting. This is an active, fast-paced class designed for students who are interested in performing live in public. The final project will be a live revue performance at CATS.

##### **Theatre Acting (semester Fall/Spring or both)**

**BN/ART/ACT – No pre-requisite**

Transform into new characters in this wild and whimsical class. Acting exercises and games are played to introduce theatre vocabulary, etiquette, stage presence, line delivery, observation, and characterization of body and voice. Techniques practiced stem from methods by Konstantin Stanislavski and Uta Hagen. Each student will actively participate in analyzing, rehearsing, and performing an assortment of scenes, monologues, and/or one short play. All experience levels welcome.

## **Music**

### **Music Theory and Composition (Yearlong)**

**BN/ART/MTC – Pre-requisite:** Permission of instructor  
*CSVPA BOSTON music major requirement\**

Students will learn the fundamentals of how music works, and they will gain the ability to create their own music. This class will explore scales, harmony, melody, and instrumentation. Music analysis will be a focal point of the course as the class explores music from different eras. Music students will use these tools and skills to create their own compositions throughout the year and finish the course with the ability to compose music in many different genres.

### **Piano 1 (Semester Course Fall & Spring)**

**BN/ARAT/PIA1 - No pre-requisite**

Students learn the basics of playing piano and develop their musicianship. Reading music notation, ear training, music theory, piano exercises, and sight reading at an introductory level are all important elements of the Piano 1 course. Students play from repertoire of varying styles and eras. Class sizes are small to maximize individual instruction, and students play in both an individual and group setting. Performance is optional but encouraged for Piano 1 students.

### **Piano 2 (Semester Course Spring)**

**BN/ART/PIA2 – Pre-requisite:** Piano 1 or Audition with the Instructor

Students build on their pre-existing piano skills and continue to develop their musicianship. Reading music notation, ear training, music theory, piano exercises, and sight reading at an intermediate level are all important elements of the Piano 2 course. Repertoire for this course is partially based on student interest, including pieces from varying styles and eras. Class sizes are small to maximize individual instruction, and students play in both an individual and group setting. Performance is optional, but encouraged, for Piano 2 students.

**Advanced Piano Semester Course Fall & Spring)****BN/ART/APIA - Prerequisite:** Piano 2 or Audition with the Instructor

Students work towards an advanced level of proficiency on piano and become well-rounded musicians. Students play advanced repertoire of their choosing and begin composing their own music, building on previous theory knowledge. Students will sight read and play keyboard exercises proficiently. This course is designed around the interests of each student and includes a high level of one-to-one instruction. Performance is required for Advanced Piano students.

**Guitar (Semester Course Fall & Spring)****BN/ART/GUI - No pre-requisite**

Guitar is a course designed to teach students how to use the guitar to study and learn music through learning guitar-specific techniques, notation, and common practices. In doing so, students will tap into and strengthen their inherent musicality via a deeply visual instrument that is heavily utilized in popular music currently and historically. The course will use Nancy Lee Marsters' *Hands-On Training: First Year Guitar* as the textbook. It includes fundamental topics of guitar notation and execution alongside the textbook, the class together world study and engage with practical skills that guitarists need to perform popular styles, and the students would be responsible for having 3 songs performable as a personal repertoire list by the end of the semester.

**Music Technology and Production (Fall and Spring)****BN/ART/MTP – Pre-requisites:** ESL Level 3 or higher

Students learn to compose and produce music using the same programs that are used in the music industry. From EDM, to jazz, to rock and roll, we pick apart many different genres and learn how to recreate some of the greatest hits of all time. The class also teaches composition skills. Previous piano experience is a plus, as much of this class is based around the keyboard.

**Instrumental Ensemble (Fall and Spring)****BN/ART/IE – Pre-requisites:** Instrumental Audition and Instructor approval

Student instrumentalists play in groups to study some of the greatest composers in history and enhance their musicality. This course explores the music spanning the past 300 years, covering music icons from Bach, to Mozart, to Gershwin, and more. There are multiple opportunities for the students to share their work to the school with performances throughout the year.



## **Song Writing (Yearlong)**

**BN/ART/SW – Pre-requisite: Prefer comfort with piano or guitar**

In Songwriting, students will learn to write their own contemporary songs through an exploration of the elements of melody, harmony, rhythm, and lyrics. Students will listen to and analyze songs from songwriters across all decades and genres to build their songwriting skill sets. Students will work independently and collaboratively with other students in the class. The final product for each student will be a recording or performance of their songs. This course is designed for students who have both comfort playing piano or guitar and a willingness to sing.

## **Visual Arts**

### **CSVPA: 2-D Art and Design, And 3-D Art and Design (Yearlong)**

**BN/ART/2DDES – Pre-requisite: Approval of instructor**

**BN/ART/3DDES Pre-requisite: Approval of instructor**

Through studio practice, application of design concepts, and informed decision-making, students assemble a body of artwork that demonstrates a high level of quality and growth of content, technique, and process. Students develop mastery in concept, composition, and execution. All students enrolled in these art courses are required to submit their portfolio.

### **Illustration (Semester Course offered Fall & Spring)**

**BN/ART/ILL – Pre-requisite: Basic drawing and painting skills are encouraged**

An illustrator's job is to provide visual imagery and to convey the meaning or emotion of a text or concept. Some examples of illustration include children's books, advertisements, and video game concepts. In this course you will learn how to effectively tell a story in a single image. Through strong design, the use of color, and captivating compositions, you will create art that demands attention.

### **Creating Comics - (Semester Course offered Fall & Spring)**

**BN/ART/COM – No pre-requisite**

This course is an introduction to creating comics. Students learn effective visual storytelling techniques, how to compose a comic page, and how to create a visually entertaining story. Traditional materials such as pencil and ink are used to develop comic illustrations. Students work from assigned scripts as well as write and draw their own five-page comic. Creative writing, composition, anatomy, and fine art drawing skills are developed as students explore the art of creating comics.

### **Graphic Design – (semester course offered Fall & Spring)**

**BN/ART/GD – No pre-requisite**

The purpose of this course is to introduce students to elements of graphic design. Students utilize computer programs from the Adobe Creative Cloud such as Photoshop and Illustrator. Class projects include poster design, photo manipulation, logo design, and creating a business identity. Students learn valuable skills in color, composition, and typography and the importance these have on creating eye-catching design.

### **Introduction to Drawing (Semester Course offered Fall & Spring)**

**BN/ART/DRA - No pre-requisite**

Introduction to Drawing is a studio course that introduces students to the comprehensive visual language of drawing. Various projects and presentations expose students to numerous drawing approaches, including ways of structuring the picture plane, creating believable space with linear perspective, and modelling form with shading. Students apply these skills to idea generation, form development, experimental variations on a design, investigative studies of creative problem-solving, and expressions of movement and spatial illusion. Using a variety of media, students draw from observation and are introduced to the processes involved in planning, researching, and actualizing a major drawing project. Critiques and lectures help students develop an understanding of the critical issues of drawing and of its context within the history of art. PowerPoint and video presentations support student learning. Each student submits a final portfolio of work developed throughout the semester to fulfill the course requirements. Suggested readings include *The Language of Drawing* by Edward Hill, *Drawing on the Right Side of the Brain* and *Color* by Betty Edwards, *The Natural Way to Draw* by Kimon Nicolaides, and *The Art of Drawing* by Bernard Chaet.

### **Introduction to Painting (Semester Course offered Fall & Spring)**

**BN/ART/PAI No pre-requisite**

The purpose of the course is for students to explore, experiment, and become familiar with the medium of paint; to build skills of observation; and to learn to create form and materiality of simple and complex objects through paint. Students build an understanding of the properties of color, composition, and perspective and develop an understanding of basic design terminology used to express visual ideas and concepts. Students are introduced to examples of historic and contemporary painting through PowerPoint, reproductions in books, and the Internet. Midterm and final portfolios of work produced throughout the semester are required of all students to successfully fulfill course requirements. The portfolio is evaluated on the effort and the quality of the work completed. Suggested readings include *The Language of Drawing* by Edward Hill, *Drawing on the Right Side of the Brain* and *Color* by Betty Edwards, *The Natural Way to Draw* by Kimon Nicolaides, and *The Art of Drawing* by Bernard Chaet.

### **Video Production and Editing (Semester Course offered Fall & Spring)**

**BN/ART/VP - No pre-requisite**

Students will engage in the Pre-production, production, and post-production process of video making. Students will learn how to develop a storyline, record an event, or promote an idea using the media of film. Skills in editing are learned in Adobe Premiere. In addition, students learn about the history of film. Student produced films are presented at the end of the semester.

**Printmaking (Semester Course offered Fall & Spring)****BN/ART/PM – No pre-requisite**

In printmaking techniques, students learn a variety of print methods, including monotype, collagraph, relief, screen-printing, and photoetching. From painterly prints to linocuts to original designs on tee shirts, students gain a well-rounded understanding of some of the most popular methods of making prints. Through these studio processes, they learn how to combine techniques, use studio equipment, and develop new, original creative content. Independent final projects demonstrate these skills, with which students will create a suite of prints suitable for inclusion in college application portfolios.

**Introduction to Sculpture (Semester Course offered Fall & Spring)****BN/ART/SCU – No pre-requisite**

Sculpture is a studio course that introduces students to the comprehensive visual language of the sculptural form. Various projects and presentations expose students to numerous sculptural approaches, including ways of structuring space, choosing, and working with a variety of materials, and handling tools. Students apply these skills to idea generation, form development, experimental variations on a design, investigative studies of creative problem-solving, and expressions of movement and spatial relationships.

**Digital Photography (Semester Course offered in Fall & Spring)****BN/ART/DP – No pre-requisite**

Digital Photography is a course that allows students to learn about photographic composition, light manipulation, elements of visual design, and storytelling. They develop skills in digital imaging using the Adobe Suite and digital cameras and smart phones. Through the process of making, students will learn how to make, and not just take, a photograph.

## **Fashion**

### **Introduction to Fashion (Semester Course offered Fall, Spring or both)**

**BN/ART/FAS - No pre-requisite**

This one semester course introduces students to the basic techniques of fashion. Students will learn the process of design and sewing from concept, sketching, textile development all culminating in the construction of one of their original designs. Themes of sociological and ecological sustainability will be woven into the course content.

### **Advanced Fashion (Semester Course offered Spring)**

**BN/ART/ADFSH – Intro to Fashion**

How do clothing companies design and market their products successfully? Can we create clothing that satisfies the needs of our own community? In order to address these two questions, you will learn how to use fashion design software, identify market needs, and develop and advertise your products to the school community. Products include a CATS Academy jacket, 3-D printed jewelry, and wearable electronics. The course includes a trip to the MIT Media Lab to see cutting-edge uses for technology in the sartorial world. Prerequisites: Previous fashion class or instructor approval. This is a one-semester course.

### **Digital Photography (semester course offered fall and spring)**

**BN/ART/DP - No pre-requisite**

Students will learn about photographic composition, light manipulation, elements of visual design, and storytelling. They develop skills in digital imaging using the *Adobe Suite, and digital cameras*. Through the process of making students will learn how to make and not just take a photograph.

### **Advanced Digital Photography (semester course offered in spring)**

**BN/ART/ADP – Pre-requisite: Instructor approved**

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Students will build upon about photographic composition, light manipulation, elements of visual design, and storytelling. They develop skills in digital imaging using the *Adobe Suite, and digital cameras*. Through the process of making students will learn how to make and not just take a photograph.

### **CSVPA: Fashion Portfolio (Yearlong)**

*CSVPA BOSTON requirement for fashion majors\**

**BN/ART/FP – Pre-requisite: CSVPA Boston Student**

Fashion Portfolio is for the student who is strongly considering fashion design as their major in college. This class is an immersive experience in the process of fashion design from sketchbook development to garment construction, to collection editing and presentation. Underclassmen will focus on the process of fashion design, while all senior students will utilize the skills they've learned to build a portfolio worthy of application to any top fashion school. CSVPA Boston students will have the option of taking this class their junior *and* senior year.

### **Textile Design (semester course offered fall and spring)**

**BN/ART/TD – No Pre-requisite**

Students learn various textile development and modification techniques, as well as textile properties. Textile development includes knitting, dyeing, and printing as well as various fabric modifications. Students utilize their skills to create an end of the term garment.

## **BUSINESS**

### **Accounting (one semester course offered Spring)**

**BN/BUS/ACCT Pre-requisite:** ESL 3 or higher

This course is designed to provide an introduction to the principles and practices of accounting, including the preparation and interpretation of financial statements, budgeting, and cost analysis. Students will develop skills in financial analysis and problem solving, as well as an understanding of how accounting principles are used in business decision making.

Throughout the course, students will develop an understanding of how accounting principles are used in budgeting, cost analysis, and managerial decision making. They will also learn about the use of accounting software and tools and gain hands-on experience using spreadsheets and other financial applications.

### **International Business (one semester course offered Spring)**

**BN/BUS/INTLBUS Pre-requisite:** ESL 3 or higher, Introduction to Business

This course provides insight to the global business environment, including the challenges and opportunities of conducting business across borders. Students will develop an understanding of the cultural, economic, and political factors that shape international business operations, and gain skills in global market analysis, cross-cultural communication, and negotiation.

The course will begin with an overview of the global business landscape, including the international trade and investment flows. Students will then explore the cultural and institutional differences that affect international business practices, such as language, religion, and legal systems.

Throughout the course, students will learn about the various strategies and tactics used by businesses to enter and compete in global markets, including exporting, licensing, joint ventures, and foreign direct investment. They will also develop skills in global market analysis, risk assessment, and cross-cultural negotiation.

### **Introduction to Business (one semester course offered Fall and Spring)**

**BN/BUS/BUS: Pre-requisite:** ESL 3 or higher

This course is designed to provide an overview of the world of business, covering topics ranging from entrepreneurship to marketing, finance, management, and more. Students will explore the fundamental concepts, principles, and practices that are essential for success in the business world and gain a deeper understanding of how businesses operate and compete in a dynamic marketplace.

Throughout the course, students will learn about various business models, structures, and functions, and develop skills in critical thinking and problem solving. They will also learn about the role of technology in modern business. By the end of the course, students will have gained a solid foundation in business principles and practices and be better prepared to pursue further studies in business, economics, or related fields.

### **Marketing (one semester course offered Fall and Spring)**

**BN/BUS/MRKT Pre-requisite:** ESL 3 or higher

This course is designed to introduce the world of marketing, including its principles, strategies, and tactics. Through hands-on activities, real-world case studies, and interactive discussions, students will learn about the various elements of marketing and how they are used to promote and sell products and services in today's competitive marketplace.

The course will begin with an overview of marketing concepts and terminology, including market segmentation, target audience, and brand identity. Students will then explore the different marketing channels and mediums, such

as advertising, public relations, digital marketing, and social media, and learn how to create effective marketing messages and campaigns.

**Professional Communications (one semester course offered Fall and Spring)**

**BN/BUS/PC – Pre-requisite:** ESL Level 3 or higher.

This course helps students develop confidence, poise, and presentation skills. Students learn strategies and techniques for making successful presentations and have opportunities to practice role playing and presenting to peers and to school audiences of all sizes. Students learn how to analyze reports and other sources of information to select the most salient points, and they learn ways to present the information, both visually and verbally, for the most effective impact. Students learn how to connect with the audience, even if they need to use notes, and how to engage the audience with their work or topic. The course focuses on helping students find their own style of communication for presentations. In addition, the course teaches cross-cultural communication techniques so that students can effectively communicate with peers from multiple countries while bridging any communication gaps across cultures. A goal of the course is for students to have fun while building up these critical skills that will serve them beyond their time at CATS, in college, and as members of the global community and workplace.

## ENGLISH LITERATURE

### English Skills (Yearlong)

**BN/ENG/ES - No pre-requisite**

The English Skills course introduces students to literary terms and practices, enabling them to succeed in their future study of English Literature. The class builds a foundation for approaching academic writing and the close reading of texts. Texts may include *brown girl dreaming* and *Cyrano de Bergerac*, as well as fables, folktales, various short stories, and poetry from authors such as Neil Gaiman, Richard Connell, Annie Proulx, Ethel Rohan, Raymond Carver, and Shel Silverstein.

*Society and the Individual, Journeys, Independence, and Critical Lenses are offered at both the College Prep and Honors levels. Honors sections assume more background knowledge, move at a quicker pace, cover additional material, and expect students to work at a higher level relative to College Prep sections.*

### Literature 1: Society and the Individual (Yearlong)

**BN/ENG/LIT1 BN/ENG/LIT1/H**

The course provides freshmen students with a comprehensive introduction to academic writing and literary analysis, beginning with a full review of syntax and grammar rules. The literary component of the class examines texts and identifies themes, which address the role of individual responsibility, and teaches students how to use literature as a lens through which they may better understand society and their roles within the global community. Possible texts may include *The Curious Incident of the Dog in the Nighttime*, *Lord of the Flies*, *The House on Mango Street*, and *A Streetcar Named Desire*.

### Literature 2: Journeys (Yearlong)

**BN/ENG/LIT2 BN/ENG/LIT2/H-**

This course examines characters' physical, emotional, and spiritual journeys in literature. The course begins with essential vocabulary and a review of grammatical rules, then progresses to comprehension and textual analysis. Public speaking assignments give students the opportunity to practice their English-speaking skills and develop confidence in their ability to engage a crowd of peers. Texts for this course include the *Odyssey*, *Chronicle of a Death Foretold*, *Persepolis*, and various short stories and poems.

### Literature 3: Independence (Yearlong)

**BN/ENG/LIT3 BN/ENG/LIT3/H – Pre-requisite:**

This course examines the theme of independence by looking at universal ideas which incited The American Revolution or inspired Transcendentalism. Students work to create their own independence in writing projects, while developing critical thinking and analytical skills. Texts studied in this course may include *The Narrative of the Life of Frederick Douglass*, *The Great Gatsby*, *The Crucible*, and a variety of shorter works by authors such as Dickinson, Thoreau, Emerson, and Poe.



#### **Literature 4: Critical Lenses (Yearlong)**

**BN/ENG/LIT4 BN/ENG/LIT4/H - Pre-requisite:**

This course focuses on analyzing literature through the critical lenses of feminism, Marxism, and psychoanalysis. Students work on identifying and analyzing the reasons for an author's choices and the effectiveness of various means of persuasion and on understanding how critical lenses are employed to interpret texts. Students work towards mastering the critical reading and writing skills necessary for university. Texts studied in this course may include *Macbeth*, *Frankenstein*, and *Cat's Cradle* and shorter works by authors such as Keats, Shelley, Blake, and Orwell.

#### **AP Language and Composition (Yearlong)**

**BN/ENG/LCO/AP – Pre-requisites:** Returning students: A- or higher in Literature 3: Independence Honors; a sample of analytical writing submitted to the English Department Chair; completion of significant summer assignment; approval of the previous instructor. New students: approval of English Department Chair based upon placement test scores and previous English grades.

The Advanced Placement (AP) course in English Language and Composition teaches students to become skilled readers of prose and skilled writers, who compose literature for a variety of purposes. They develop an awareness of a writer's purpose, audience expectations, and genre conventions.

#### **AP Literature and Composition (Yearlong)**

**BN/ENG/LCU/AP – Pre-requisites:** Returning students: A- or higher in Literature 3: Independence Honors; a sample of analytical writing submitted to the English Department Chair; completion of significant summer assignment; approval of the previous instructor. New students: approval of English Department Chair based upon placement test scores and previous English grades.

The AP English Literature and Composition course teaches students how to read, analyze and write about fiction. Students engage with novels, plays, and poetry to determine the author's purpose through the work's structure, style, and themes, while also analyzing figurative language, imagery, and symbolism.

### **Creative Writing (semester course offered fall and spring or both)**

**BN/ENG/CW – Pre-requisites:** Grade 10 or above; ESL Level 4 or higher

We read poems and stories to find something in them that startles us, makes us more aware of the world we live in, makes us more aware of who we are, makes us more alive. In Creative Writing, we read notable poems and stories from the 20th and 21st Centuries so we can learn from great writers' examples and so we can enter this conversation with the world around us that has been going on for hundreds, even thousands of years. We learn how to craft deeper poems than we have been able to write before by learning elements of form, image, voice, line, music, and mystery. By learning such elements of fiction as character development, plot arc, conflict, and symbolism, we will shape stories that move us, surprise us, and transform us into different people than we were before we read them. By the end of the course, students will have built a good-sized portfolio of works that shows their progress as writers, thinkers, and creators—works they're proud of—so they can see where they're going as artists and where they've been. We will write poems and stories that shape the way we and others see the world.

### **Social Justice in Literature – (Yearlong)**

**BN/ENG/SJL – Pre-requisite:** ESL 4

Literature has long been used as a way of exploring and discussing issues of injustice and inequality. From the classic *Of Mice and Men* to the more modern *The Hate U Give*, literature gives voice to the voiceless and forces the reader to confront challenging issues of racism, sexism, classism, and how the issues that divide us are, all too frequently, the issues that matter most. Students explore specific issues of social justice and diversity linked to Young Adult Novels that *explore* those topics in a meaningful way. Texts may include *The Hate U Give*, *Turtles All the Way Down*, and *All-American Boys*. This course should leave students with the language to discuss these issues and the tools to question and confront their own preconceived notions and prejudices.

### **ENGLISH AS A SECOND LANGUAGE (ESL)**

#### **English Conversation (Yearlong)**

**BN/ESL/EC - Prerequisites:** Test results for ESL Level 2 using a secure placement test administered by CATS Academy Boston.

The English as a Second Language (ESL) Level 2 course is specifically designed for international students who are at a *HIGH BEGINNING* comprehension level of the English Language and who plan to continue with their education in a US/UK university/college, where English is the medium of instruction. Using the latest technology, the students focus on learning English for communication purposes including vocabulary, grammar, pronunciation, reading, and listening comprehension, writing, and speaking. Students use an on-line application, Membean, to address individual learning needs in mastering vocabulary. They practice new vocabulary while interacting in class or working on individual or group research projects. The course uses the textbook "Q: Skills for Success 2" (*Listening and Speaking and Reading and Writing*) with the on-line component by Oxford University Press. It is supplemented by original streaming news, authentic audio and video resources, and publications that relate to topics covered in the textbook and reflect everyday life and cultural events in the US and worldwide. There is required reading, listening, and writing homework, including work on-line, and there are tests and quizzes in class to work on test-taking strategies.

### **English Grammar (Yearlong)**

**BN/ESL/EG – Pre-requisites:** Test results for ESL Level 3 using a secure placement test administered by CATS Academy Boston (new students only) or successful completion of the ESL Level 2 course at CATS.

The English as a Second Language (ESL) Level 3 course is specifically designed for international students who are at an *INTERMEDIATE* comprehension level of the English Language and who plan to continue with their education in a US/UK university/college where English is the medium of instruction. It focuses on improving and further developing students' ability in English for Academic Purposes (EAP), with the emphasis on grammar, reading, writing, speaking, listening comprehension skills, academic English vocabulary, researching, and applying those skills to students' own subjects. Students work on understanding spoken and written English and on developing the ability to speak and write clearly and effectively. Students learn vocabulary and presentation skills, increase writing and thinking skills developed in English, and apply critical thinking and writing skills to a variety of academic assignments, including analyzing texts. They work on grammar and academic vocabulary development. In addition, the course includes extended work on academic English, pronunciation skills, conversational English, and the use of idiomatic expressions. There is required reading and writing homework, including work on-line, and there are tests and quizzes in class to work on test-taking strategies. The course is built on the *Focus on Grammar* (FOG) Level 3 Student Book textbook (Pearson) and an on-line application, Membean, to address students' individual learning needs in expanding their vocabulary. It prepares students for future TOEFL examination and is based on using the latest technology. It may include various individual and group activities, original streaming news, authentic audio and video materials, and publications that relate to topics covered in the textbook and reflect everyday life and cultural events in the US and worldwide. There is required reading and writing homework, including work on-line, and there are tests and quizzes in class to work on test-taking strategies.

### **Academic English (Yearlong)**

**BN/ESL/AE - Prerequisites:** Test results for ESL Level 4 using a secure placement test administered by CATS Academy Boston (new students only) or successful completion of ESL Level 3 course at CATS.

The English as a Second Language (ESL) Level 4 course is specifically designed for international students who are at the *HIGH INTERMEDIATE* comprehension level of the English Language and who plan to continue with their education in a US/UK university/college where English is the medium of instruction. It helps students to build confidence in the proper use of academic English grammar, enrich their academic English vocabulary, and practice the command of academic English. While the main focus of the ESL Level 4 course is to work on English grammar and vocabulary, the course is also aimed at further developing and mastering students' advanced skills in English for Academic Purposes (EAP): writing, reading, speaking, listening comprehension, researching, and applying those skills to the students' own subjects. Students continue working on understanding spoken and written English and the ability to speak and write clearly and effectively. Students acquire more sophisticated academic English vocabulary and presentation skills, improve writing and thinking skills developed in English, and apply critical thinking and writing skills to a variety of academic assignments, including analyzing complex texts. In addition, the course prepares for the TOEFL examination, includes extended work on academic English and TOEFL vocabulary, pronunciation skills, conversational English, and the use of idiomatic expressions. There is required reading and writing homework, including work on-line, and there are tests and quizzes in class to work on testing-taking strategies. The course is built on *Focus on Grammar* (FOG) Level 4 with *My English Lab* textbook (Pearson) and an on-line application, Membean, to address students' individual learning needs.

in mastering their vocabulary and NoRedInk to improve grammar use. It further prepares students for future TOEFL examination and may include various individual and group activities, original streaming news, authentic audio and video materials, and publications that relate to topics in the textbook and reflect everyday life and cultural events in the US and worldwide.

### **Writing & Research (Yearlong)**

**BN/ESL/WR - Prerequisites:** Test results for ESL Level 5 using a secure placement test administered by CATS Academy Boston (new students only) or successful completion of ESL Level4 course at CATS.

The English as a Second Language (ESL) Level 5 course is specifically designed for international students who are at an *ADVANCED* comprehension level of the English language and who plan in the future to continue with their education in a university or college where English is the medium of instruction. It helps students to build confidence in academic writing and master the command of academic English. While the focus of the ESL Level 5 course is mastering academic writing using proper English grammar along with academic English vocabulary, the course is also aimed at developing and enhancing other skills in English for Academic Purposes (EAP): writing, reading, speaking, listening comprehension, researching skills, and applying those skills to students' own subjects. Students master their understanding of spoken and written English and the ability to speak and write clearly and effectively. Students enrich their academic vocabulary and presentation skills, increase critical thinking skills developed in English, and apply critical thinking and writing skills to a variety of academic assignments, including analyzing complex texts. In addition, the course prepares for the TOEFL examination including extended work on academic English and TOEFL vocabulary, pronunciation skills, conversational English, and the use of idiomatic expressions. There is required reading and writing homework, including work on-line, and there are tests and quizzes in class to work on test-taking strategies. The course is built on the "Longman Academic Writing Series" *Level 4* textbook (Pearson) and on-line applications, Membean to address students' individual learning needs in mastering their vocabulary and NoRedInk to improve grammar use. The course prepares students for future TOEFL examination and may include various individual and group activities, original streaming news, authentic audio and video materials, and publications that relate to topics in the textbook and reflect everyday life and cultural events in the US and worldwide. There is required reading and writing homework, including work on-line, and there are tests and quizzes in class to work on test-taking strategies.

## **HEALTH AND WELLNESS**

### **Health (semester course offered fall and spring)**

#### **BN/HEALTH – No Pre-requisite**

In line with the School's Mission to educate the whole child, CATS Academy offers a Health and Wellness program that emphasizes the importance of knowledge, attitudes, and practices relating to personal health and wellness. The course is designed to expose students to a broad range of issues and information relating to various aspects of personal health including nutrition, physical fitness, drugs, tobacco, alcohol, and sexuality. Students also take CPR as part of the course. In addition to these topics, students participate in a Physical Education class once a week as a requirement of this course.

## MATHEMATICS

### **Integrated Mathematics I (Yearlong)**

**BN/MAT/IM1 No Pre-Requisite**

In this course, students study the foundations of Algebra and Geometry. Students build an understanding of variables, expressions, and equations. They learn to write and solve linear equations and then apply equations to angles, triangles, and polygons in Geometry. Students learn to work with equations of lines and segments on the coordinate plane, as well as solve systems of equations using various methods. Students also explore basic statistics.

### **Integrated Mathematics II (Yearlong)**

**BN/MAT/IM2 – Pre-requisites:** Integrated Math I or Placement Interview.

In this course, students continue their study of Algebra and Geometry, completing the second semester of each subject. Students study similarity, right triangles, trigonometry, area, and volume. They also study exponents, quadratic functions, and polynomials. Students continue their study of statistics, including probability, and explore patterns and sequences as well.

### **Fundamentals of Algebra II (Yearlong)**

**BN/MAT/FA2 – Pre-requisites:** Completion of Integrated II and recommendation of the instructor.

This course builds on what students have learned in Integrated Math classes and is intended for students not planning on studying Pre-calculus in the future. Students will continue their studies of linear, quadratic, exponential, and polynomial functions with particular emphasis on practical applications.

### **Algebra II (Yearlong)**

**BN/MAT/ALG2 – Pre-requisites:** Successful completion of Integrated Math 1 and 2 or Placement Interview.

This course builds on what students have learned in Integrated Math. Students in the course develop advanced algebra skills such as solving systems of equations, factoring advanced polynomials, and understanding imaginary and complex numbers. Students also study rational functions and conic sections. The focus for all the topics is on problem-solving and developing formal mathematical language in English. The mathematical training in this course is important as preparation for the ACT and SAT, as well as future courses in Precalculus and Calculus. The text for the course is *Big Ideas Math: Algebra II*, and the course makes use of the TI-84 graphing calculator.

### **Algebra II Honors (Yearlong)**

**BN/MAT/ALG2/H – Pre-requisite:** Returning students: Recommendation of current math teacher; New students: Placement Interview.

The Honors Algebra II course covers the same material as Algebra II class but moves at a faster pace and covers additional topics. The Honors class will cover the additional unit about matrices and applications of matrices. Honors students also receive more challenging assignments and projects with the goal of developing their critical thinking skills and formal mathematical thought processes.

### **Pre-Calculus (Yearlong)**

**BN/MAT/PCAL – Pre-requisite:** Successful completion of Algebra II.

This course provides students with the skills they need to study calculus. It highlights the key methods from algebra, trigonometry, and geometry that are needed for further study. The central unifying concept is the mathematical function. The course focuses on both conceptual understanding and problem-solving ability and provides students with a deep understanding of exponential, logarithmic, polynomial, rational, and inverse functions. It also offers an introduction to sequences and series. The textbook for the course is *Functions Modeling Change: A Preparation for Calculus 5<sup>th</sup>* ed. by Connally *et. al.*, and the course makes extensive use of the TI-84 graphing calculator.

### **Pre-Calculus Honors (Yearlong)**

**BN/MAT/PCAL/H – Pre-requisites:** Returning students: A- or higher in Algebra II College Prep; B or higher in Algebra II Honors; ESL Level 3 or higher; recommendation of previous instructor. Newstudents: ESL Level 3; successful completion of Algebra II; placement interview.

The Honors Pre-Calculus class covers the same material as the College Prep class but moves at a faster pace and covers additional material as a preview of calculus. Some additional topics include polar functions, sequences and series, and an introduction to limits and derivatives. Honors students also receive more challenging assignments and projects with the goal of further developing their critical thinking and logic skills and keeping them fully engaged.

### **Discrete Mathematics (Semester or Yearlong Class)**

**BN/MAT/DMAT – Pre-requisites:** Successful completion of Algebra II or instructor approval.

Discrete Math utilizes a first-year college textbook and introduces a survey of topics in mathematics, including problem solving, set theory, logic, number theory, probability, statistics, and graph theory. Students have not previously had the opportunity to study this content in the Integrated Math and Algebra II sequence. This greatly enhances students' understanding of topics included in the broader field of mathematics. Students taking this course enhance their ability to make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, and look for and express regularity in repeated reasoning.

### **History of Ancient Mathematics (one semester offered fall)**

**BN/MAT/HAM – Pre-requisites:** Algebra II, ESL 4 or higher.

Through this course we will gain a greater appreciation of mathematics as a human endeavor created by a diverse group of individuals. We will apply a historical perspective to analyze the conventions and norms of communication adopted by mathematicians. In this semester we will look at how number systems were created by Egyptians, Mayans, Greeks, and Babylonians. We will also look at how algebra was developed in the Middle East, China, and Europe. There will be no tests or exams in this course. This course is entirely based on projects and participation during the class.

### **History of Modern Mathematics (one semester offered spring)**

**BN/MAT/HMM – Pre-requisites:** Algebra II, ESL 4 or higher.

Through this course we will gain a greater appreciation of mathematics as a human endeavor created by a diverse group of individuals. We will apply a historical perspective to analyze the conventions and norms of communication adopted by mathematicians. In this semester we will look at mathematical discoveries that were made more recently and interesting applications. We will look at applied geometry in the real world, different voting systems, and how to fairly share resources. We also discuss how infinity is invented and some different types of infinity. Students do not need to take the first semester of history of math to do well in this course. There will be no tests or exams in this course. This course is entirely based on projects and participation during the class.

### **Abstract Mathematical Thought Honors (Yearlong)**

**BN/MAT/MTT/H – Pre-requisite:** Recommendation of current math teacher.

Introduction to Abstract Mathematical Thought introduces a survey of topics not previously covered in the traditional high school algebra to calculus sequence, including formal logic, set theory, number theory, and graph theory. This greatly enhances students' understanding of topics included in the broader field of mathematics. While the topics in this course have some overlap with those covered in Discrete Mathematics, there is a much greater focus on constructing formal mathematical proofs. Students will learn a variety of proof-writing techniques and approaches, including direct proof, proof by contradiction, proof by contrapositive, and proof by induction and disproof by counterexample.

By viewing the mathematical world as a series of conjectures that must be proven or disproven, as opposed to theorems that are simply applied, students gain an insight into and appreciation for how the mathematics was developed. By the end of the course, students will have developed both the skills and mindset necessary for discovering new mathematics.

### **Calculus Honors (Yearlong)**

**BN/MAT/CAL/H – Pre-requisites:** Returning students: Recommendation of previous instructor. New students: ESL Level 3; placement interview.

Calculus Honors is an introduction to differential and integral calculus with a single variable. Students are introduced to limits, derivatives, integrals, the fundamental theorem of calculus, the mean value theorem, differential equations, optimization problems, and a variety of other topics and their applications to real-world problems. The course includes most of the material in AP Calculus but at a more relaxed pace, and the AP exam is not a component of this course.

**AP Calculus AB (Yearlong)**

**BN/MAT/CAL/AP – Pre-requisites:** Returning students: ESL Level 4 or higher; A- or higher in previous course; recommendation of previous instructor. New students: ESL Level 4; placement test results.

Students prepare for the Advanced Placement Test in order to gain college credit while learning topics in Single Variable Calculus. Students are introduced to limits, differential equations, the derivative, points of tangency, slope fields, optimization problems, the fundamental theorem of calculus, mean value theorem, integration, application of calculus, and a variety of other topics that will provide real world examples as to the importance of calculus. The textbook for the course is Rogawski's *Calculus for AP*. Taking the Advanced Placement test is a mandatory component of this course. Upon completing this course, students are eligible to take Multivariable Calculus or an independent study in mathematics.

**Multivariable Calculus Honors (Yearlong)**

**BN/MAT/MCAL/H - Prerequisite:** Successful Completion of AP Calculus AB and recommendation of Calculus Instructor.

Students in this course continue their study of calculus begun in AP Calculus AB and complete their preparation for the BC level of the Advanced Placement examination in calculus to be taken in the spring. Coverage includes integration by parts and by partial fractions, improper integrals, first order separable differential equations, infinite series and power series, and parametric and polar coordinates. Students continue their study of mathematics by extending their knowledge to the calculus of three-dimensional space. Partial differentiation and multiple integration are the main areas of study. Students must have a TI-84 Plus graphing calculator and must take the College Board BC Calculus exam at the end of the year.

**Introduction to Statistics (Yearlong)**

**BN/MAT/STAT - Prerequisites:** Successful completion of Algebra II.

This course provides a basic introduction to statistics. It is recommended for students who are interested in business, social science, human resources, and criminal justice, and it provides an excellent preparation for any career. Topics include descriptive statistics, probability, probability distribution, normal distribution, hypothesis testing, estimates and sample sizes, the chi square distribution, correlation, and regression. The course is a critical thinking course as well as an analytical one, where students do many projects. This course also provides an overview on how to collect, analyze, interpret, and display data from various real-life sources and topics.

**Statistics Honors (Yearlong)**

**BN/MAT/STAT/H – Pre-requisites:** Returning students: A- or higher in previous Math course; B or higher in previous Honors Math course; ESL Level 3 or higher; recommendation of previous instructor. New students: ESL Level 3; placement interview.

Students expand their understanding of data collection and the role of statistics in making inferences from data. Applications from realistic contexts such as business and economics, the social and physical sciences, healthcare, education, engineering, and leisure activities are examined throughout the course. Students



use realistic data that they collect and analyze for class assignments and projects. The course includes some of the topics in AP Statistics but at a more relaxed pace, and the AP exam is not a component of this course.

### **AP Statistics (Yearlong)**

**BN/MAT/STAT/AP – Pre-requisites:** Returning students: ESL Level 4 or higher; A- or higher in previous math course; recommendation of previous instructor. New students: ESL Level 4 and placement interview.

The purpose of AP Statistics is to demonstrate a range of relevant everyday issues that can be addressed with the help of statistical analysis. This course is meant to expand the understanding of data collection and the role of statistics in making inferences from data. Applications from realistic contexts such as business and economics, the social and physical sciences, healthcare, education, engineering, and leisure activities are examined throughout the course. Students use realistic data that they collect and analyze for class assignments and projects. Preparation towards the AP Examination highlights the four major disciplines within the Statistics class: Exploring Data, Sampling, Probability, and Inference. The primary textbook used is *The Practice of Statistics for AP*, 4<sup>th</sup> Ed. by WH Freeman. Students also use the following resources: [www.collegeboard.com](http://www.collegeboard.com) and [www.apstatsmonkey.com](http://www.apstatsmonkey.com) and use TI-84 Plus Calculators.

### **Game Theory (semester course offered fall)**

**BN/MAT/GT – Pre-requisites:** ESL Level 3 or higher; Integrated Math 2; instructor approval.

Game theory utilizes both popular and more contrived games as well as an accessible text to provide a fun and engaging introduction to the fundamentals of strategic decision-making. Through the analysis of games, students begin to understand the different roles that players can take, the behavior that constitutes the optimal strategy for playing these roles, and the behavior that constitutes the optimal strategy for assisting or countering these roles. Using this knowledge, students interpret the current behavior of teammates and/or opponents in an attempt to determine their roles, recall the optimal strategy associated with these roles, predict the future behavior of other players based on their optimal strategy, formulate their own optimal strategy to best assist teammates and/or counter opponents, recall the role associated with this strategy, and implement the strategy by behaving in accordance with the calculated role. Furthermore, students gain an appreciation for how these concepts can be applied to fields including but not limited to Business, Economics, Political Science, Computer Science, Logic, Biology, and Philosophy.

### **Applications of Game Theory (semester course offered spring)**

**BN/MAT/AGT – Pre-requisites:** Game Theory or permission from instructor.

Using concepts learned in Game Theory, students research popular board games with the aim to design, refine, and construct an original board game. Additionally, students learn how to sell a refined and marketable game to a publisher. This process is ultimately split into four major phases: research, development, refinement, and sale.

### **Differential Equations (Honors)**

**BN/MAT/DE/H – Pre-requisites:** A 4 or higher on the Calculus BC exam or permission from instructor.

This is a course for students who have already completed Calculus BC and would like to study more calculus. This course is equivalent to a college-level semester of Differential Equations. Topics covered are first order differential equations, second order linear equations, higher order linear equations and series solutions of second order linear equations. This independent study course will focus on problem-solving and project-based applications of differential equations.

### **The Mathematics of Personal Finance (Semester Course, offered in both fall and spring)**

**BN/MAT/FIN - Prerequisites:** Completion of Algebra II and ESL 3 or higher.

Do you have what it takes to complete this project-based course? Believe it or not, you do! Not only will you learn to possess what it takes to have the mathematical mindset necessary to navigate everyday-life scenarios as an adult, but you will develop top-notch presentation skills (which are required for many occupations following college graduation). Do not go into life unprepared for the financial riddles to be thrown your way. This course will help you to understand and practice the skills necessary to navigate the financial world. We will cover topics included budgeting, extended car warranties, high-interest savings accounts, credit card debt, college loans and repayments etc.

## **SCIENCE**

### **Anatomy and Physiology (semester course offered fall and spring)**

**BN/SCI/APH – Pre-requisites:** Enrolled in ESL Level 3

This anatomy and physiology course will begin with the history of dissection and human anatomy through the works of Galen, Vesalius and Da Vinci. This will give historical context and appreciation for how far the study of human anatomy has come in order to understand the body's form and function as we do in present day. Then we will study human anatomy focusing on the muscular and skeletal systems through current resources (texts and videos etc.) and through dissections. The laboratory portion of this course will be dissection based and will begin with more simple creatures (such as mussels, squid, and worms) to explore animal Anatomy in depth and gain first-hand experience conducting scientific dissections. The year will culminate in small lab partner groups participating in the dissection of either a fetal pig or feral cat.

### **Integrated Science (Yearlong)**

**BN/SCI/GS - Requirement:** Enrollment in ESL Level 2.

This course is a broad survey of science topics. During the course of the year, students look at three broad units on the fundamental concepts and vocabulary of chemistry, physics, and biology. In addition to reading conducting exercises from our textbook, students are engaged in using and developing the skills of science. These include, but are not limited to, making observations, forming questions and hypotheses, conducting experiments and research, analyzing results, and presenting conclusions in both written and oral formats.

### **Biology (Yearlong)**

**BN/SCI/BIO – Pre-requisites:** Returning students: recommendation of previous instructor. New students: placement test.

Biology gives a general overview of topics in biology as well as the practice of science in general. Through coursework students learn classical biology content as well as recent developments in the field. Instructors integrate hands-on/minds-on activities, seminar-style discussions, group work, and direct instruction to reach these goals. The course also focuses on questions of how science is performed and how scientists make discoveries by including topics in the history of biology and by encouraging students to develop a scientific mind frame and to continue as lifelong science learners. Topics include Inquiry and the Scientific Method, Life Fundamentals and Biochemistry, Cell Structure and Function, Heredity, Molecular Genetics, The Human Body and Homeostasis, Human Reproduction and Development, Evolution, and Ecology.

### **Biology Honors (Yearlong)**

**BN/SCI/BIO/H Pre-requisites:** ESL level 3 or higher. Returning students: recommendation of previous teacher. New students: placement test.

In Honors Biology as a one-year course, we take a hands-on collaborative approach to doing projects and experiments in biology. Topics include, but are not limited to, cellular structure and functions, genetic materials and regulation, ecosystems, energy cycles and habitat conservation, and evolution of organisms and their physiology. Although we utilize a textbook as a primary source, current topics from scientific literature are used in research and discussions. By the conclusion of this course, students should not only be able to understand processes of biology but to think like a scientist, design experiments, and problem solve as a group.

### **AP Biology (Yearlong)**

**BN/SCI/BIO/AP – Pre-requisites:** ESL Level 3 or higher; A- or higher in CP Biology or Honors Biology at CATS or another American school. Returning students: recommendation of current or previous instructor. New Students: placement test.

AP Biology is a one-year intensive course designed to mirror a college-level introductory biology course. Students learn a wide range of biological concepts, principles, and skills that prepare them for future learning in biology and the sciences in general. Students also prepare to take the AP Biology exam at the end of the year. The AP Biology curriculum is based on four big ideas called “enduring understandings.” These big ideas can be distilled down to evolution, energy flow, genetics and heredity, and interactions and ecology. Throughout the course, these big ideas permeate all topics and serve to connect all concepts. Students spend about 30 percent of class time performing labs. There are 13 inquiry-based labs that are emphasized for AP Biology. Labs require a large amount of autonomy from students and are student driven. These labs give students experience with everything from animal behavior to mathematical modelling to advanced biotechnology techniques and help to reinforce the four big ideas of the course. By the end of the year, students are not only equipped to perform well on the AP Biology exam but will have a very solid foundation in their biology and science education as they continue through high school and into college.

### **Chemistry (Yearlong)**

**BN/SCI/CHE – Pre-requisites:** ESL Level 3 or higher. Returning students: recommendation of previous instructor. New Students: placement test.

This class is an introduction to chemistry and problem solving and is offered for students with rudimentary English. Students gain a good understanding of the methods and principles of modern chemistry and develop strong analytical problem-solving skills. Course topics include states of matter, atomic theory, periodicity of elements, chemical bonding, stoichiometry, intermolecular forces and physical changes in matter, gas laws, thermodynamics, kinetics and equilibrium, acids and bases, and oxidation-reduction.

### **BN/SCI/CHE/H - Chemistry Honors (Yearlong)**

**Pre-requisites:** ESL Level 3 or higher; previous Algebra experience. Returning students: recommendation of previous instructor. New Students: placement test.

Chemistry Honors is a challenging college-preparatory course that studies the physical structure of matter, its interactions through chemical reactions, and the role of energy in these interactions. Classroom discussions, group activities, demonstrations, practice in analytical problem-solving, and laboratory investigations are emphasized throughout this course. Course topics include states of matter, atomic theory, periodicity of elements, chemical bonding, stoichiometry, intermolecular forces and physical changes in matter, gas laws, thermodynamics, kinetics and equilibrium, acids and bases, and oxidation-reduction. Students gain a good understanding of the methods and principles of modern chemistry and develop strong analytical problem-solving skills. In addition, students are eligible to take AP Chemistry or Biology and the SAT II subject test in Chemistry.

### **AP Chemistry (Yearlong)**

**BN/SCI/CHE/AP – Pre-requisites:** ESL Level 3 or higher; A- or above in CP Chemistry or B+ or higher in Honors Chemistry; concurrent enrollment in Pre-Calculus or above. Returning students: recommendation of previous instructor. New students: placement test.

AP Chemistry is the equivalent of a first-year college level chemistry class. This course builds on concepts developed in Chemistry or Honors Chemistry by going into greater depth and detail in such areas as chemical reaction mechanisms, chemical equilibrium, reaction rates, acid-base chemistry, and electrochemistry. Class discussions, laboratory investigations, and analytical problem-solving are emphasized throughout the course. The laboratory portion of AP Chemistry introduces students to a variety of analytic chemistry techniques and makes use of the Vernier LabQuest Data collection system for plotting and analyzing data. All students are required to take the AP Chemistry exam in May.

### **Organic Chemistry (semester fall and spring or both)**

**BN/SCI/OCH -Pre-requisites:** Chemistry Honors with C or Better, ESL Level of 3 or higher

Organic Chemistry Lecture topics include Fundamental concepts of the carbon-containing compounds will be introduced. Topics include nomenclature, electron delocalization, resonance, stereochemistry, conformational analysis, synthesis, structure and reactivity relationships and spectroscopy. Lab skills learned include Understanding of laboratory safety, organic laboratory techniques used to separate, identify, and purify chemicals, and selected instrumental analysis. Laboratory techniques to be mastered include, but are not limited to, filtration, distillation, extraction, evaporation, recrystallization, sublimation, centrifugation, chromatography, and spectrophotometry.

### **Physics (Yearlong)**

**BN/SCI/PHY – Pre-requisites:** ESL Level 3 or higher and current enrollment in Algebra II or higher. Returning students: recommendation of previous instructor. New students: placement test.

This class is an introductory physics course taught at the high school level for students at the Intermediate level of English as a Second Language. Physics College Prep includes kinematics, forces, work, energy, power, circular motion and orbits, momentum, torque, and possibly an introduction to advanced topics as well. By the end of this course, students can interpret word problems and real-life situations and make quantitative statements relating physical quantities like location, velocity, acceleration, energy, and force to each other. Students can exercise independent thought in carrying out and devising laboratory experiments that confirm these relationships. Skills to be learned include the ability to solve word-based problems involving physical quantities, using techniques from geometry, trigonometry, and algebra and the ability to infer from primary data in laboratory experiments various physical constants and experimental parameters. Students are assigned individual work to be completed outside of class, as well as quizzes and exams.

### **Physics Honors (Yearlong)**

**BN/SCI/PHY/H – Pre-requisites:** ESL Level 3 or higher; current enrollment in Pre-calculus or higher. Returning students: recommendation of previous instructor. New students: placement test. Honors Physics is a challenging introduction to physical reasoning. In this course, students study concepts including momentum, energy, forces, simple harmonic motion, and waves, along with how these concepts are related to one another. Although these topics overlap with those in College Prep Physics, the Honors class goes at a faster pace and in greater depth, so that students take away a deeper understanding of the material. Students also have an opportunity to research notable scientists who contributed to the development of the field and, time permitting, are introduced to ideas from relativity and quantum physics. In the laboratory component of the class, students learn about experimental design and data analysis while studying physical systems.

### **Physics II (semester course offered fall and spring or both)**

**BN/SCI/PHY2 – Pre-requisites:** Geometry; ESL3 or higher; prior content knowledge of physics that includes forces.

High school students are often exposed to mechanics topics repeatedly - including kinematics, forces, energy, and momentum - but do not often have the opportunity to learn a number of other interesting topics, which specifically also appear on the SAT Physics exam. This class covers the science of light (optics), heat (thermodynamics), waves, and the fundamentals of electricity and magnetism. This course is recommended for students who are interested in learning about these fascinating topics and/or are interested in preparing for the SAT Physics exam.

### **AP Physics C Mechanics (Yearlong)**

**BN/SCI/PHY/CM/API – Pre-requisites:** ESL Level 3 or higher; A- or higher in CP Physics or B+ in Honors Physics at CATS or another American school; previously completed or currently enrolled in Calculus. Returning students: recommendation of previous instructor. New students: placement test.

AP Physics C: Mechanics is an Advanced Placement course taught at a college level and includes the use of calculus to study topics of physics. The level and use of calculus in this class necessitates that students have already taken a year of physics and either have completed a year of calculus or are taking calculus at the same time as Physics AP C. This is a laboratory-based course, and students are expected to spend

about a quarter of their time on laboratory experiments. Topics that are covered in Physics AP C include kinematics; Newton’s laws of motion; work, energy, and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. By the conclusion of this course, students are able to solve mathematical, word-based, and real-life problems in physics.

### **STEAM LAB**

**Pre-requisites: STEAM lab students should have taken either a Robotics, Electronics or 2D/3D Design and Fabrication class**

This class is an opportunity for students who have already developed some skills in robotics, electronics and/or 2D/3D Design and Fabrication to spend a class period realizing a large project that interests them. CATS robotics team members can work on tasks related to building and coding the school's competition robot. Students will be provided with the guidance and supervision they need to be successful in realizing their projects as well as access to innovation lab equipment and supplies including computers, a laser cutter, 3D printers, robotics equipment, micro-controllers, sensors, soldering equipment, mechanical and electronic tools, and other related materials. Students will be asked to submit a project plan that includes achievable milestones and document their progress weekly. This class is an ideal opportunity to create projects for college application portfolios.

### **SOCIAL SCIENCE**

#### **American Studies (Yearlong)**

**BN/SS/AS - Requirement:** Enrollment in ESL 2

American Studies is a one-year course in American history for students who test at ESL Level 2. After passing two semesters of American Studies, students are required to take US History and fulfill any additional requirements in order to graduate. American Studies has a more basic text than the college prep courses, and its reading and writing assignments are not as advanced. Like the US History Survey courses, American Studies focuses on themes and relevance.

#### **World History I (Yearlong)**

**BN/SS/WH1 – Pre-requisites:** ESL Level 3 or higher; placement test results.

World History is a one-year social science course. Over two semesters, it examines cultural and historical issues that are relevant in the world today. This course emphasizes academic skills, especially reading, writing, and note-taking. Students use statistics, maps, primary sources, images, and reference materials. Content includes an introduction to Judaism, Islam, Christianity, and the history of the Middle East. Activities may include visits to local churches, mosques, and temples. This course helps students see how individuals like themselves shape history and community.

#### **World History I Honors (Yearlong)**

**BN/WH1/H – Pre-requisites:** ESL Level 4 or higher; placement test results; recommendation of instructor and Social Science department chair.

World History Honors is a one-year social science course. Over two semesters, it examines cultural and historical issues that are relevant in the world today. This course emphasizes academic skills, especially reading, writing, and note-taking. Students explore the relationship between themes and details,

relevance, sequence, and investigation. They use statistics, maps, primary sources, images, and reference materials. In addition, World History Honors students do more advanced reading and writing assignments. Content includes an introduction to Judaism, Islam, Christianity, and the history of the Middle East. Activities may include visits to local churches, mosques, and temples. This course helps students see how individuals like themselves shape history and community.

### **United States History (Yearlong)**

**BN/SS/USHIS – Pre-requisites:** ESL Level 3 or higher.

United States History is a one-year social science course. This course is required for all CATS Academy Boston students as part of their three-year social science requirement for graduation. It helps students be successful in college-level social science courses or AP United States History. US History takes a thematic approach to US history, surveying topics like immigration, reform, civil rights, national government, race, and gender in United States history. Events are studied for relevance to today's issues. Excerpts from films, books, and primary sources present different perspectives on the past. United States History students develop skills of note taking, analytical reading, writing, and research.

**United States History Honors (Yearlong)**

**BN/SS/USHIS/H – Pre-requisites:** ESL Level 4 or higher; recommendation of instructor and Social Science department chair. New students must have these grades in history courses at previous school and recommendation of instructor and Social Science department chair.

United States History Honors is a one-year honors social science course that meets the US history graduation requirement from CATS. This course helps students be successful in college-level social science courses or AP United States History. United States History Honors takes a thematic approach to US history, examining topics like immigration, race, gender, reform, civil rights, national government, imperialism, and overseas commitments in US history. Events are studied for relevance to today's issues. Excerpts from films, books, and primary sources present different perspectives on the past. Students develop skills of notetaking, analytical reading, writing, and research. In addition, United States History Honors students read more primary and secondary sources and make more presentations.

**Contemporary Issues (semester course offered fall and spring or both)**

**BN/SS/CI – Pre-requisite:** ESL 3 or higher.

This course introduces the issues that dominate the news throughout the year. The focus is on current events and related debates in the United States and around the world. By studying social, political, and economic issues, students gain insight into their own place in history and the relevance of today's events to historical themes. In addition to raising students' awareness of world history, the course develops their skills of analysis, reading, writing, and speaking.

**World History II: Global Conflicts (Yearlong)**

**BN/SS/WH2 Pre-requisites:** ESL Level 3 or higher.

Events throughout the history of humanity have shown us that there lies a dark side to human nature. This course examines specific case studies of events in Latin America, Asia, Africa, and Europe during the 20<sup>th</sup> Century. An examination of social and political history and geography provides students with a comprehensive understanding of the events that occurred in the regions of Latin America, Asia, Africa, and Europe. Students view events through a multicultural lens in an attempt to understand the unfolding of events through a multiplicity of cultural identities involved in those events. The skills of interpreting charts, primary sources, political cartoons, and other historical documents are also developed.

**World History II: Global Conflicts Honors (Yearlong)**

**BN/SS/WH2/H – Pre-requisites:** ESL Level 4 or higher; recommendation of instructor and Social Science department chair.

Events throughout the history of humanity have shown us that there lies a dark side to human nature. This course examines specific case studies of events in Latin America, Asia, Africa, and Europe during the 20<sup>th</sup>



Century. An examination of social and political history and geography provides students with a comprehensive understanding of the events that occurred in the regions of Latin America, Asia, Africa, and Europe. Students view events through a multicultural lens in an attempt to understand the unfolding of events through a multiplicity of cultural identities involved in those events. The skills of interpreting charts, primary sources, political cartoons, and other historical documents are also developed.

In addition to more rigorous assignments and academic readings, students will complete a research paper as part of their course requirements.

### **Legal Concepts and Practice Honors (semester course offered fall and spring)**

**BN/SS/LAW/A - Prerequisites:** ESL Level 4 or higher; recommendation of instructor and Social Science department chair.

The legal profession is practiced worldwide, and attorneys are valued for their ability to analyze and solve complex problems. This course is designed to provide students with the opportunity to learn and practice problem solving skills and legal analysis. Students utilize case studies, mock trial, projects, and activities to gain an understanding of the legal process, how attorneys analyze and litigate cases as well as how courts determine outcomes. Students practice what they learn by working with a team to prepare and present a legal case in a mock trial. In this course, students sharpen their critical thinking and oral presentation skills as well as gain an understanding about what it is like to practice law or work with lawyers in a corporate setting or law firm.

### **History of Rock and Roll (semester course offered fall and spring)**

**BN/SS/HRR -No pre-requisite**

Discover the history of Rock 'n' Roll in more detail than you can imagine. In Rock History, you will learn where rock music started, how it evolved, its highs and lows, its outlaws and visionaries, and how it changed social history by combating racism and challenging the establishment with alternate lifestyles and fashions. Students will explore many of the revolutionary artists who defined rock 'n' roll, as well as the unsung heroes in genres from rockabilly to psychedelia, punk, metal and beyond. Students will learn about musical and business trends in rock, major technological innovations, the prime innovators, and the historical context that has seen rock alternately flourish and struggle over the past 60 years.

### **Introduction to Philosophy (semester course offered fall and spring)**

**BN/SS/PHIL – Pre-requisite:** ESL Level 3 or higher.

This course is a survey of Philosophy that challenges students to see how philosophy has been used in history as a way for humans to understand themselves and the nature of reality. The course examines both Eastern and Western philosophical traditions. Students also have the opportunity to examine their own philosophy and goals. This is a course that develops students' powers of analysis, reading, writing, and speaking.

**American Film History (semester course offered fall & spring)**  
**BN/SS/AFH Pre-requisite: ESL 3 or higher**

This is a one semester course which is meant to give students a general history of American cinema and the Hollywood film industry. It starts in the early 1900s with the Silent Film era and then continues into the “Golden Age” of the studio system in the 1930s, 40s, and 50s, followed by the New Wave era of the 1960s and 70s, and finally the Blockbuster from the late 1970s to the present day. Throughout the course we will look at films of various genres and analyze them in terms of style and content. We will also study the evolution of the film industry itself and how that influenced the movies that got made. Although the course focuses on American movies, we will study how they were influenced by films from other countries.

**The Cold War: 1945-1993 (semester course fall/spring)**  
**Pre-Requisites: Level 3 ESL or higher**

The course will cover the history of the Cold War 1945-1993 from a third person international perspective. It will delve into the various ideologies of the two superpowers as well as those of their proxies during this conflict. The students will look at the triumphs of technology, espionage, tragedies, and progress during these turbulent years; and gain a better understanding of international policy.

**Macroeconomics (semester course offered fall)**  
**BN/SS/MAC Pre-requisite: ESL Level 3 or higher.**

This one-semester Social Science elective (fall only) is paired with one semester of Microeconomics CP to make a one-year college prep course in Economics. These courses are part of the CATS Innovation Program and prepare students to succeed in college-level or AP Economics. In Macroeconomics CP, students learn how economic decisions are made at the national and international level. They examine economic systems around the world and economic policymaking in the United States. Students learn about markets, industries, trade, banking, finance, economic indicators, economic policy, and the Federal Reserve. Students also learn about the new economy, management, and entrepreneurship.

**Microeconomics (semester course offered spring)**  
**BN/SS/MIC – Pre-requisite:** ESL Level 3 or higher.

This one-semester Social Science elective (spring only) is paired with one semester of Macroeconomics CP to make a one-year college prep course in Economics. These courses are part of the CATS Innovation Program and prepare students to succeed in college-level or AP Economics. Microeconomics CP focuses on industries and companies at the local and regional level. Students learn about start-ups and Boston's high-tech and R-and-D (research and development) fields. Each student presents a term project about a company from these or traditional New England industries like defense, paper and logging, fishing, food processing, farming, retail sales, wholesale distribution, transportation, tourism, education, and telecommunications. Students may also choose a company from the financial sector: banking, real estate, venture capital, investment banking, consulting, insurance, securities, and mutual funds. As part of Microeconomics CP, students visit companies and meet professionals from business and government.

**AP US Government and Politics (Yearlong)**

**BN/SS/UGP/AP – Pre-requisites:** ESL Level 4 (ESL Level 5 preferred); recommendation of instructor and department chair.

Study the key concepts and institutions of the political system and culture of the United States. You will read, analyze, and discuss the U.S. Constitution and other documents as well as complete a research or applied civics project.

**AP United States History (Yearlong)**

**BN/SS/USHIS/AP – Pre-requisites:** ESL Level 4 (ESL Level 5 preferred); and recommendation of instructor and Social Science department chair.

This is a one-year Social Science elective that prepares students for the AP United States History exam. Students have usually had at least one year of American history before taking this course. AP United States History is a college-level course with potential for college credit. AP United States History helps prepare students for social science courses in college. Students examine historical documents and argue about social, political, and economic history from 1600 to the present. In order to manage the large number of facts, students must have a good grounding in the themes of American history. This class helps students understand evidence, relevance, cause and effect, and points of view. Students will prepare a research paper in the fall semester. In the spring semester, after the AP exam, students present an American history research project on a topic of their choice.

**AP Macroeconomics (Yearlong)**

**BN/SS/MAC/AP – Pre-requisites: ESL Level 4 (ESL Level 5 preferred); recommendation of instructor and department chair.**

AP Macroeconomics is an introductory college-level macroeconomics course. Students cultivate their understanding of the principles that apply to an economic system as a whole by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like economic measurements, markets, macroeconomic policies.

**AP Microeconomics (Yearlong)**

**BN/SS/MIC/AP – Pre-requisites: ESL Level 4 (ESL Level 5 preferred); recommendation of instructor and department chair.**

AP Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.

**AP Human Geography (Yearlong)**

**BN/SS/HG/AP – Pre-requisite: ESL 4 or higher; recommendation of instructor and Social Science department chair.**

AP Human Geography course is an introductory college-level course in Human Geography. As history is a study of time and events, human geography is a study of place and events. Students in this course focus on economic development and introduction to social science. The course includes topics like the environment, health care, religion, and education around the world and in history. Knowledge of geographers' methods and tools is also part of the course. AP Human Geography emphasizes acquisition of college-level vocabulary and concepts. Students are required to take the AP Human Geography exam.

**AP World History (Yearlong)**

**BN/SS/WH/AP – Pre-requisites: ESL Level 4 (ESL Level 5 preferred); recommendation of instructor and department chair.**

This is a one-year Social Science elective that prepares students for the AP World History exam. Students study ancient civilizations, world religions, the Renaissance, the Industrial Revolution, global imperialism, and world conflicts. AP World History is a college-level course with potential for college credit. AP World History helps prepare students for social science courses in college. Students are assessed through rigorous quizzes and tests, oral presentations, and midterm and final examinations. In addition, students write a ten-page research paper and present their findings in a public setting. The course requires seven hours of homework per week and is open to juniors and seniors.

## **TECHNOLOGY**

### **AP Computer Science A (Yearlong)**

**BN/TECH/CS/AP – Pre-requisites:** ESL Level 4 and completion of Algebra II or instructor approval.

The Advanced Placement Computer Science A course is taught using the Java programming language. The course objectives are to understand object-oriented software design, to gain fluency in Java, to improve proficiency in selecting appropriate algorithms and data structures, to understand algorithm efficiency especially regarding sorting, and perhaps most importantly to prepare for the AP Computer Science A exam. There are a variety of exercises, labs, and case studies in this course.

### **Introduction to Programming (Yearlong)**

**BN/TECH/PRO – Pre-requisites:** Completed Algebra 1. ESL 3 or above.

Introduction to Programming is an exciting course where students will learn the basics of Web Design, and Java. The course will give students the chance to do hands on work to learn through experience. They will be given the chance to explore the amazing world of website creation in ways that focus on both functionality and aesthetics. In the fall the students will learn HTML, CSS, and JavaScript then we will switch to Object Orientated Programming while using Java. By the end of the year each student will have a diverse portfolio of completed projects.

### **3D Printing and Laser Cutting Design (semester course offered fall and spring)**

**BN/TECH/PLC No-Prerequisite**

Students will learn how to plan, design, and build 2-D and 3-D objects fabricated with a 3-D printer and laser cutter through multiple design challenges. Students will use CAD software.

### **Fundamentals of Electronics (semester course offered in fall and spring)**

**BN/TECH/ELE - No-Prerequisite**

Students will gain an understanding of the basic principles, theories and laws of electronics and will learn how to create electric circuits, measure voltage, make a battery, use a breadboard, solder, create switches and sensors and use microcontrollers to control circuits.

### **Robotics (semester course offered fall and spring)**

**BN/TECH/ROB** Pre-requisites: ESL Level 3

This class introduces students to the exciting world of robots. Students learn to identify what a robot is and what it is not. They study the myths that surround robots, examine how robots are used in popular media and stories, and consider applications of robotics in many aspects of technology and human experience. Through hands-on design and construction work, students explore how robots are constructed, how they operate, and what their limitations are. The class greatly benefits from lectures by experts in the field of robotics to expose students to the commercial uses of robots as well as future trends. There are field trips to local robotics companies as well as to robotics events and competition

**2D/3D Design & Fabrication (semester course offered fall and spring)  
BN/TECH/2D3DDES**

Students focus on the origins, applications, and latest trends in robotics and learn how robots are built and controlled. There is individual as well as team-based projects for students to test their ideas and compete with each other as well as with outside teams.

**WORLD LANGUAGES**

**French Level I (Yearlong)**

**BN/WL/FRE1 – Pre-requisite:** ESL Level 3; instructor approval.

French I is a year-long general introduction to the French language for beginning students and follows the rigor as well as the scope and sequence of a regular ACTFL-based high school language course. Students communicate across the four skills of reading, writing, speaking, and listening using basic French vocabulary and simple grammatical structures within the cultural norms of French-speaking societies. Some vocabulary themes are numbers, school, shopping, food, family, and the home. The major grammatical concepts are present tense verbs and gender. Activities and assignments utilize interpersonal, presentational, and interpretive modes of communication. Assessments include, but are not limited to, class participation, homework, comprehensive unit tests, short compositions, a variety of projects, and final exams. Students are frequently given assignments to be completed outside of class, as well as nightly homework. By the end of French I, students achieve a proficiency level of Novice High in all four communicative skills (reading, writing, speaking, listening) as described by the American Council of Teachers of Foreign Languages (ACTFL).

**French Level II (Yearlong)**

**BN/WL/FRE2 – Pre-requisites:** ESL Level 3; successful completion of French I or instructor approval.

French II, a year-long course, is a continuation of French I. Students communicate across the four skills of reading, writing, speaking, and listening in the interpersonal, interpretive, and presentational communicative modes within the cultural context of French-speaking societies. This course is based on the American Council of Teachers of Foreign Language (ACTFL) standards and requires nightly homework

**AP French Language and Culture**

**BN/FRE/AP – Pre-requisites:** Recommendation of instructor and World Language department chair.

AP French Language and Culture is equivalent to an intermediate level college course in French. Students cultivate their understanding of French language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and community, personal and public identity, beauty and aesthetics, science and technology, contemporary life, and global challenges.

and assignments to be completed outside of class. Topics to be studied include vocabulary related to health, hobbies, and travel and the past tenses. Assessments include class participation, homework, projects, compositions, and final exams. By the end of French II, students are expected to demonstrate a low-intermediate level of proficiency in all four skills as characterized by the ACTFL.

### **French Level III (Yearlong)**

**BN/WL/FRE3 – Pre-requisites:** ESL Level 3; successful completion of French II or instructor approval.

French III, a year-long course, is a continuation of French II. Students communicate across the four skills of reading, writing, speaking, and listening in the interpersonal, interpretive, and presentational communicative modes within the cultural contexts of France and the other Francophone countries. This course is based on the ACTFL standards and requires nightly homework and assignments to be completed outside of class. Topics studied include vocabulary related to health, technology, art and culture, and the environment, as well as the imperative and subjunctive modes. Assessments include class participation, homework, projects, compositions, and final exams. By the end of French III, students are expected to demonstrate an ACTFL Mid-Intermediate level of proficiency in all four skills.

### **French Level IV (Yearlong)**

**BN/WL/FRE4 – Pre-requisites:** ESL Level 3; successful completion of French III or instructor approval.

French IV, a year-long course, is a continuation of French III. Students communicate across the four skills of reading, writing, speaking, and listening in the interpersonal, interpretive, and presentational communicative modes within the cultural contexts of France and the other Francophone countries. This course is based on the ACTFL standards and requires nightly homework and assignments to be completed outside of class. Topics studied include vocabulary related to relationships, social issues, politics, government, history, and work, as well as the past subjunctive and conditional modes. This course also explores authentic literature, film, and the histories of French-speaking countries. Assessments include class participation, homework, projects, compositions, and final exams. By the end of French IV, students achieve an ACTFL Intermediate-High level of proficiency in all four skills.

### **French Culture (Yearlong)**

**BN/WL/FC/ - Pre-requisites:** ESL Level 3

Develop an understanding and appreciation of the French and Francophone people, history, and culture. Topics examined include geography, literature, politics, foods, religion, fashion, music, art, architecture, sports, and holidays. This course is offered in two parts, one during each semester. You may sign up for both semesters or take only one or the other. Semester 1 begins with an overview of the Francophone world and then delves into France's history from its beginnings to the Revolution. Semester 2 covers the Napoleonic years to modern France and ends with a more in-depth look into the Francophone world.

### **Spanish Level I (Yearlong)**

**BN/WL/SPA1 – Pre-requisite:** ESL Level 3; instructor approval.

Spanish I is a year-long general introduction to the Spanish language for beginning students and follows the rigor as well as the scope and sequence of a regular ACTFL-based high school language course. Students communicate across the four skills of reading, writing, speaking, and listening using basic Spanish

### **Spanish Level II (Yearlong)**

**BN/WL/SPA2 – Pre-requisites:** ESL Level 3; successful completion of Spanish I or instructor approval.

Spanish II, a year-long course, is a continuation of Spanish I. Students communicate across the four skills of reading, writing, speaking, and listening in the interpersonal, interpretive, and presentational communicative modes within the cultural context of Latin America or Spain. This course is based on the ACTFL standards and requires nightly homework and assignments to be completed outside of class. Topics to be studied include vocabulary related to health, hobbies, and travel and the past tenses. Assessments include class participation, homework, projects, compositions, and final exams. By the end of Spanish II, students are expected to demonstrate a Low-Intermediate level of proficiency in all four skills as characterized by the American Council of Foreign Language.

### **Spanish Level III (Yearlong)**

**BN/WL/SPA3 – Pre-requisites:** ESL Level 3; Spanish II or instructor approval.

Spanish III is designed for students who have successfully completed Spanish II or who can demonstrate that they have achieved the Intermediate-Low level of proficiency in all four skills (reading, writing, speaking, listening) according to the American Council on the Teaching of Foreign Languages (ACTFL). Students communicate about topics that are meaningful to them such as friendship, relationships, life goals, jobs, finances, politics, social issues, and entertainment, as well as popular culture and the fine arts. These topics, as well as Latin American and Spanish history and culture, are the contexts for analysis, comparison, conversation, interpretation, and much of the vocabulary at this level. Students use a textbook and online video to participate in listening and practice activities. They begin to read literary fragments and watch and listen to native speakers from recordings and films. Students also research and present about the arts and social issues. Any major gaps in knowledge of thematic vocabulary and grammar study are addressed. Students are assessed through exams, tests, projects, compositions, homework, and skits.

### **Spanish Level IV (Yearlong)**

**BN/WL/SPA4 – Pre-requisites:** ESL Level 3; Spanish III or instructor approval.

Spanish IV is designed for students who have successfully completed Spanish III or can demonstrate that they have achieved the Mid-Intermediate level of proficiency in all four skills (reading, writing, speaking, listening) according to the American Council on the Teaching of Foreign Languages (ACTFL). Students improve their communication skills through the study of the cultures of Latin America and Spain. They read and analyze literature and films, as well as explore the histories of the Spanish-speaking countries. Vocabulary is generated from the literature and films – both consisting of authentic resources - and the history textbook, while grammar study is generated according to and depending on student work.

Students are assessed through exams, tests, projects, compositions, homework, and participation.



**Spanish Culture (Yearlong)****BN/WL/SC/ - Pre-requisites:** ESL Level 3

Spanish Culture is a year-long course to develop an understanding of the Spanish language and culture. Topics examined include people, foods and music and politics. This course is offered in two parts, one for each semester.

**AP Spanish Language and Culture****BN/WL/SPLC/AP – Pre-requisites:** Recommendation of instructor and World Language department chair.

AP Spanish Language and Culture is equivalent to an intermediate level college course in Spanish. Students cultivate their understanding of Spanish language and culture by applying interpersonal, interpretive, and presentational modes of communication in real-life situations as they explore concepts related to family and communities, personal and public identities, beauty and aesthetics, science and technology, contemporary life, and global challenges.

**Advisory (Yearlong)****BN/ADV/23**

Students will be assigned an advisor by grade level. Students will meet with their advisor weekly.



