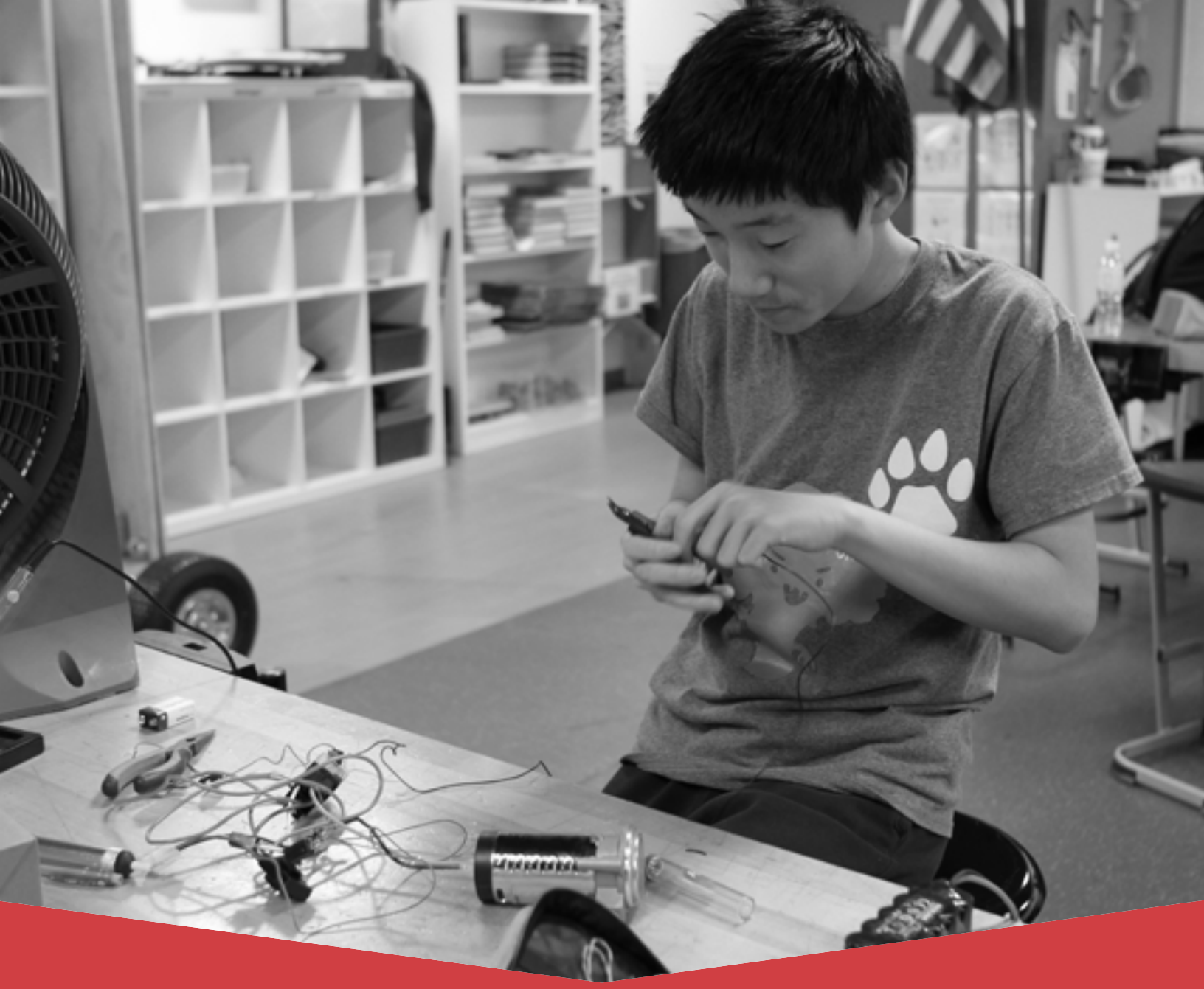


2022–23 SCHOOL YEAR

Course Guide

Education redefined.

BASIS INDEPENDENT™ SILICON VALLEY

Table of Contents

Note: *The Table of Contents is linked to the contents of this document. To navigate, click the page number of the section and to return to the Table of Contents.*

The BASIS Diploma

The BASIS Diploma prepares students to fully participate in the dynamic, exciting, and unpredictable world of the 21st century. Students who earn this diploma grow in our classrooms to love learning and the pursuit of deeper understanding. They experience the delight of mastering fields of complex knowledge and of developing the habits of disciplined, critical enquiry. Above all they have the best possible educational foundation to be independent and resourceful problem solvers and to face future challenges. It is their choice what career opportunities they pursue and intellectual decisions they make in the future. It is our job to fully prepare them to succeed in those choices.

The scope and sequence of the BASIS Diploma is determined by these practices.

We define opportunity for our students in **GLOBAL** terms. In the 21st century we can no longer conceive of opportunity for the next generation as confined to a city, a state, or even a nation. Hence, we commit to teaching our students to the highest global standards so that they can win admission to the best universities in the world and compete in a global professional marketplace.

Founded by two economists, from our earliest days our schools have been committed to the smart, network-wide use of student performance data. We hold ourselves **ACCOUNTABLE** to use the insights this data provides to sustain and improve learning outcomes for our students.

We teach our students to achieve **MASTERY** of the foundational academic disciplines and competencies, for it is that mastery which will empower their future lives and careers. In our classrooms they face extraordinary challenges, and they grow accustomed to the unwavering support of the faculty.

We have a course of study that is **CONNECTED** from the student's academic start in Preschool to its finish with Senior Projects. Our curriculum is carefully calibrated so that in every discipline and at every grade level, students are appropriately challenged and excited by their learning, and each year builds as a preparation for the challenges to come.

Our approach to the use of **TECHNOLOGY** in education is highly focused: we use technology to help us solve problems of scale, to help create the connective tissue that joins a network of schools into an integrated system with data-driven quality control and the sharing of best practices, and to ensure that curricular decisions and innovations are driven by our master teachers, not a top-down centralized bureaucracy.

In terms of the integration of technology in the classroom itself, we believe that technology is one of many tools available to teachers to engage and inspire students to take ownership of their learning experience. However, devices cannot replace the dynamic, **CO-CREATIVE** classroom interaction between teacher and student. Our belief is that technological competency with industry-standard hardware and software is a key skill necessary to thrive in our modern academic, professional and personal lives.

We create a learning culture in which diverse **PERSPECTIVES** are challenged and tested in an environment of informed thought and collegiality. Our students must be prepared to productively and decently navigate the uncertainty of the 21st century landscape with a profound humility. By engaging with a variety of global perspectives, our students are empowered to make their own decisions about how they will navigate their world. As a learning community, we do not hide from the conflict and struggle that ensues. We revel in it as a vital component in the maturation of our students and the evolution of their most deeply held convictions.

Overview

All BASIS Independent Schools use the BASIS Curriculum. This internationally-benchmarked and accelerated liberal arts curriculum was developed by BASIS.ed and is managed and continuously developed by BASIS Curriculum experts.

This Course Guide was developed to provide brief descriptions of courses offered for the upcoming school year. Elective courses are selected by students and are subject to meeting a minimum enrollment and teacher availability. Additional courses may be offered closer to the start of the school year, which include but are not limited to post-advanced placement (Post-AP), Math, and Senior Capstone courses. The course descriptions are organized by grade level or type (e.g. electives, world languages, etc). Students will receive a complete set of course syllabi after the first day of school. The syllabus will list required books, course topics, grading policies and necessary materials. Prior to the start of the school year, students and families will be given a list of textbooks for purchase.

All rising seniors, current students in Grade 11, will have the opportunity to meet with a college counselor to discuss the best courses to take in order to meet the desired graduation requirements. For questions about graduation requirements, students may contact their Dean, Director of Academic Programs, Director of Student Affairs, or College Counselor.

Course Listing by Grade

Transitional Kindergarten
Language and Literacy
Mandarin Discovery
Math Discovery
Movement Discovery
Music Discovery
Performing Arts Discovery
READ Discovery
STEM Discovery
Visual Arts Discovery
World Discovery

Kindergarten
Civics, History, and Science Foundation
Engineering and Technology Foundation
Language and Literacy
Mandarin Foundation
Math Foundation
Movement Foundation
Music Foundation
Performing Arts Foundation
Visual Arts Foundation

Grade 1
Connections
Engineering and Technology
Humanities
Mandarin
Math and Science
Music
Performing Arts
Physical Education
READ
Visual Arts

Grade 2
Connections
Engineering and Technology
Humanities
Mandarin
Math and Science
Music
Performing Arts
Physical Education
READ
Visual Arts

Grade 3
Connections
Engineering and Technology
Humanities
Mandarin
Math and Science
Music
Performing Arts
Physical Education
READ
Visual Arts

Grade 4
Engineering and Technology
English
Mandarin
Math
Music
Performing Arts
Physical Education
Science
Social Studies
Visual Arts

Grade 5
Art: Music/Choir, Visual Arts, and Drama
Classics
English 5
Latin I A
Math: Introduction to Pre-Algebra
PE & Sports 5
Physical Geography
Science 5

Grade 6
Biology 6
Chemistry 6
Elective
English 6
Latin I B
Math: Pre-Algebra or higher
PE & Sports 6
Physics 6
World History & Geography I

Grade 7
Biology 7
Chemistry 7
Elective
English 7
Health 7
Language Elective: Level I A (except Latin IIA)
Math: Algebra I/Geometry or higher
PE & Sports 7
Physics 7
World History & Geography II

Grade 8
Biology 8
Chemistry 8
Elective: AM and/or PM
English 8
Health 8
Language Elective: Level I B except (Latin IIB)
Logic
Math: Algebra II or higher
Physics 8
United States History

Grade 9
AP U.S. Government & Politics
Elective: AM and/or PM
Honors English Language
Honors English Literature
Honors Science: Biology, Chemistry, Physics
or AP Physics 1
Language Elective: Level II (except Latin III)
Math: Algebra II/Geometry or higher

Grade 10
AP English Language or Honors English 10
AP Science: Biology, Chemistry, Physics 1 or Physics 2 AP U.S. History
Elective: AM and/or PM
Honors Science: Biology, Chemistry, Physics
or AP Physics 1
Language Elective: Level III (except Latin IV)
Math: Pre-Calculus AB or higher

Grade 11
AP English Language or AP English Literature
AP Science: Biology, Chemistry, Physics 1 or Physics 2*
AP World History: Modern or AP European History
Elective: AM and/or PM
Honors Science: Biology, Chemistry
Physics
or AP Physics 1
Language Elective: Level IV except Latin V or AP course
Math: AP Calculus AB or higher

Grade 12
College Counseling
Course Selection:
Based on graduation requirements and diploma objectives

**Students may opt to take a second elective in lieu of an AP level science course*

Course Planning Worksheet:

	Courses:		Minimum AP Exam Requirements*:
English	☐ Honors English Language ☐ Honors English Literature ☐ AP English Language ☐ AP English Literature	*Students may substitute Honors English 10 for their first AP English course*	☐ AP Language and Composition exam or AP English Literature exam
History / Social Science	☐ Economics ☐ AP US Government & Politics ☐ AP European History/World History: Modern ☐ AP United States History		☐ One AP History exam
Math	☐ Algebra I/Geometry ☐ Algebra II/Geometry ☐ PreCalculus (AB, A, B) ☐ AP Calculus AB	*Students must take a math course every year of enrollment. Students may be awarded Algebra and Geometry credits for coursework completed prior to grade 9.*	☐ AP Calculus AB exam
Science	☐ Honors Biology ☐ Honors Chemistry ☐ Honors Physics OR AP Physics I	Select at least one: ☐ AP Biology ☐ AP Chemistry ☐ AP Physics 1[1] ☐ AP Physics 2 ☐ AP Physics C	☐ One AP Science exam
World Language	☐ World Language grade 9 ☐ World Language grade 10 ☐ World Language grade 11	*Students must take a language course every year of enrollment, and must obtain all three credits in the same language.*	Not Required
Electives[2]	☐ Fine Art _____ ☐ Physical Education (PE) ☐ General Elective _____	☐ General Elective(s) _____ _____ _____	
Standard Diploma Requirement	*Students must complete all course requirements listed in the Graduation Requirements document located in Parent Square. To graduate with honors or high honors, all course requirements, including taking at least 4 AP exams, must be completed prior to grade 12.*		☐ Must earn a score of 3 or better on at least one exam.
Honors Diploma	*To graduate with honors, students must earn a final course grade of B- or higher in each Capstone Course and fulfill the college counseling requirement.* ☐ Humanities Capstone/AP Research ☐ Math Capstone	☐ Additional Capstone ☐ Additional Capstone	☐ College Counseling
High Honors Diploma	*To graduate with High Honors, students must fulfill the requirements for an Honors Diploma, as well as one of the following:* ☐ Senior Project ☐ Senior Research Project (AP Research) *Project requirements for both include: off-campus work, external advisor, weekly blog, and community presentation.*		

* Students who enroll in an AP course and do not take the College Board AP exam are required to take an alternate-AP exam administered by the school.

1 AP Physics 1 cannot be counted as both your Honors and AP Science for graduation.

2 Students may fulfill the Physical Education (PE) elective credit with outside coursework by requesting the form from the Director of Academic Programs.

Graduation Planning Sheet:

GRADE	ENGLISH	HISTORY	SCIENCE	MATH	LANGUAGE	ELECTIVES[1]
9	Honors Language + Honors Literature	AP U.S. Government	Honors Science 1	Algebra II/ Geometry, Pre- Calculus, or Higher	World Language	Grade 9 Elective(s)
10	AP Language or Honors English 10	AP U.S. History	AP Science 1[2] + Honors Science 2	Pre-Calculus, AP Calculus AB, or Higher	World Language	Grade 10 Elective(s)
11	AP Literature or AP Language	AP European History or AP World History: Modern	AP Science 2[2] + Honors Science 3	AP Calculus AB or Higher	World Language (may be AP)	Grade 11 Elective(s)
12 College Counseling Required	Capstone Humanities or AP Research		Capstone Math	Capstone	Capstone	Grade 12 Elective (Optional)

1 Electives – Students must take at least one elective per year in grades 9-11, including a fine arts credit and a PE credit (PE can be completed off campus for credit). In addition, students must take Economics before graduating.

2 Students may choose to take two electives in lieu of a second AP level science course in grade 11.

BASIS Curriculum Schools Graduation Requirements

This outlines the requirements needed to graduate from our school. All BASIS Curriculum Schools follow a common set of academic requirements. Policies and requirements outlined are common to all schools, but routes to fulfilling requirements may vary by school.

For complete graduation requirements please see your student's cohort in ParentSquare. This information is located on the *Links* page.

Minimum Graduation Requirements Summary

ENGLISH: **4 credits**
- 2 Honors Level: Literature and Language
- 2 AP Level or 1 AP Level + Honors Level 10

SCIENCE: **4 credits**
- 3 Honors level: Biology, Chemistry, & Physics
- 1 AP level

WORLD LANGUAGE: **3 credits**
- Chinese, French, Spanish, Latin

MATHEMATICS: **5 credits**
- Including AP Calculus AB

HISTORY: **3.5 credits**
- 3 AP level: U.S. Government & Politics, European History/AP World History: Modern

ELECTIVES: **4 credits**
- Fine Art and PE
- Additional Requirements
- College Counseling Seminar

UC A-G Requirements

A: HISTORY: **2 Credits**
- 1 World
  - World History: Modern
- 1 US History
  - U.S. History

B: ENGLISH: **4 Credits**
- Honors Language
- Honors Literature
- AP Language or Honors English
- AP Literature, AP Language, or Capstone English

C: MATH: **3 Credits**

D: SCIENCE: **2 Credits (Lab Sciences)**

E: WORLD LANGUAGE: **2 Credits**

F: VISUAL AND PERFORMING ARTS: **1 Credit**

G: ELECTIVE: **1 Credit**

Transitional Kindergarten Required Courses

Language and Literacy: This course will focus on the basics of a child's development of personal and interpersonal communication skills in English, while also teaching them to actively listen and speak. Literacy will involve an introduction to storybook reading, storytelling, poems, rhymes, phonics, as well as recognition of letters and sight words, writing letters, and journaling. Students will progress from the ability to identify pictures in books to having solid reading comprehension. Literature will often be used to introduce themes that will be carried through all of the Discovery Blocks of Learning.

› Instructional Minutes per Week: 150

Mandarin Discovery: This course is designed to help our early learners learn Mandarin through lessons that are rich in oral language, interactive, and project-based, as well as communicative skills, organized by themes. Students authentically use a second language for real and immediate purposes every day.

› Instructional Minutes per Week: 60

Math Discovery: This course is easily brought to life for children through real-world examples, interactive play, manipulatives, and teacher-led exercises. Students are introduced to math concepts including: days, months, years, numbers, recognition of shapes, sorting and writing numbers, simple addition, subtraction, and division problem solving. In addition, the students will explore the basic concepts of math, including geometry, graphing, quantity and counting, money, weight, and measurement.

› Instructional Minutes per Week: 150

Movement Discovery: This course introduces students to movement activities that improve coordination, rhythm, and timing. Students will participate in songs and movements that will develop the imagination and help reinforce language concepts.

› Instructional Minutes per Week: 150

Music Discovery: This course is designed as an introduction to the elementary music curriculum. This is achieved through the discovery and appreciation of music as a school subject. During this class, students will engage in active-learning music games, rhythmic activities, listening, creating, and performing opportunities. It is the goal of this class to encourage a deeper appreciation of and natural curiosity about music.

› Instructional Minutes per Week: 60

Performing Arts Discovery: This course will engage students in dramatic storytelling as they express themselves using their bodies and voices. With a focus on literacy and movement, students will develop their imagination, creativity, and critical thinking skills through drama activities. In addition, students will have the opportunity to participate in public performances for friends and family.

› Instructional Minutes per Week: 60

READ Discovery: Through story time, students will explore their world, make connections, expand their knowledge, and expand their vocabulary.

› Instructional Minutes per Week: 150

STEM Discovery: This course is taught weekly by a Subject Expert Teacher who has a love and passion for all things STEM (Science, Technology, Engineering, and Math) and knows how to create age-appropriate, hands-on, STEM-based projects for early learners. In this weekly class, children are exposed to "Materials and Tools" and "Engineering Design" as fundamental learning areas for establishing their STEM awareness. Children investigate, innovate, build, and use natural and manmade materials to explore early science, technology, engineering, and math concepts.

› Instructional Minutes per Week: 60

Visual Art Discovery: This course is taught every week by the Visual Arts Subject Expert Teacher. Art is also used as a medium for learning throughout our entire program. Children will have the opportunity for hands-on exploration with various art materials, and a number of artistic concepts. Through art, children will be encouraged to express themselves, experiment, play, and make connections to early academic concepts.

› Instructional Minutes per Week: 60

World Discovery: This course exposes students to the early concepts of what are traditionally defined as social studies and science. At these young ages, children are just beginning to discover and understand who they are and the world in which they live. World Discovery begins with a child learning and sharing who they are in the world, their interests, and how and what they like to play with. It extends to understanding our family, our school, our community, city, state, and country and the larger world, holidays and important historical figures. Students will examine their world with an introduction to learning about their bodies, the environment, seasons, weather, the earth, planets, geography, geology, plants, and animals.

› Instructional Minutes per Week: 150

Kindergarten Required Courses

Civics, History, and Science Foundation: This course is a combination of two programs. Our History Program covers several time periods. It gives opportunity to discuss morals and ethics from great men and women of the past. Classroom discussions reflect on the problems they face these days that are similar to problems people have faced through the centuries. Children take active part in learning about past events, civilizations, and people.

Our Science Program is designed not just to understand the world around us, but to foster creativity in our students and enable them to carry out innovations in science and develop problem solving skills. They learn to apply the Scientific Method and draw conclusions on the basis of observation, investigation, and experiments. Our interactive science program fosters a positive attitude towards learning and understanding of inter-relationships of science and society.

› Instructional Minutes per Week: 150

Engineering and Technology Foundation: This course exposes students to engineering concepts through questions. They learn about the engineering design process and practice applying it to work through age-appropriate activities that facilitate individual and group learning. Students will develop problem solving, logic, and relationship skills through unique and meaningful projects. Solutions created by the students will be analyzed, reported, and communicated using a variety of media. This class is taught weekly by Subject Expert Teachers with a passion for all things STEM (Science, Technology, Engineering, and Math) who are committed to fostering STEM literacy for early learners.

› Instructional Minutes per Week: 120

Language and Literacy: This course will emphasize phonemic awareness, phonics, and handwriting. Students will begin the year developing these skills, and by the end of the year, they will be able to express complete thoughts while writing sentences using subjects and verbs, basic capitalization, and punctuation. We will explicitly focus on students' reading skills, as our goal for them is to read age-appropriate chapter books based on their reading level. We will also distinguish between several genres in literature. Throughout the year, lessons will engage students to work as a whole class, in clusters, or follow individual instruction.

› Instructional Minutes per Week: 300

Mandarin Foundation: This course encompasses content for those whom have no prior experience with the Chinese language as well as for heritage speakers. The emphasis in this class is to develop listening, speaking, reading, and writing skills using both the Pinyin phonetic system and simplified/traditional Chinese characters. The goal for this class is for students to increase their capacity for language while gaining an appreciation of other cultures.

› Instructional Minutes per Week: 90

Math Foundation: This course allows teachers to scaffold instruction of each concept and continue to review information introduced earlier. Topics include: skip counting by 1s, 2s, 5s, and 10s; compare and order numbers; identify ordinal position to tenth; identify a sorting rule; identify and extend patterns; solve routine and non-routine problems; master all basic addition facts and most of the basic subtraction facts; add two-digit numbers without regrouping; picture and name fractions; measure using inches, feet, and centimeters; compare volume, mass, and area; tell time to the half hour; count pennies, nickels, dimes, and quarters; identify and draw polygons; identify geometric solids; tally marks; and create, read, and write observations from real graphs, pictographs, and bar graphs.

› Instructional Minutes per Week: 250

Movement Foundation: This course focuses on the introduction of physical education skills and concepts. Throughout the course, students will learn a number of motor and social skills through physical activity.

› Instructional Minutes per Week: 150

Music Foundation: This course is an introduction to the elementary music curriculum. This is achieved through the discovery and appreciation of music as a school subject. During this class, students will engage in active-learning music games, rhythmic activities, listening, creating, and performing opportunities. It is the goal of this class to encourage a deeper appreciation of and natural curiosity about music.

› Instructional Minutes per Week: 30

Performing Arts Foundation: This course will encourage students to explore the magic of drama while building confidence and public speaking skills. With a focus on literacy and movement, this course will help to develop students' language and communication skills. Additionally, students will participate in our Second Step® program. Second Step® is a social emotional research-based program that helps students to build healthy relationships, control their emotions, and deal with social challenges to benefit their learning environment. Students will also have the opportunity to participate in public performances for friends and family.

› Instructional Minutes per Week: 30

Visual Arts Foundation: This course exposes students to a wide range of Visual Art techniques and provides students with an introduction to Art History. This course is taught thematically, exploring the answers to an overarching question each grading period. Students will develop and refine fine motor skills by working with a variety of materials while making cross-cultural connections through the arts. Visual Arts inspires students to explore and develop creative and innovative ideas, preparing them for a variety of future interests, as well as establishing an overall appreciation for the arts.

› Instructional Minutes per Week: 30

Grade 1 Required Courses

Connections: This course will ask students to use hands-on approaches to create unique solutions to scenario-based problems, which require the utilization of knowledge and skills taught in their other classes. The course is designed to increase inter-personal skills, build critical thinking skills, and allow students to showcase and refine their creative minds.

› Instructional Minutes per Week: 85

Engineering and Technology: This course encourages students to be hands-on problem solvers. They will learn about the various types of engineering, ideologies, and concepts using the Engineering Design Process (EDP). They will use the EDP to work through age-appropriate activities that facilitate individual and group learning. The use of the EDP facilitates teamwork and fosters design principles. Students will be encouraged to brainstorm new ideas and work together to apply science and math concepts, create and test prototypes, analyze data, and aim for creativity and practicality in their solutions.

› Instructional Minutes per Week: 85

Humanities: This course will teach students to develop the foundational tools for reading and writing, which include reading comprehension strategies, vocabulary enrichment, phonics, and grammar skills. In addition, they will begin to compare historical events, connect those events with their geographic locations, and compare aspects of various forms of government to start to gain a more complete perspective of the world in which we live.

› Instructional Minutes per Week: 425

Mandarin: This course is designed to help our primary learners learn Mandarin through lessons that are rich in oral language, interactive, and project-based, as well as communicative skills, organized by themes. Students authentically use a second language for real and immediate purposes every day.

In addition to recognizing basic Chinese characters and building a solid foundation of correct character writing, Mandarin shared and guided reading is reinforced on a daily basis, and differentiated small groups are designed intentionally to meet personalized goals.

› Instructional Minutes per Week: 200

Math and Science: This course is designed to teach math and science in an integrated block. Students will discuss relevant connections between these two subjects. Students will also practice skills, explore topics, and demonstrate knowledge with the use of manipulatives and hands-on approaches when possible. Students will learn and apply math topics in the areas of number sense and operations, measurement, patterns, and data analysis. Students will explore essential science topics, including science as a process, life science, physical science, and earth and space science.

› Instructional Minutes per Week: 425

Music: This course is designed to provide essential experiences in the five conceptual areas of music: rhythm, melody, harmony, form, and expression. Students will learn each elemental area through a wide range of musical processes: moving, speaking/singing, listening, playing, reading/notating, and creating/improvising. Students will be given the opportunity throughout the school year to present material and concepts they have learned in class. The goals of our elementary music education program are to develop good musicianship, provide each child with a solid foundation for further music study and appreciation, and ultimately to enrich the lives of children – aesthetically, socially, academically, and personally.

› Instructional Minutes per Week: 85

Performing Arts: This course will encourage students to explore the magic of drama through acting out the structure of a story, creating group stage pictures, and designing characters through mask work. Additionally, students will participate in our Second Step® program. Second Step® is a social emotional research based program that helps students to build healthy relationships, control their emotions, and deal with social challenges to benefit their learning environment. Students will also have the opportunity to participate in public performances for friends and family.

› Instructional Minutes per Week: 85

Physical Education: This course focuses on specific skills including locomotor skills, stability skills, and manipulative skills. The focus throughout the course will be on performance and attitude. Health topics are covered in class-based discussions.

› Instructional Minutes per Week: 100

READ: This course will teach students to develop their social and emotional skills through direct instruction, collaboration, and practical application of social emotional skills. Additionally, this course will incorporate a selection of texts of various lengths, genres, and subjects, designed to help students relate to the experiences of others, building empathy, perspective, and inclusiveness.

› Instructional Minutes per Week: 100

Visual Arts: This course exposes students to a wide range of Visual Art techniques and provides students with an introduction to Art History. This course will be taught thematically, exploring the answers to an overarching question each grading period. Students will develop and refine fine motor skills by working with a variety of materials while making cross-cultural connections through the arts. Visual Arts inspires students to explore and develop creative and innovative ideas, preparing them for a variety of future interests, as well as establishing an overall appreciation for the arts.

› Instructional Minutes per Week: 85

Grade 2 Required Courses

Connections: This course will ask students to use hands-on approaches to create unique solutions to scenario-based problems, which require the utilization of knowledge and skills taught in their other classes. The course is designed to increase inter-personal skills, build critical thinking skills, and allow students to showcase and refine their creative minds.

› Instructional Minutes per Week: 85

Engineering and Technology: This course will introduce students to various types of engineering, ideologies and concepts using the Engineering Design Process (EDP). They will use the EDP to work through age-appropriate activities that facilitate individual and group learning. The engineering projects will also encourage students to integrate math and science technologies into the engineering problem solving processes. Students will learn how engineers and technicians use math, science, and technology to solve real-world problems with tangible benefits. This will facilitate a more in-depth understanding and the application of concepts from other classes. Students will engage in hands-on, real-world projects to gain an appreciation for social and political needs and technologies. Project-based learning engages learners of all ages—and fosters STEM literacy.

› Instructional Minutes per Week: 85

Humanities: This course will teach students how to study concepts and events in history, geography, and government to see how they are related. Students will learn to compare historical events, present an opinion, see and discuss different points of view, and complete map work. They will continue to develop problem solving and critical thinking skills throughout the course. All the while, they will develop the essential tools for reading and writing needed to succeed at a high level in the English Language Arts.

› Instructional Minutes per Week: 425

Mandarin: This course is designed to help our primary learners learn Mandarin through lessons that are rich in oral language, interactive, and project-based, as well as communicative skills, organized by themes. Students authentically use a second language for real and immediate purposes every day.

In addition to recognizing basic Chinese characters and building a solid foundation of correct character writing, Mandarin shared and guided reading is reinforced on a daily basis, and differentiated small groups are designed intentionally to meet personalized goals.

› Instructional Minutes per Week: 200

Math and Science: This course is designed to teach math and science as an integrated block where relevant connections between these two subjects will be stressed. Essential math topics include: number sense and operations, measurement, patterns and functions, and data analysis. Essential science topics include: science as a process, life science, physical science, and earth and space science.

› Instructional Minutes per Week: 425

Music: This course is designed to provide essential experiences in the five conceptual areas of music: rhythm, melody, harmony, form, and expression. Students will learn each elemental area through a wide range of musical processes: moving, speaking/singing, listening, playing, reading/notating, and creating/improvising. Students will be given the opportunity throughout the school year to present material and concepts they have learned in class. The goals of our elementary music education program are to develop good musicianship, provide each child with a solid foundation for further music study and appreciation, and ultimately to enrich the lives of children – aesthetically, socially, academically, and personally.

› Instructional Minutes per Week: 85

Performing Arts: This course will encourage students to build upon their drama knowledge through storytelling activities, teamwork exercises, and character development explorations. Additionally, students will participate in our Second Step® program. Second Step® is a social emotional research-based program that helps students to build healthy relationships, control their emotions, and deal with social challenges to benefit their learning environment. Students will also have the opportunity to participate in public performances for friends and family.

› Instructional Minutes per Week: 85

Physical Education: This course looks to build up students' mind, body, and character through physical activity. Students will learn the importance of good sportsmanship and respect for other participants as they learn mechanics for a variety of sports. Students will also learn about healthy habits that will help them to maintain a strong body and sharp mind.

› Instructional Minutes per Week: 85

READ: This course will teach students to develop their social and emotional skills through direct instruction, collaboration, and practical application of social emotional skills. Additionally, this course will incorporate a selection of texts of various lengths, genres, and subjects, designed to help students relate to the experiences of others, building empathy, perspective, and inclusiveness.

› Instructional Minutes per Week: 100

Visual Arts: This course exposes students to a wide range of Visual Art techniques and provides students with an introduction to Art History. This course will be taught thematically, exploring the answers to an overarching question each grading period. Students will develop and refine fine motor skills by working with a variety of materials while making cross-cultural connections through the arts. Visual Arts inspires students to explore and develop creative and innovative ideas, preparing them for a variety of future interests, as well as establishing an overall appreciation for the arts.

› Instructional Minutes per Week: 85

Grade 3 Required Courses

Connections: This course will ask students to use hands-on approaches to create unique solutions to scenario-based problems and make connections across the curriculum, which requires the utilization of knowledge and skills taught in their other classes. The course is designed to increase interpersonal skills, build critical thinking skills, and allow students to showcase and refine their creative minds. Students engage in lessons in which they learn about fossils and artifacts, extend their understanding of Greek and Roman mythology, create their own gods and goddesses, create a replica of an ancient structure, and develop their own original culture.

› Instructional Minutes per Week: 85

Engineering and Technology: This course will expose students to and continue to build on the Engineering Design Process (EDP) they have learned in earlier grades. The design process applies to problems big and small - global, local and personal. They will use the EDP to work through age appropriate activities that facilitate individual and group learning. The engineering projects will also encourage students to integrate math and science technologies into the engineering problem solving processes. Students will engage in hands-on, real-world projects to gain an appreciation for social and political needs and technologies. Project-based learning engages learners of all ages—and fosters STEM literacy.

› Instructional Minutes per Week: 85

Humanities: This course strengthens student's critical thinking skills through reading fiction and nonfiction texts, and participating in the Touchstones discussion project. Through novel studies, they deepen their understanding of critical comprehension and vocabulary skills, making them more effective readers. Students improve writing and spelling skills through annotating, crafting reading responses, and multiple drafts of essay writing. They also study concepts and events in the history, geography, and government of ancient civilizations such as ancient Greece and Rome as well as various periods in US history. Students compare historical events, present opinions, and complete map work, thereby gaining a more complete perspective of the world in which we live.

› Instructional Minutes per Week: 425

Mandarin: This course is designed to help our primary learners learn Mandarin through lessons that are rich in oral language, interactive, and project-based, as well as communicative skills, organized by themes. Students authentically use a second language for real and immediate purposes every day.

This course focuses on real-world bilingual projects which deepen in complexity and leverage real-world connections. Teachers continue to use a range of instructional approaches, including guided and independent practice, small-group writing instruction, and technology integration.

› Instructional Minutes per Week: 200

Math and Science: This course is designed to teach math and science as an integrated block where relevant connections between these two subjects will be stressed. Studies suggest that integration of courses can increase topic retention and comprehension and improve critical thinking skills. Students will learn, apply, and analyze math topics in the areas of number sense and operations, measurement, patterns and functions, and data analysis. Students will use science inquiry to explore essential science topics including: science as a process, life science, physical science, and earth and space science. This course will be taught with the use of manipulatives and hands-on approaches as much as possible.

› Instructional Minutes per Week: 425

Music: This course is designed to provide essential experiences in the five conceptual areas of music: rhythm, melody, harmony, form, and expression. Students will learn each elemental area through a wide range of musical processes: moving, speaking/singing, listening, playing, reading/notating, and creating/improvising. Students are given the opportunity throughout the school year to present material and concepts they have learned in class. The goals of our elementary music education program are to develop good musicianship, provide each child with a solid foundation for further music study and appreciation, and ultimately to enrich the lives of children – aesthetically, socially, academically, and personally.

› Instructional Minutes per Week: 85

Performing Arts: This course will encourage students to build upon their performance arts vocabulary as they create original stories through playwriting and pantomime. In addition, students will engage in learning about the theatrical techniques of Kabuki theatre and will act out a play in this style. Additionally, students will participate in our Second Step® program. Second Step® is a social emotional research based program that helps students to build healthy relationships, control their emotions, and deal with social challenges to benefit their learning environment. As a part of this class, students will actively participate in exciting in-class drama projects and public performances for friends and family.

› Instructional Minutes per Week: 85

Physical Education: This course looks to build up students' mind, body, and character through physical activity. Students will learn the importance of good sportsmanship and respect for other participants as they learn mechanics for a variety of sports. Students will also learn about healthy habits that will help them to maintain a strong body and sharp mind.

› Instructional Minutes per Week: 200

READ: This course will teach students to develop their social and emotional skills through direct instruction, collaboration, and practical application of social emotional skills. Additionally, this course will incorporate a selection of texts of various lengths, genres, and subjects, designed to help students relate to the experiences of others, building empathy, perspective, and inclusiveness.

› Instructional Minutes per Week: 100

Visual Arts: This course exposes students to a wide range of Visual Art techniques and provides students with an introduction to Art History. This course is taught thematically, exploring the answers to an overarching question each grading period. Students will develop and refine fine motor skills by working with a variety of materials while making cross-cultural connections through the arts. Visual Arts inspires students to explore and develop creative and innovative ideas, preparing them for a variety of future interests, as well as establishing an overall appreciation for the arts.

› Instructional Minutes per Week: 85

Grade 4 Required Courses

Engineering and Technology: This course will expose students to, and continue to build on, the Engineering Design Process (EDP) they have learned in earlier grades. The design process applies to problems big and small - global, local and personal. They will use the EDP to work through age appropriate activities that facilitate individual and group learning. The engineering projects will also encourage students to integrate math and science technologies into the engineering problem solving processes. Students will apply all that they have learned towards a real-world challenge and participate in developing and presenting a solution for it. This can be a cross-curricular activity within the school or outside of the school. Project-based learning engages learners of all ages—and fosters STEM literacy.

› Instructional Minutes per Week: 100

English: This course will focus on four major components: reading, writing, conventions, and scholarship. In reading, students will be able to recognize basic genre differences and demonstrate comprehension of a variety of texts by identifying the main idea. Students will make predictions, discuss elements of plot, and make inferences from a variety of genres. In writing, students will also be able to produce short fictional and nonfictional written works, demonstrate mastery of basic paragraph organization, and respond to text-dependent questions by providing specific textual evidence. In conventions, students will be able to recognize and correctly use capitalization, basic punctuation, and basic grammar. In scholarship, students will be able to build vocabulary skills using textual context, dictionaries and thesauri, and perform simple research. Students will also be able to take notes and use graphic organizers.

› Instructional Minutes per Week: 250

Mandarin: This course is designed to help our primary learners learn Mandarin through lessons that are rich in oral language, interactive, and project-based, as well as communicative skills, organized by themes. Students authentically use a second language for real and immediate purposes every day.

This course focuses on real-world bilingual projects which deepen in complexity and leverage real-world connections. Teachers continue to use a range of instructional approaches, including guided and independent practice, small-group writing instruction, and technology integration.

› Instructional Minutes per Week: 150

Math: Students will gain knowledge of foundational mathematics by focusing on five key areas: operational thinking, number sense, measurement and data, geometry, and mathematical practices. Students will develop their operational thinking as they practice writing and interpreting numerical expressions and analyzing patterns and relationships. Students will develop their number sense by performing operations with multi-digit whole numbers and decimals, by using equivalent fractions to add and subtract fractions, and by multiplying and dividing fractions. Students will develop measurement and data skills such as converting like measurement units and representing and interpreting data. Students will be introduced to geometry concepts such as graphing points on a coordinate plane. Finally, students will develop strong mathematical practices and learn to reason abstractly and quantitatively.

› Instructional Minutes per Week: 250

Music: This course is designed to provide essential experiences in the five conceptual areas of music: rhythm, melody, harmony, form, and expression. Students will learn each elemental area through a wide range of musical processes: moving, speaking/singing, listening, playing, reading/notating, and creating/improvising. Students are given the opportunity throughout the school year to present material and concepts they have learned in class. The goals of our elementary music education program are to develop good musicianship, provide each child with a solid foundation for further music study and appreciation, and ultimately to enrich the lives of children – aesthetically, socially, academically, and personally.

› Instructional Minutes per Week: 100

Performing Arts: This course will encourage students to build upon their performance arts vocabulary as they engage in scene work, improvisation, and pantomime. Students will expand their knowledge of theatrical styles as they explore melodrama, commedia dell'arte, and shadow puppetry. Additionally, students will participate in our Second Step® program. Second Step® is a social emotional research based program that helps students to build healthy relationships, control their emotions, and deal with social challenges to benefit their learning environment. As a part of this class, students will actively participate in exciting in-class drama projects and public performances for friends and family.

› Instructional Minutes per Week: 100

Physical Education: This course looks to build up students' mind, body, and character through physical activity. Students will learn the importance of good sportsmanship and respect for other participants as they learn mechanics for a variety of sports. Students will also learn about healthy habits that will help them to maintain a strong body and sharp mind.

› Instructional Minutes per Week: 200

Science: This course is designed to teach essential science topics, as well as organizational and study skills. Science topics include ecology, biology, chemistry, and physics along with the scientific process. This course is taught with the use of hands-on approaches, investigations, and inquiry as much as possible.

› Instructional Minutes per Week: 250

Social Studies: This course is designed to introduce students to social studies and history as discrete subjects within the humanities. Students will begin developing important skills needed to understand and think critically about the past and present. These skills include analyzing primary sources, close-reading non-fiction material, connecting historical events through chronology and cause-and-effect relationships, and evidence-based writing. Students will practice and apply these skills while exploring historical topics such as state and local history and the history of the 20th century. Students will also survey different ways of investigating the human world through archaeology, geography, and government.

› Instructional Minutes per Week: 250

Visual Arts: This course exposes students to a wide range of Visual Art techniques and provides students with an introduction to Art History. This course is taught thematically, exploring the answers to an overarching question each grading period. Students will develop and refine fine motor skills by working with a variety of materials while making cross-cultural connections through the arts. Visual Arts inspires students to explore and develop creative and innovative ideas, preparing them for a variety of future interests, as well as establishing an overall appreciation for the arts.

› Instructional Minutes per Week: 100

Grade 5 Required Courses

Below are the course descriptions for all required courses except Mathematics. See Mathematics Course Progression for more information about the different math levels.

Classics: This course prepares students for their future history courses at BASIS Independent. Students will gain a thorough understanding of ancient societies and cultures. Topics of study include social structure, economics, settlement patterns, politics, religion and cultural aspects, emphasizing Mesopotamian, Egyptian, Greek, and Roman civilizations. Students will become familiar with primary and secondary sources, current events, map skills, chronological order, key vocabulary, note-taking, research techniques, and oral presentations.

› Instructional Minutes per Week: 150

Drama 5: In this course, students will develop their skills as young artists, tackling theatrical challenges as actors, directors, designers, and dramaturgs. Working as an ensemble from day one, enrolled students will explore a broad overview of acting, voice, movement, theatre terminology, script comprehension, and design elements in the dramatic arts with a social emotional learning and growth mindset based curriculum to foster deeper and meaningful connections amongst peers. Students will perform in two short evening showcases featuring the studied works, as well as attend three live theatre performances outside of school (one per trimester) and write critiques on the performances viewed.

› Instructional Minutes per Week: 100

English 5: This course introduces students to the basic elements of reading, writing, grammar, and literature. It consists of five major components: conventions, reading, writing, scholarship, and reasoning. Reading fluency and comprehension will be practiced, and writing skills will be developed through the six fundamental traits of effective writing: ideas, organization, voice, word choice, fluency, and mechanics/grammar. Students will learn the basic steps required for writing a research paper as well as various styles of fiction and non-fiction writing.

› Instructional Minutes per Week: 300

Latin I A: This course introduces students to the language—grammar, vocabulary, and syntax—of classical Latin. Students will develop the ability to conjugate verbs in the past and present tenses, as well as begin working on translating passages appropriate to their level.

› Instructional Minutes per Week: 100

Music/Choir 5: This course develops musical skills by singing and/or playing instruments, studying music history and theory, and practicing music literacy. With the aid of musical examples and in-class activities, students will be able to identify and evaluate melody, harmony, rhythm, dynamics, musical texture, and musical style. Students will practice basic music notation and theory concepts as they relate to the chosen repertoire and through aural and sight-singing exercises. In addition, students are required to attend live classical concerts in order to reinforce the material presented in class. As a performance group, the students will perform concerts throughout the year. Selected repertoire for study and for performance will represent a variety of styles, genres, and levels of difficulty.

› Instructional Minutes per Week: 100

PE & Sports 5: This course focuses on teaching specific skills through sports. The course also includes health topics, which will be covered in class discussions. Students will learn rules for various sports and will work on the concepts of teamwork, fair play and sportsmanship. Students will also learn the basics of exercise including warming up, stretching and cooling down. The focus of the course will be on attitude and performance.

› Instructional Minutes per Week: 150

Physical Geography: This course develops an understanding of planet Earth, both the physical world and how it affects the people and cultures on it. It combines classical geography - the study of landforms, inhabitants, and maps - with Earth science concepts. Students will learn states and countries around the world, and be introduced to cultural geography topics including languages, religions, trade, populations, and natural resources. The Earth science portion of this course divides the Earth into "spheres" which are each a critical part of the Earth system. Students will learn characteristics and processes related to the Hydrosphere (water on Earth), Atmosphere (weather and climate), and Geosphere (geology). All areas will be taught to enhance the student's knowledge of basic scientific principles and serve as a foundation to future studies in Chemistry, Biology, and Physics.

› Instructional Minutes per Week: 250

Science 5: This course is designed to prepare students for the intensive middle school science curriculum at BASIS Independent. Students will study basic principles in Biology, Space Science, Chemistry, and Physics. This course teaches scientific skills and principles with a focus on observation and the scientific method. Skills practiced throughout the course include: critical thinking, data collection, data analysis, collaboration, and communication. Organization, note-taking skills, and good study habits are emphasized and necessary to be successful in this course.

› Instructional Minutes per Week: 250

Visual Arts 5: This course focuses on production, criticism, aesthetics, art history and multi-cultural study. Students will create original artwork through the use of various art techniques and the elements and principles of design.

› Instructional Minutes per Week: 100

Grade 6 Required Courses

Below are the course descriptions for all required courses except Mathematics and electives. See Mathematics Course Progression or Electives for more information.

Biology 6: This course is the study of living things and starts with the most basic unit of life, the cell. The organization of cells, tissues, organs, and organ systems in complex organisms will be studied in the context of the human body. Biology I students will discover the anatomy and physiology of the organ systems that allow for movement, coordination, circulation, digestion, excretion, immunity, and reproduction. This knowledge is used to understand the importance of homeostasis in living things and what can happen when disease interferes with the functions of human organ systems. Throughout the course, students will develop note-taking skills and the ability to analyze complex systems.

› Instructional Minutes per Week: 150

Chemistry 6: This course introduces the principles of atomic structure, elements, compounds, molar quantities, and the periodic table. In addition, students are introduced to high school level concepts such as stoichiometry.

› Instructional Minutes per Week: 150

English 6: This course places an emphasis on language conventions. Students can expect to spend their English classes divided between grammar, punctuation, vocabulary, thinking skills, and instruction in reading and writing. Students will learn how to engage in and make a habit of active and frequent reading by learning how to take effective reading notes and discuss texts in class. Literature will spark and develop imaginative thought in traditionally academic fields. Instruction in writing will focus on perfecting the student's ability to write effectively at the sentence and paragraph level. Students will build on the foundational research skills developed in Grade 5.

› Instructional Minutes per Week: 250

Latin I B: This course builds upon the skills learned in grade 5. Students will improve their vocabulary and understanding of Latin grammar and syntax.

› Instructional Minutes per Week: 150

PE & Sports 6: This course focuses on teaching specific skills through sports. The course also includes health topics, which will be covered in class discussions. Students will learn rules for various sports and will work on the concepts of teamwork, fair play and sportsmanship. Students will also learn the basics of exercise including warming up, stretching and cooling down. The focus of the course will be on attitude and performance.

› Instructional Minutes per Week: 150

Physics 6: This course introduces the fundamentals of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics will include measurement, forces, motion, electricity and magnetism, and gravitation. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

› Instructional Minutes per Week: 150

World History & Geography I: This course introduces a holistic view of World history from the beginnings of human societies to roughly 1750 C.E. This course will offer balanced global coverage of Africa, the Americas, Asia, Europe, and Oceania. We will focus on five themes throughout the course as unifying threads to put what is particular about each period or society into a larger framework.

› Instructional Minutes per Week: 250

Grade 7 Required Courses

Below are the course descriptions for all required courses except Mathematics, Electives and World Languages. See Mathematics Course Progression, Electives or World Languages for more information.

Biology 7: This course will take a more in depth look at the study of living things. Students will expand on their understanding of the fundamental unit of life, the cell, by learning about structures and processes of prokaryotic and eukaryotic cells. Students will discover the characteristics of living things and how homeostasis is maintained throughout all the kingdoms of life. The basics of evolution will be introduced then discussed as we investigate the structures and functions of bacteria, protists, fungi, plants and animals (including a revisit to organ systems). By threading the evolution discussion throughout the year and introducing ecology, students will understand the underlying concepts leading to the vast biological diversity that exists on Earth. Note-taking and scientific investigation skills will be emphasized throughout the year.

› Instructional Minutes per Week: 150

Chemistry 7: This course will delve deeper into principles of atomic structure, elements, compounds, molar quantities, and the periodic table, preparing students for the next level of Chemistry studied in Grade 8. Students are also introduced to high school level concepts such as gas laws, stoichiometry, and types of reactions.

› Instructional Minutes per Week: 150

English 7: This course continues to improve students' abilities in five major components: Conventions, reading, Writing, Scholarship, and reasoning. Students will learn how to analyze and utilize a variety of literary devices, examine and use advanced vocabulary, vary and manipulate their sentence structure, and edit and improve their own writing. Reading skills, including being able to understand and interpret what they read, as well as appreciate and imitate a variety of literary styles, will also be further developed during grade 7. Students will be expected to demonstrate their ever-growing repertoire of research skills.

› Instructional Minutes per Week: 250

Health 7: This course provides students with knowledge, positive attitudes, and skills towards health throughout their lifetime. The curriculum focuses on the importance of physical, mental, social, and emotional health. It motivates students to exercise, receive adequate amounts of sleep, control what they eat, reduce risk of injury, prevent disease, and be an overall healthier person. It also covers topics such as anatomy, physiology, nutrition, CPR, and biomechanics. This course creates opportunities and experiences that challenge and engage students to assess and value their health, while personalizing and evaluating their learning.

› Instructional Minutes per Week: 50

PE & Sports 7: This course will cover a variety of sports that are meant to develop all areas of coordination and teamwork. We will be focusing on behavior and how the students interact with each other, more so than how well they perform at any given sport. We expect a high level of effort as well as good sportsmanship and throughout the year. We will also talk about safety and fair play, as well as some nutrition and bullying information.

› Instructional Minutes per Week: 100

Physics 7: This course expands upon the fundamentals of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics will include measurement, forces, motion, electricity and magnetism, and gravitation. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

› Instructional Minutes per Week: 100

World History & Geography II: This course prepares students to take their first Advanced Placement exam, and builds on the skills learned in their grades 6 and 7 history classes. It focuses on developing students' abilities to think conceptually about world history from approximately 8000 BCE to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance—focusing on the environment, cultures, state-building, economic systems, and social structures—provide areas of historical inquiry for investigation throughout the course. AP World History encompasses the history of the five major geographical regions of the globe: Africa, the Americas, Asia, Europe, and Oceania, with special focus on historical developments and processes that cross multiple regions.

› Instructional Minutes per Week: 250

Grade 8 Required Courses

Below are the course descriptions for all required courses except Mathematics, Electives and World Languages. See Mathematics Course Progression, Electives or World Languages for more information.

Biology 8: This course is the study of living things at the high school level in this course by building on the basics learned in previous courses. Students will further their comprehension of cells by learning more in depth about cellular processes and the maintenance of homeostasis. Students will continue their study of plant processes by learning the biochemistry of photosynthesis. Genetics, the structure of DNA, and replication of DNA will be introduced in preparation for Honors and AP Biology. Evolutionary and ecological concepts will be reinforced especially in the context of genetics. Students will continue to hone their scientific investigation skills throughout the year.

› Instructional Minutes per Week: 150

Chemistry 8: This course includes more advanced principles of atomic structure, elements, compounds, molar quantities, and the periodic table. Students are also introduced to high school level concepts such as gas laws, stoichiometry, and types of reactions. The goal of this course is to prepare students for, Honors Chemistry, class that they will take the following year.

› Instructional Minutes per Week: 150

English 8: This course builds on students' previous knowledge by asking students to apply previously taught skills in the context of literary analysis. We do this by emphasizing close-reading skills, an assortment of writing formats and techniques, and the acquisition of literary and rhetorical vocabulary terms while also reviewing writing mechanics—the basic rules of English grammar and syntax. Students analyze and write about a variety of genres—short fiction, novels, autobiographical memoirs, essays, poetry, drama, and film—while building their critical reading and analytic writing skills.

› Instructional Minutes per Week: 250

Health 8: Health 8 will focus on two major aspects of health: physical and mental. This class will support students as they learn about healthy activities and practices that can help them live a meaningful healthy life. The course has three main points of emphasis concerning human health: understanding the importance of proper nutrition and physical activity for our bodies and minds, studying psychological and mental practices that help with mood, morale, and emotional well-being, and then how to put this knowledge into practice in their daily lives.

Health 8 will consist of 3 units: Importance of Health, Active Lifestyle, and Real World Application. Students are assessed on class participation, quizzes, and their fitness log.

› Instructional Minutes per Week: 50

Logic: This course will offer students a foundation in several important life skills including analysis and construction of valid arguments, and the analysis and classification of fallacies. Through the curriculum, students will identify and correct weak arguments and use critical thinking skills for effective argumentation. They will do this in two ways: Students will be able to discern and write valid arguments against opinions and statements by decomposing complex language, evaluating argument forms, and then refuting weak arguments with strong, logical rebuttals. Students will be able apply these skills to persuasive writing and debate, interviewing, and problemsolving strategies in the future.

› Instructional Minutes per Week: 100

Physics 8: This course will continue to build on the knowledge acquired in grades 6 and 7. Topics will be expanded to a larger number of real-world situations and two dimensional problems will be introduced for the first time. Using the concepts learned, students will develop the ability to pose a scientific argument and present scientific evidence to support a claim. Topics will include kinematics, forces, energy, momentum, and electricity and magnetism. At the end of this course, students will have the understanding of theoretical physics necessary to prepare them for high school physics.

› Instructional Minutes per Week: 150

United States History: This course is a study of United States history from pre-colonial times through September 11, 2001, focusing on the political, social, cultural, economic, environmental, and military aspects of U.S. history in a broader global setting. This course is designed to prepare students for Upper School Advanced Placement courses and exams, specifically the AP United States History course and exam. A large emphasis will be placed on developing necessary fact based knowledge, in addition to honing the writing skills necessary for success in U.S. history.

› Instructional Minutes per Week: 250

Grade 9 Required Courses

Below are course descriptions for required courses except Mathematics, Electives and World Languages. For the sciences, students select one course with the goal of taking the AP-level in grade 10.

AP U.S. Government and Politics: This course will give students an analytical perspective on government and politics in the United States, and it includes both the study of general concepts used to interpret U.S. government and politics and the analysis of specific examples. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. government and politics. Students will become acquainted with the variety of theoretical perspectives and explanations for various behaviors and outcomes.

› Instructional Minutes per Week: 250

Honors English Language: This course is specifically designed to provide students with the content knowledge and skills to succeed in AP English Language. The course is based on the analysis, research, and writing of non-fiction texts, with a focus on rhetorical modes. Students will also review and improve their understanding of syntax and grammar, and study vocabulary.

› Instructional Minutes per Week: 250

Honors English Literature: This course provides students with a general overview of world literature and intellectual movements throughout world history, and prepares students for the kind of analytical, interpretive work that will be required of them in the AP English Literature and Composition course. Students read, discuss, analyze, and write about many of the great works dealing with the human experience, the growth of individual and global cultures, and significant changes and events in world history. Students will write several essays analyzing an individual text. Students will also become comfortable with the language of literary analysis and increase their cache of literary terms. We also focus on productive analysis and group discussion.

› Instructional Minutes per Week: 250

Students choose ONE of the following science courses:

Honors Biology (Pre-AP): This course uses the core themes of the scientific method and evolution to unify a broad range of biology lecture and laboratory topics, ranging from the structure and function of cells to the universal genetic code. Students study how organisms interact with their environment and exchange matter and energy, and how DNA serves as the universal molecule of inheritance and the source of variation that drives evolution. This course serves as a broad foundation for AP Biology, which builds on these same topics in greater detail and depth, with more of a focus on inquiry-based science.

› Instructional Minutes per Week: 250

Honors Chemistry (Pre-AP): This course includes topics such as chemical formulas and reactions, stoichiometry, atomic and molecular structure, relationships within the periodic table, bonding and states of matter and gas laws. Students are engaged in hands-on laboratory work, integrated throughout the course, which accounts for twenty-five percent of the course. This course will focus on fostering deeper conceptual understanding under the 9 units outlined by the College Board, and all of the problem solving, laboratory investigations and activities are founded in the practice of chemistry, which is broken down into Science Practices. Although students will still be required to complete mathematical manipulations, the focus throughout will remain on the underlying conceptual ideas. Therefore, when performing mathematical calculations students should be able to relate their solutions to the concepts behind the math.

› Instructional Minutes per Week: 250

Honors Physics (Pre-AP): This course advances the understanding of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics include experimental design, motion, forces, energy, electrostatics, and magnetism. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

› Instructional Minutes per Week: 250

AP Physics 1: This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

› Instructional Minutes per Week: 250

Grade 10 Required Courses

Below are course descriptions for required courses except Mathematics, Electives and World Languages. For English, students select one course. For the sciences, students select two courses (one AP level).

AP U.S. History: This course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence, and interpreting and synthesizing historical narrative) and an understanding of content learning objectives organized around seven themes, such as identity, peopling, and America in the world. In line with college and university U.S. history survey courses' increased focus on early and recent American history and decreased emphasis on other areas, the AP U.S. History course expands on the history of the Americas from 1491 to 1607 and from 1980 to the present. Selected topics across nine different periods of U.S. history will be taught in depth.

› Instructional Minutes per Week: 250

Students select ONE English course:

AP English Language: This course is designed to provide students with the equivalent of a year's worth of college-level classes in composition and rhetoric, and one of the goals of this class is for students to pass the AP exam in the spring. AP English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students will analyze and interpret samples of good writing, identify and explain an author's use of rhetorical strategies and techniques. They will apply effective strategies and techniques in their own writing, create and sustain arguments based on readings, research, and/or personal experience, write for a variety of purposes, produce expository, analytical, and argumentative compositions that introduce a complex central idea and develop it with appropriate evidence drawn from primary and/or secondary sources, cogent explanations, and clear transitions. They will additionally demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings, demonstrate understanding of the conventions of citing primary and secondary sources.

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors English Literature and Honors English Language (Grade 9)

Honors English 10: This course continues to advance students' abilities in the five major components: Conventions, Reading, Writing, Scholarship, and Reasoning if students wish to defer AP English for their grade 11 year. This course prepares students for the kind of analytical, interpretive work that will be required of them in the AP English Literature and Composition or AP English Language and Composition course. Students read, discuss, analyze, and write about many great works of fiction and nonfiction. Students will write essays analyzing an individual text by practicing the literary and rhetorical analysis introduced in their Honors Literature and Honors Language courses.

› Instructional Minutes per Week: 250

Students select ONE of the following science courses:

Honors Biology (Pre-AP): This course uses the core themes of the scientific method and evolution to unify a broad range of biology lecture and laboratory topics, ranging from the structure and function of cells to the universal genetic code. Students study how organisms interact with their environment and exchange matter and energy, and how DNA serves as the universal molecule of inheritance and the source of variation that drives evolution. This course serves as a broad foundation for AP Biology, which builds on these same topics in greater detail and depth, with more of a focus on inquiry-based science.

› Instructional Minutes per Week: 250

Honors Chemistry (Pre-AP): This course includes topics such as chemical formulas and reactions, stoichiometry, atomic and molecular structure, relationships within the periodic table, bonding and states of matter and gas laws. Students are engaged in hands-on laboratory work, integrated throughout the course, which accounts for twenty-five percent of the course. This course will focus on fostering deeper conceptual understanding under the 9 units outlined by the College Board, and all of the problem solving, laboratory investigations and activities are founded in the practice of chemistry, which is broken down into Science Practices. Although students will still be required to complete mathematical manipulations, the focus throughout will remain on the underlying conceptual ideas. Therefore, when performing mathematical calculations students should be able to relate their solutions tothe concepts behind the math.

› Instructional Minutes per Week: 250

Honors Physics (Pre-AP): This course advances the understanding of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics include experimental design, motion, forces, energy, electrostatics, and magnetism. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

› Instructional Minutes per Week: 250

AP Physics 1: This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion), momentum, oscillations, work, energy, and power. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills.

› Instructional Minutes per Week: 250

Students must choose ONE of the following AP-level science courses after completing the honors-level or AP Physics 1 prerequisite:

AP Biology: In this course, students are expected to use knowledge obtained in Honors Biology and apply it to novel situations, including student-guided labs. Concepts covered include scientific process, biochemistry, cells, microbiology, heredity, evolution, plant and animal physiology and function, classification, and ecology. Frequent discussions enable students to better see the unifying relationships among all types of organisms. Four unifying themes are emphasized throughout the year:

1. The process of evolution drives the diversity and unity of life
2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis
3. Living systems store, retrieve, transmit and respond to information essential to life processes
4. Biological systems interact, and these systems and their interactions possess complex properties

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors Biology

AP Chemistry: This course covers includes topics such as chemical kinetics, thermodynamics, chemical equilibria and its applications. Students are engaged in hands-on laboratory work, integrated throughout the course, which accounts for 25 percent of the course. This course will focus on fostering deeper conceptual understanding under the 9 units outlined by the College Board, and all of the problem solving, laboratory investigations and activities are founded in the practice of chemistry, which is broken down into Science Practices. Although students will still be required to complete mathematical manipulations, the focus throughout will remain on the underlying conceptual ideas. Therefore, when performing mathematical calculations students should be able to relate their solutions to the concepts behind the math.

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors Chemistry

AP Physics 1: This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students must be enrolled in Pre-Calculus or higher if they take this course.

› Instructional Minutes per Week: 250

AP Physics 2: This course is an algebra-based, introductory college-level physics course that explores topics such as:

- Fluid statics and dynamics
- Thermodynamics with kinetic theory
- PV diagrams and ideal gas processes
- Electrostatics
- Electrical circuits with capacitors
- Magnetic fields
- Electromagnetism
- Physical and geometric optics
- Quantum, atomic, and nuclear physics

Through inquiry-based learning, students will develop scientific critical-thinking and reasoning skills.

› Instructional Minutes per Week: 250
› **Prerequisite:** AP Physics 1 or Honors Physics

AP Physics C: This course is divided into two sections: Mechanics and Electricity and Magnetism. Mechanics is a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course. Electricity and Magnetism is also a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course.

› Instructional Minutes per Week: 250
› **Prerequisite:** AP Calculus AB and Honors Physics or AP Physics 1. AP Physics 2 is not required, but strongly recommended.

Grade 11 Required Courses

Below are course descriptions for required courses except Mathematics, Electives and World Languages. For English, students select one course. For the sciences, students select two courses (one AP level).

If the required AP courses are completed, students are eligible to participate in post-AP courses. Post-AP courses may run concurrently the first two trimesters with Senior Capstone courses.

Students will have the choice between AP World History: Modern or AP European History.

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

› Instructional Minutes per Week: 250

AP European History: This course focuses on developing students' abilities to think conceptually about European history from approximately 1450 to the present and apply historical thinking skills as they learn about the past. Five themes of equal importance: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions, states and other institutions of power; and individual/society provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places. The course also allows teachers flexibility to teach certain topics of their choice in depth.

› Instructional Minutes per Week: 250

Students select ONE English course:

AP English Language: This course is designed to provide students with the equivalent of a year's worth of college-level classes in composition and rhetoric, and one of the goals of this class is for students to pass the AP exam in the spring. AP Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Students will analyze and interpret samples of good writing, identify and explain an author's use of rhetorical strategies and techniques. They will apply effective strategies and techniques in their own writing, create and sustain arguments based on readings, research, and/or personal experience, write for a variety of purposes, produce expository, analytical, and argumentative compositions that introduce a complex central idea and develop it with appropriate evidence drawn from primary and/or secondary sources, cogent explanations, and clear transitions. They will additionally demonstrate understanding and mastery of standard written English as well as stylistic maturity in their own writings, demonstrate understanding of the conventions of citing primary and secondary sources.

› Instructional Minutes per Week: 250

AP English Literature: This course is designed to engage students in the careful reading and critical analysis of imaginative literature by reading, annotating, re-reading, and thinking. Some of the course novels are long and dense; students will need to plan accordingly. Course readings will help students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students should consider a work's structure, style, and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone.

› Instructional Minutes per Week: 250

Students select ONE of the following science courses:

Honors Biology (Pre-AP): This course uses the core themes of the scientific method and evolution to unify a broad range of biology lecture and laboratory topics, ranging from the structure and function of cells to the universal genetic code. Students study how organisms interact with their environment and exchange matter and energy, and how DNA serves as the universal molecule of inheritance and the source of variation that drives evolution. This course serves as a broad foundation for AP Biology, which builds on these same topics in greater detail and depth, with more of a focus on inquiry-based science.

› Instructional Minutes per Week: 250

Honors Chemistry (Pre-AP): This course includes topics such as chemical formulas and reactions, stoichiometry, atomic and molecular structure, relationships within the periodic table, bonding and states of matter and gas laws. Students are engaged in hands-on laboratory work, integrated throughout the course, which accounts for twenty-five percent of the course. This course will focus on fostering deeper conceptual understanding under the 9 units outlined by the College Board, and all of the problem solving, laboratory investigations and activities are founded in the practice of chemistry, which is broken down into Science Practices. Although students will still be required to complete mathematical manipulations, the focus throughout will remain on the underlying conceptual ideas. Therefore, when performing mathematical calculations students should be able to relate their solutions to the concepts behind the math.

› Instructional Minutes per Week: 250

Honors Physics (Pre-AP): This course advances the understanding of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics include experimental design, motion, forces, energy, electrostatics, and magnetism. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

› Instructional Minutes per Week: 250

AP Physics 1: This course covers is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students must be enrolled in Pre-Calculus or higher if they take this course.

› Instructional Minutes per Week: 250

Students must choose ONE of the following AP-level science courses or take two electives during grade 11:

AP Biology: In this course, students are expected to use knowledge obtained in Honors Biology and apply it to novel situations, including student-guided labs. Concepts covered include scientific process, biochemistry, cells, microbiology, heredity, evolution, plant and animal physiology and function, classification, and ecology. Frequent discussions enable students to better see the unifying relationships among all types of organisms. Four unifying themes are emphasized throughout the year:

1. The process of evolution drives the diversity and unity of life
2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis
3. Living systems store, retrieve, transmit and respond to information essential to life processes
4. Biological systems interact, and these systems and their interactions possess complex properties

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors Biology

AP Chemistry: This course covers includes topics such as chemical kinetics, thermodynamics, chemical equilibria and its applications. Students are engaged in hands-on laboratory work, integrated throughout the course, which accounts for 25 percent of the course. This course will focus on fostering deeper conceptual understanding under the 9 units outlined by the College Board, and all of the problem solving, laboratory investigations and activities are founded in the practice of chemistry, which is broken down into Science Practices. Although students will still be required to complete mathematical manipulations, the focus throughout will remain on the underlying conceptual ideas. Therefore, when performing mathematical calculations students should be able to relate their solutions to the concepts behind the math.

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors Chemistry

AP Physics 1: This course covers is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Students must be enrolled in Pre-Calculus or higher if they take this course.

› Instructional Minutes per Week: 250

AP Physics 2: This course is an algebra-based, introductory college-level physics course that explores topics such as:

- Fluid statics and dynamics
- Thermodynamics with kinetic theory
- PV diagrams and ideal gas processes
- Electrostatics
- Electrical circuits with capacitors
- Magnetic fields
- Electromagnetism
- Physical and geometric optics
- Quantum, atomic, and nuclear physics.

Through inquiry-based learning, students will develop scientific critical-thinking and reasoning skills.

› Instructional Minutes per Week: 250
› **Prerequisite:** Honors Physics or AP Physics 1

AP Physics C: This course is divided into two sections: Mechanics and Electricity and Magnetism. Mechanics is a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course. Electricity and Magnetism is also a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course.

› Instructional Minutes per Week: 250
› **Prerequisite:** AP Calculus AB and Honors Physics or AP Physics 1. AP Physics 2 is not required, but strongly recommended

Grade 12 Required Courses

Prior to course selection for grade 12, rising seniors are encouraged to schedule an appointment with the college counselor or Director of Student Affairs to determine the best courses to meet the desired graduation requirements.

College Counseling: This course will help students to research colleges, work on college and scholarship applications, manage and organize college-related correspondence, write essays, and conduct mock interviews to develop interview skills. In addition, each student will meet individually with his/her college counselor during class time. The atmosphere of the class is much like a focused study hall where students are expected to work in a dedicated and respectful manner to achieve their college admissions goals. This course is also designed to help students apply to colleges, work with College Admission representatives through visits at BASIS Independent and plan Senior Research Projects.

› Instructional Minutes per Week: 250 (Trimester 1 and 2 only)

Senior Capstone Courses: Capstone Courses transition students from student-centered learning to independent learning by delving deeply into advance material, roughly equivalent to upper-level college courses. Capstone courses are two trimesters in length and limited to students pursuing the BASIS Honors and High Honors Diploma. Students wishing to graduate with Honors or High Honors must select a minimum of four Capstone courses, one from Humanities (or AP Research), one from Math, and two additional Capstone courses of the students' choice.

• **Capstone** – Instructional Minutes per Week: 250 (Trimester 1 and 2 only)

Capstones

The following courses offer an opportunity for students to go beyond the AP Curriculum. The specific thematic foci are determined by the instructor's area of specialty. These courses are selected by students and are subject to meeting a minimum enrollment and teacher availability.

Students who have met AP course requirements are eligible to participate in post-AP courses, year-long courses that may run concurrently with Senior Capstone courses for two trimesters. Senior Capstone courses are limited to students in grade 12 who are pursuing the BASIS Honors and High Honors Diploma.

Humanities – Instructional Minutes per Week: 250

AP Research (Second year of AP Capstone): This course is an extension of AP Seminar and the second half of AP Capstone; students who pass AP Capstone and four additional AP courses in their high school careers will qualify for the AP Diploma, awarded by the College Board. As in AP Seminar, students will investigate issues of their choice, develop research methodologies, review and evaluate sources, articulate original arguments in paper and presentation formats, and define themselves as interdisciplinary scholars. Whereas AP Seminar is primarily skill-focused and ends with performance tasks and an AP exam to measure students' mastery of skills, AP Research is product-oriented and ends with a mini-dissertation based on data and research students have collected independently. Leading universities have been intrigued and inspired by AP Capstone students who have been able to produce original scholarship and contribute to a relevant and contentious field of inquiry. Students define themselves in AP Capstone not by the content or skill sets they have acquired, as in many other AP courses, but by the outcomes and articulation of their own research.

› **Prerequisite:** AP Seminar

Colonial and Post-Colonial Studies: Colonial Studies continue the narrative begun by World History, European History, and United States History from the point of view of emerging nations and peoples who were absorbed into 19th-century empires. In this course, students will apply their knowledge of regional and international histories, as well as their own cultural heritage, to literature that explores linguistic, religious, social, and political suppression, to events that highlight the adaptations or resistance movements of colonized peoples to their colonial masters, and to policies that structured and restructured the status quo in colonial and post-colonial states. Students will interrogate how identities have been formed, reformed, and transformed throughout the colonial process and discover the impacts of colonial institutions on individual and group psychologies.

› **Prerequisite:** AP English Lang or Lit

Contemporary Renditions of the Classics: The trajectory of Contemporary Renditions of the Classics will allow students to build a strong foundation in Classical literature and scholarship in their first trimester. Before delving into contemporary literature, students will read both ancient Greco-Roman literature and scholarly articles from Classical journals. Following this first trimester, students will begin working with contemporary texts that provide new renditions of Classical mythology. Contemporary authors have adapted ancient Greek and Roman mythologies in a variety of ways. This class will take special interest in the issue of representation—mainly, how do authors implement issues of race, gender, and sexuality into their adaptations, and what is the significance of this implementation within the context of the Western canon that Classical scholarship tends to uphold? By the end of this course, students will be able conduct critical literary analysis of ancient, contemporary, and scholarly texts. They will use their developed skills in critical analysis and critical writing in tandem with their scholarly research to write final papers that answer the larger questions of our course, including those regarding the nature of translation, the role of mythology in culture, and the mode by which mythology forms and reforms contemporary social structures.

› **Prerequisite:** AP English Lang or Lit

Corporate Finance: Corporate Finance examines how companies choose to invest in new projects, how to finance those projects, and what share of profits to return to investors. If you intend to found your own start-up, invest in a corporation, or manage resources at a firm, you should take this class! We will apply what we learn to companies in multiple global sectors, including Disney, Baidu, and Tata. You will select a real company to use as a case study throughout the course, assessing its investment decisions relative to the market and valuing it accordingly.

› **Prerequisite:** AP Economics

Crime and Punishment: Criminal Justice and the Constitution: The purpose of this course is to introduce students to an important means of social control in American society; the criminal justice system. This course picks up where AP United States Government and Politics left off with a brief introduction to rights of the criminally accused under the Constitution. Because the approach of this course is sociological, the focus will be on criminal justice as a complex social-legal system that has enormous ramifications for those associated with it, whether they are crime victims, those accused of crime, those convicted of crime, or those employed in criminal justice agencies. We will examine the main goals, organizational structures, and occupational roles associated with the police, the criminal courts, and corrections. We will also learn about how accused and convicted persons move through the criminal justice process from arrest to conviction to punishment. Moreover, as we look at the workings of the criminal process, we will address whether criminal justice agencies are effective in achieving their goals and whether they do so in a fair and unbiased manner. We will look at criminal justice reform, and effects on the criminal justice system from social movements such as Black Lives Matter. In addition, students will learn and research prior legal decisions about the criminal procedure, criminal punishment and the Constitution.

› **Prerequisite:** AP US Gov

Existentialism and the Absurd: The power of the Second World War in the popular imagination is undeniable: we continue to wonder how so many millions became deluded by authoritarian power, whether nuclear weapons were justifiable, and how Soviet authoritarianism and Western democracy were briefly reconciled. Even further, this was the war that tore Europe from her foundations—within two decades, the French and British empires collapsed and dozens of fledgling states emerged amid the drama of the Cold War. Writers, artists, and filmmakers sought to reproduce the anxieties of the mid-twentieth century by making new demands of their audiences: they, and not the artists, should construct the meaning of the works. The notion that authorship was no longer relevant, that traditional authorities had been overturned, and that the individual must produce his or her own meaning became the hallmarks of the post-modern movement. This capstone explores cultural works produced in the midst or aftermath of extreme governmental repression (and popular uprisings whether visible or underground) in the 20th century. Beginning with the Second World War, we will explore how authoritarian leaders sought to homogenize and mobilize their populations to expand the state's power; we will likewise examine how non-conformists were either persecuted by or overcame state control. We will discuss this political struggle both against the backdrop of global war and the emergence of new nations and how various actors steered their states in the midst of political crisis.

› **Prerequisite:** AP English Lang or Lit

Literature and Science: This course considers the interconnections of the sciences and humanities regarding philosophy and inspiration, technological and artistic advances, and networks within politics, business, and culture. Beginning in the early modern period and moving to the contemporary, the course will consider how science and literature have coevolved through an investigation of scientific inquiry and experimentation, philosophy and science fiction, and the history of technology. Students will read and consider professional documents in the fields of science and technology studies, ethnography, and business and marketing. Together we will examine the vast discourse networks encompassing science, art, sociology, media, business, and politics corresponding to the scientific and artistic advances that have shaped our modern world.

› **Prerequisite:** AP Literature

Race in America: More than a generation after the Civil Rights Movement, we continue to be tongue-tied when it comes to race and, as a result, are constrained from fully understanding our society and fellow citizens. Our society now confronts problems of racial division that in some ways are far more complex and ambiguous than those of straightforward segregation or bigotry, persistent as those tendencies may still be in the present day. This course will provide more effective language with which to think and talk about the problem of racial inequality and injustice in today's society. This course will discuss the very concept of "Race," as well as its relation to contemporary issues like voting, housing, crime, etc.

› **Prerequisite:** AP US History

Rhetoric and Communications: Rhetoric and Communications is an opportunity for students to focus on practical communications and persuasive discourse while acquiring a sophisticated understanding of the rhetorical ramifications of the English language. The course introduces students to a range of practical communications situations, including public speaking, branding and advertising, political communications, and documentary filmmaking. Over the course of the year, students learn to make effective short presentations and connect with audiences, while also learning how to see the world through a rhetorical lens. Overall, the primary emphasis of the course is training students to be effective communicators by providing them with an opportunity to apply an advanced understanding of rhetorical and communications theory to a broad range of rhetorical occasions.

› **Prerequisite:** AP English Lang or Lit

Rise Up for Social Justice: This course is designed to introduce students to current social justice issues and assist them in discovering their ability to create positive change in their own world. We will analyze contemporary social movements related to race, ethnicity, gender, sexual orientation, and class, while exploring how these concepts have influenced human understanding, relationships, and behavior for centuries. We will tap into how individuals operate within community contexts created through interactions and relationships structured by sociability, belonging, and responsibility. We will attempt to parse the various components affected by these themes and how they interfere with each other, while applying the concepts of justice and injustice in the local and global spectrum. As we delve deeper into the ongoing social justice issues and meet their leaders, students will develop their own actionable plan on how to influence transformative change in their communities through hands-on multi-media research projects on topics, such as micro-aggression, race, ethnicity, gender, and social class.

› **Prerequisite:** AP U.S. History

Roman Drama: This course will explore the content, context, and performance of Roman drama. Students will read one Roman comedy by Terence and one Roman tragedy by Seneca (both in Latin). Terentian comedy is beautifully nuanced; the plays deal with everyday human problems like filial responsibility, freedom to make personal choices, and of course, love. Senecan tragedy also focuses on the family, but its themes are grander and darker—the characters are drawn from Greek myth, and are often concerned with revenge and betrayal. In addition to Latin readings, students will learn how and where the plays were staged in ancient Rome. We will also consider other Roman plays in translation, in order to provide better context for our Latin readings.

› **Prerequisite:** AP Latin or Latin V

Theatre Politik: Dramaturgical Analyses of Socio-Political Issues on the Contemporary World Stage: In this course, students will explore the socio-political catalysts that ignited contemporary political theatre by utilizing structural dramaturgical methodology. We will inquire whether Political Theatre has achieved its intended outcome as an agent of change, by delving into a wide-range of theatre practices around the world. We will engage in socially meaningful and politically charged discussions, while analyzing the texts and plays of radical theatre practitioners, such as Brecht and Epic Theatre, Artaud and the Theatre of Cruelty, Baraka's Revolutionary Theatre, Living Theatre of Beck and Malina, Churchill and Feminist Theatre, Malpede and Environmentalist Theatre, and Boal's Theatre of the Oppressed.

› **Prerequisite:** AP English Lang or Lit

Mathematics – Instructional Minutes per Week: 250

AP Calculus BC: This course covers topics in the first part of calculus, i.e. the basic concepts of differential and integral calculus, will be thoroughly reviewed and reinforced. Students will also master the topics required in the BC Calculus AP test. These will include different methods for solving simple differential equations (analytic, graphical, and iterative) and the basic theory of the convergence of the infinite series. Students will work on improving their test taking skills throughout the whole school year. Grade 12 students may take this course in place of one of their required Capstone courses, but are committing to taking this course for the full year. Other capstone courses end after T2, this course runs through the end of the school year.

› **Prerequisite:** AP Calculus AB

Differential Equations: This course covers both analytic and numerical methods of solving differential equations, the language in which the fundamental laws of nature, engineering, and economics are written. Student will learn to solve both ordinary and partial differential equations using a variety of analytic methods. This includes deriving and solving some of the major equations in physics, engineering, chemistry, ecology, and economics. Methods of approximation for differential equations using Riemann sums, Euler & Runge-Kutta methods, Taylor series, Finite-element analysis and more will also be covered.

› **Prerequisite:** AP Calculus BC

Econometrics: Over the course of the first part of the class, students will learn about both econometrics research methods and the economics of various public policy issues. The topics of data collection, experimental design, OLS regression, propensity score matching, instrumental variables, fixed effect models, differences-in-differences models, lagged dependent variable models, and special topics in econometrics will be applied to data sets and causal relationships in the fields of secondary and post-secondary educational outcomes, environmental regulation, charitable interventions in developing countries, health care and insurance, and tax policy.

In the second part of the class, students will take the skills and knowledge they have gained and apply them to investigating a causal relationship in a policy area of their choice. Students will have freedom to direct this project as they see fit, creating their own hypothesis and collecting their own data. Time will be spent discussing possible hypotheses and various policy topics discussed in class. They will be expected to present their findings in a formal presentation and write up their results in a research paper; students will read and study published economics papers to properly understand the expectations and requirements for publishing research findings in the field of economics.

› **Prerequisite:** AP Calculus AB and Economics

Game Theory and Behavioral Economics: This is a two part course that starts with game theory, where students will examine optimal and rational decision making in strategic situations. The second half, behavioral economics, explores why individuals do not behave as rationally as introductory economics traditionally assumes. In both halves of the course, students will be given opportunities to conduct research and run experiments to test theories in the real world.

› **Prerequisite:** AP Calculus AB and Economics

Linear Algebra: This course is an incredibly powerful branch of mathematics that lays the groundwork for more advanced study in mathematics and has numerous applications in physics, computer science, statistics, and economics. A departure from the traditional problem solving approach taken in most high school algebra and calculus classes, this course will challenge students to create and understand abstract mathematical structures and ultimately prove statements about those structures. This course is equivalent to an introductory college course in linear algebra and will cover matrices, vector spaces, linear transformations, orthogonality, and eigenvalues. While the focus of the course is theoretical, we will also discuss several applications in the physical sciences.

› **Prerequisite:** AP Calculus AB

Multivariable Calculus: This year-long course is designed to expand a student's practical and theoretical knowledge of Calculus to handle multiple variables. The following topics will be covered during the course: Vector products, Fields of vector and scalar functions with applications, Gradient of scalar fields, Divergence of vector fields, Curl of vector fields, Line integrals, Surface integrals, and Divergence Theorem of Gauss with applications. This class will also cover traditional Linear Algebra topics necessary to understand the theory behind vector calculus as well as differentiation and integration of functions of several variables.

› **Prerequisite:** AP Calculus BC

Sciences – Instructional Minutes per Week: 250

Advanced Java Topics and Machine Learning: This course of study helps students advance their Java programming skills by building on the skills learned in AP Computer Science. In conjunction with the practice of basic Java programming techniques, students will implement and experiment with fundamental algorithms, data structures (lists, sets, maps, stacks, queues, and trees) abstract data types and algorithms for sorting and searching. Students will also be introduced to Machine Learning concepts within Artificial Intelligence and will learn the terminology, syntax, and steps required to create a Machine Learning solution in Java using engaging hands-on activities.

› **Prerequisite:** AP Computer Science

AP Physics C: This course is divided into two sections: Mechanics and Electricity and Magnetism. Mechanics is a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as kinematics; Newton's laws of motion; work, energy and power; systems of particles and linear momentum; circular motion and rotation; and oscillations and gravitation. Introductory differential and integral calculus is used throughout the course. Electricity and Magnetism is also a calculus-based, college-level physics course, especially appropriate for students planning to specialize or major in physical science or engineering. The course explores topics such as electrostatics; conductors, capacitors, and dielectrics; electric circuits; magnetic fields; and electromagnetism. Introductory differential and integral calculus is used throughout the course. Grade 12 students may take this course in place of one of their required Capstone courses, but are committing to taking this course for the full year. Other capstone courses end after T2, this course runs through the end of the school year.

› **Prerequisite:** AP Calculus AB, Honors Physics, and AP Physics 2

Biology of Cancer: This course is designed to give students an in depth understanding of a disease that is a major global human health problem. The past few decades have yielded valuable information on how normal cells become transformed into tumor cells and yet there is no cure for cancer. This course is designed for students to conceptualize cancer research as a single coherent body of science instead of the many discoveries that delve on individual topics. In this course, students will listen to lectures, and read from peer reviewed scientific journal articles to gain current knowledge of the genetic, molecular and cellular basis of cancer. Another important outcome is directed towards teaching the elaborate, specialized vocabulary of the cancer research literature and for students to become cognizant of the various techniques employed in cancer research. Topics include the DNA structure and stability, genetic basis of cancer, DNA repair mechanisms, the cell cycle control, tumor suppressors and oncogenes, viruses that cause cancer, mechanisms of metastasis, tumor immunology and immunotherapy, drug treatment and development. The course will also briefly touch on ethical issues that crop up during treatment of patients. Activities explored in this course will foster active collaborative learning, and help students develop problem-solving strategies using critical thinking skills.

› **Prerequisite:** AP Biology

Industrial Chemistry: This course provides an overview of the worldwide chemical industry. Students will learn about the sources, manufacture, uses, and economics of major inorganic and organic chemicals, such as those involved in the production of petroleum, plastics, fibers, paints, pesticides, pharmaceuticals, detergents, semiconductors, and metals. In this course, students will listen to lectures, carry out student-led projects, and conduct laboratory experiments, including the making of soap, paint, aspirin, and nylon. In addition, field trips to Bay Area manufacturers and analytical laboratories will expose students to real life applications of our local chemical industry.

› **Prerequisite:** AP Chemistry or having recieved an 'A' in Honors Chemistry

Inorganic Chemistry: Inorganic chemistry is the study of bonding and symmetry as they relate to simple inorganic salts as well as complex ions/compounds. This course covers group theory and crystal lattices, molecular orbitals, nomenclature of complex ions, and descriptive chemistry of certain elements. Inorganic chemistry provides insight in how bonding relates to magnetic and redox properties of inorganic compounds. This course builds on the previous chemistry block of Honors and AP chemistry. Topics such as molecular orbital theory, which is only touched upon in AP Chemistry are explored in depth here. Symmetry elements and point groups of everyday objects, as well as inorganic compounds are studied in great detail, and symmetry and bonding in complex ions are used to explain macroscopically observed and measured properties of these ions such as color and magnetism.

› **Prerequisite:** AP Chemistry or having received an 'A' in Honors Chemistry

Neuroscience: This course begins with a history of the field, and covers basic biology of individual neurons, how they communicate chemically, and how these building blocks are arranged to form a nervous system. Students learn basic human neuroanatomy and then using case studies, original research papers, and labs, investigate more complex functions of the nervous system including sleep, development, learning and memory, and diseases and disorders.

› **Prerequisite:** AP Biology, AP Psychology, or Biotechnology

Topics in Modern Physics: This course will explore topics in physics often postponed to advanced college courses. These topics will range across classical and modern physics alike and will be introduced non-chronologically. Their selection will be made based on importance to science and relevance to the student's intellectual growth. Students will have the option to investigate further on their own and to write a small research paper.

Topics may cover special relativity, quantum physics, aspects of cosmology and astronomy, semiconductor physics, introduction to particle physics, Lagrange approach to classical mechanics, introduction to non-linear mechanics and chaos, workshop on light, star-gazing and astrophotography, analysis of experimental error and scientific communication, introduction to curved space-time, and exposure to various mathematical methods commonly used in theoretical physics.

› **Prerequisite:** AP Physics 2 and AP Calculus AB

Vector Mechanics: A primary objective in this course of mechanics is to help develop a student's ability first to analyze problems in a simple and logical manner, and then to apply basic principles to their solutions. Vector algebra will be introduced with application to statics of a rigid body in 3 dimensions. The concept of vector differentiation will be introduced before discussing kinematics and kinetics of rigid bodies. This approach will lead to concise derivations of the fundamental principles in mechanics.

› **Prerequisite:** AP Physics C and AP Calculus AB

World Languages – Instructional Minutes per Week: 250

Chinese Literature and Culture: This course focuses on improving students' abilities to use advanced Chinese language forms to read and discuss a wide range of subjects and issues. This includes: literature, culture, philosophy, law, economics, history, geography, and movie criticism. The course also develops students' ability to read articles that contain both formal and informal as well as modern and classic Chinese usages. Students learn to identify and explain the classical Chinese allusions used in the articles and compare them to their modern counterparts. Students use the Chinese language in their fields of study and are directed to give presentation and do translation projects in their academic field.

› **Prerequisite:** AP Chinese or Mandarin IV

French Philosophy and Translation: The course will start by translating simple sentences and gradually build up to long passages. Students will translate passages from well-known French writers including philosophers like René Descartes, Simone de Beauvoir, Albert Camus, and more. Once students have gained a level of mastery in translation the course will effectively analyze different philosophical texts. Each student will present research projects on different French writers and what messages they were conveying.

› **Prerequisite:** AP French or French IV

Spanish Literature and Culture: This course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students continue to develop proficiencies across the full range of the modes of communication (interpersonal, presentational, and interpretive), honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, and literary criticism).

› **Prerequisite:** AP Spanish or Spanish IV

Roman Drama: This course will explore the content, context, and performance of Roman drama. Students will read one Roman comedy by Terence and one Roman tragedy by Seneca (both in Latin). Terentian comedy is beautifully nuanced; the plays deal with everyday human problems like filial responsibility, freedom to make personal choices, and of course, love. Senecan tragedy also focuses on the family, but its themes are grander and darker—the characters are drawn from Greek myth, and are often concerned with revenge and betrayal. In addition to Latin readings, students will learn how and where the plays were staged in ancient Rome. We will also consider other Roman plays in translation, in order to provide better context for our Latin readings.

› **Prerequisite:** AP Latin or Latin V

Mathematics: Course Progression

In grades 5–8 all BASIS Curriculum students study algebra and geometry topics in courses from Introduction to Pre-Algebra and Pre-Algebra to Algebra II. Typically, during grades 9–11, students move from Pre-Calculus through AP Calculus, mastering applications of functions, differentiation, integration, and topics that extend past those required for the AP Calculus exams. Following Calculus, students take a variety of rigorous Post-AP courses that are equivalent to university-level math classes.

› Instructional Minutes per Week: 250

Introduction to Pre-Algebra: This course is the default math class for students in grade 5. It provides students with knowledge of general mathematics by practicing addition, subtraction, multiplication, and division of whole numbers, fractions, mixed numbers, decimals and negative numbers; as well as introducing them to Pre-Algebra concepts. Geometric principles of area, perimeter, volume, and surface area are also practiced. Percentages and decimals are reinforced in word problems.

Pre-Algebra: This course includes concepts typical of this type of course and also topics from geometry, discrete mathematics, and probability and statistics. At the end of the course, students are well-versed in areas of: fractions, decimals, mixed numbers, positive and negative numbers, order of operations, percentages, proportions, ratios, divisibility, rounding, place value, unit conversions, scientific notation, and data representation, algebraic representation, and solving real-world problems.

Algebra I/Geometry: This course covers all of the traditional first-year algebra topics while helping students build higher-order thinking skills, real-world application skills, reasoning, and an understanding of interconnecting math strands. The class focuses on multiple representations of algebraic thinking: verbal, numerical, symbolic, and graphical. Topics covered include: algebra foundations; basic geometric concepts; functions and relations; linear equations; polynomials; rational expressions and functions; inequalities; systems of equations and inequalities; radical expressions and functions; quadratic equations; absolute-value equations and inequalities; and probability and data analysis. Real-world applications and continual practice/review are fundamental parts of the class and are important for mastery of the material.

Algebra II/Geometry: This is the second part in a series of algebra and geometry courses. Students will continue working on concepts introduced in Algebra 1/Geometry, but more in-depth. After mastering topics introduced in this course, students should be able to solve equations and inequalities with absolute value quadratic and logarithmic equations, and work with complex numbers and trigonometric functions of right triangle. Also, geometry will be incorporated and the equivalent of formal geometry will be concluded. Students will be introduced to proofs in geometry with similar and congruent figures, circles and their parts, lines, and planes.

Pre-Calculus A: This is the first year of a two year course that provides in-depth coverage of trigonometry, logarithms, analytic geometry, and upper-level algebraic concepts. It completes the study of geometry (which is spread over four years in the Saxon series). Primary emphasis is on a continuation of the practice of intermediate algebraic concepts and skills while the upper-level algebraic concepts and skills are introduced. The study of trigonometry began in the middle of Algebra II/Geometry is continued.

Pre-Calculus B: This is the second year of a two-year course that provides an in-depth coverage of trigonometry, logarithms, analytic geometry, and upper-level algebraic concepts. It completes the study of geometry (which is spread over four years in the Saxon series). Primary emphasis is on a continuation of the practice of intermediate algebraic concepts and skills while the upper-level algebraic concepts and skills are introduced. The study of trigonometry that began in the middle of Algebra II is continued, and a heavy emphasis is placed on the study of trigonometric functions, common and natural logarithms, and the equations of conics.

Pre-Calculus AB: This course provides an in-depth coverage of trigonometry, logarithms, analytic geometry, and upper-level algebraic concepts. It completes the study of geometry (which is spread over four years in the Saxon series). Primary emphasis is on a continuation of the practice of intermediate algebraic concepts and skills while the upper-level algebraic concepts and skills are introduced. The study of trigonometry begun in the middle of Algebra II is continued, and a heavy emphasis is placed on the study of trigonometric functions, common and natural logarithms, and the equations of conics.

AP Calculus AB: This is the first part of a two-year calculus course. Students will learn that functions can be used to describe real life situations. They will understand that in mathematical language, change can be expressed a derivative, and accumulation or gain as an integral. Students will master a wide variety of differentiation techniques and integration methods to deal with more complex functions. This course is designed to cover all of the topics required for the AB Calculus AP test.

AP Calculus BC: This course covers topics in the first part of calculus, i.e. the basic concepts of differential and integral calculus, will be thoroughly reviewed and reinforced. Students will also master the topics required in the BC Calculus AP test. These will include different methods for solving simple differential equations (analytic, graphical, and iterative) and the basic theory of the convergence of the infinite series. Students will work on improving their test taking skills throughout the whole school year.

AP Statistics: This course is to understand concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to the following four broad conceptual themes:

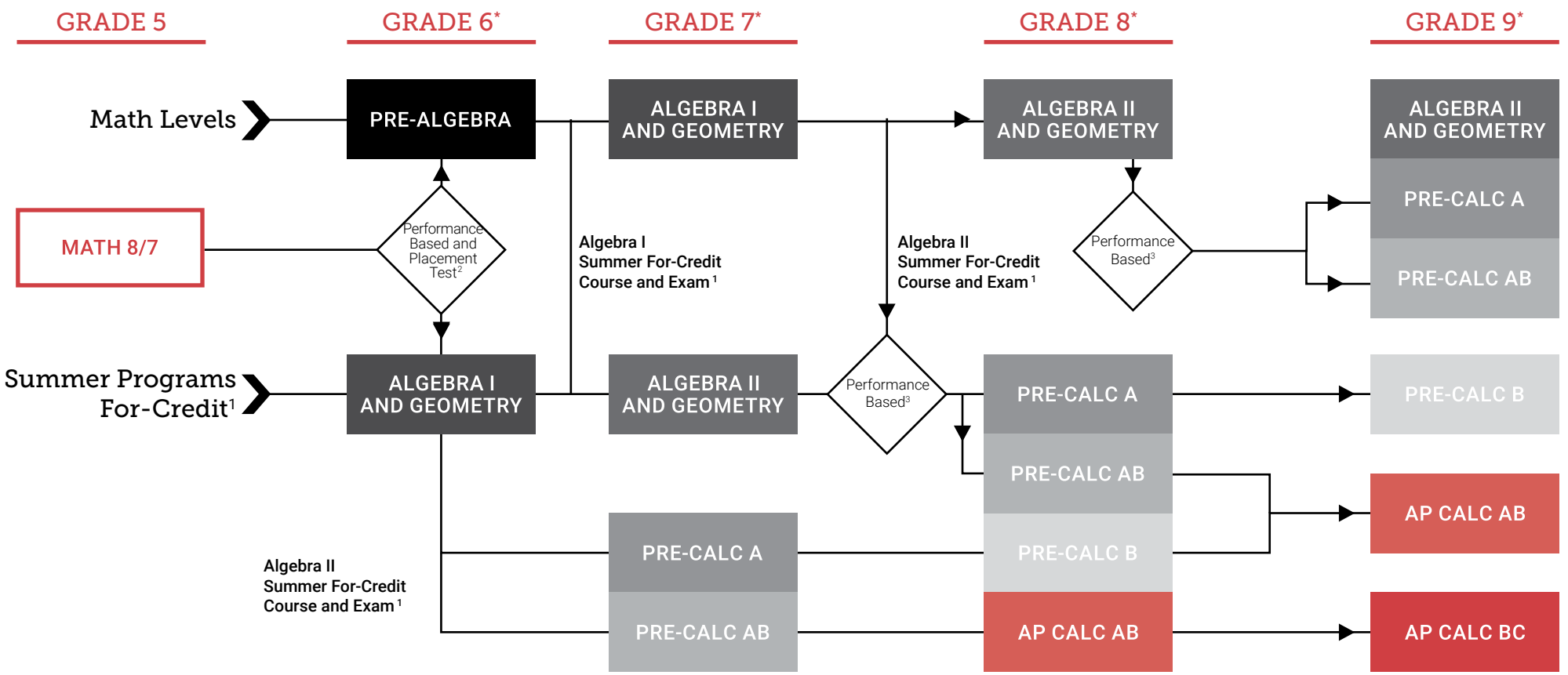
1. Exploring Data: Describing patterns and departures from patterns
2. Sampling and Experimentation: Planning and conducting a study
3. Anticipating Patterns: Exploring random phenomena using probability and simulation
4. Statistical Inference: Estimating population parameters and testing hypotheses

› **Prerequisite:** Pre-Calculus

Additional Courses: Students are eligible to participate in Capstone mathematics courses after completing AP Calculus (either AB or BC). See Capstone/Additional Courses for more information about offerings in Mathematics.

BASIS INDEPENDENT™ SILICON VALLEY

GRADES 5–9 Math Progression



*Math Placement

All incoming students, grades 6–9, are placed into the appropriate level of math per prior school official transcript.

[1]Summer Programs For-Credit

All students who wish to enroll in a for-credit summer math course, must must meet certain eligibility requirements. Please check with the Director of Academic Programs if you are interested in taking a for-credit summer course.

To successfully pass a math course offered during the summer, students must fulfill the following requirements:

- complete 120 hours of mathematics instruction at a BASIS Curriculum School to ensure content aligns with our academic standards
- earn a course grade of 'A'
- pass a cumulative final exam with a score of 90% or higher

[2]The suggested incoming math level for grade 6 students is Pre-Algebra.

Qualified incoming grade 6 students will have the option to be placed in Pre-Algebra or take an Algebra I readiness exam.

A qualified incoming grade 6 student must fulfill the following requirements:

- Completion of their current math course at their current school
- Have a cumulative 'A' average in their current math class or equivalent

If a student fulfills these requirements, they may take the Algebra I readiness exam. In order to pass this exam and be placed in Algebra I, they must score a 90% or higher on the readiness exam.

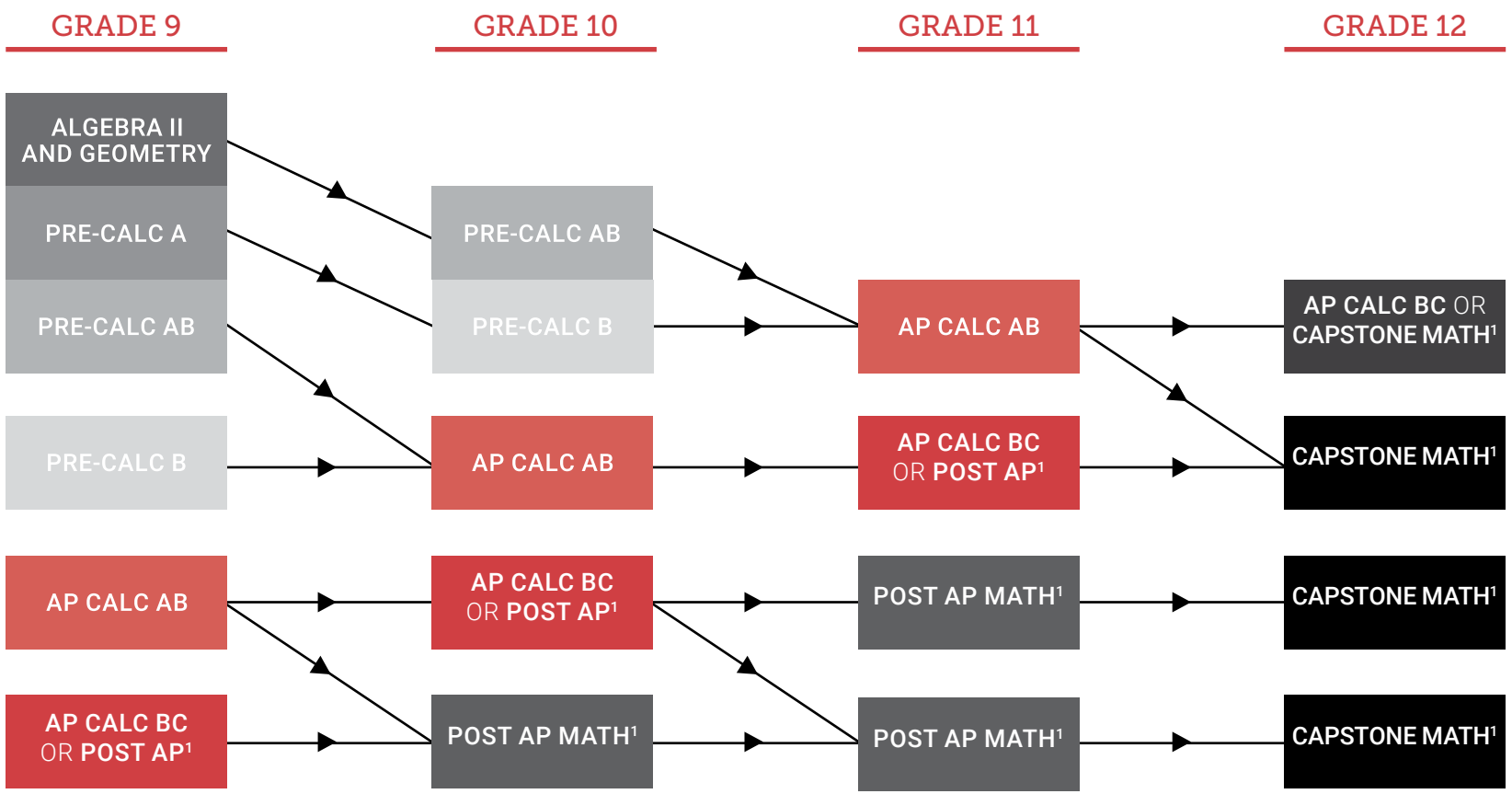
[3]Performance Based

Students are placed into Pre-Calc A or AB based on their Algebra II performance and teacher recommendation.

BASIS INDEPENDENT™ SILICON VALLEY

GRADES 9–12

Standard Math Progression



[1]2021–2022 Math Capstone and Post AP Courses

- Differential Equations | *Prerequisite: AP Calculus BC*
- Econometrics | *Prerequisite: AP Calculus AB and Economics*
- Game Theory and Behavioral Economics | *Prerequisite: AP Calculus AB and Economics*
- Linear Algebra | *Prerequisite: AP Calculus AB*
- Multivariable Calculus | *Prerequisite: AP Calculus BC*
- AP Statistics can also be taken as a Post AP after students have passed AP Calculus AB.

World Languages

Instructional Minutes Per Week
Transitional Kindergarten: 60
Kindergarten: 90
Grade 1: 200
Grade 2: 200
Grade 3: 200
Grade 4: 150
Grade 5: 100
Grade 6: 150
Grade 7: 150
Grade 8: 150
Grades 9–12: 250

In all of the world languages offered (French, Latin, Mandarin, and Spanish), BASIS Independent students will develop skills in listening, speaking, reading and writing with a focus on communication and cultural awareness and appreciation. Students will acquire knowledge in these languages by continually increasing their vocabulary, grammar, and use of idiomatic expressions. Speaking and writing will be emphasized at each level on various topics. Students will describe, ask and answer questions, engage in conversations, and carry out realistic functions to communicate in the target language.

When students successfully complete a level in a world language, our curriculum sequentially graduates them, the following year, into the next level.

TK–Grade 4: Mandarin is required for students in TK–Grade 4. Mandarin is a tonal language. This means that the same word can have multiple different meanings depending on the tone. Students of the language must attend to both the basic sound as well as the tone in order to understand a word. Learning to speak a tonal language means that one must exercise this connection between the left and right hemispheres of the brain in order to improve their tonal comprehension abilities. Introducing Mandarin at an early age promotes the development of interdisciplinary thought and analysis, enabling the students to draw connections between their lessons from different subjects.

Grades 5 and 6: Latin is required for students in grade 5 and grade 6. The instruction of Latin highlights the relationships between English and Latin grammar, syntax, literary and rhetorical devices, and lays a foundation for the acquisition of vocabulary in the Sciences, English, and romance languages (should students choose to study Spanish or French in the following years). Studying Latin also provides a deeper understanding of influential western civilizations.

Grades 7 and 8: Starting in grade 7, students embark on the study of second language with two goals in mind: 1) to gain fluency and expand global cultural awareness, and 2) to succeed on the AP exam(s) for that language. At this juncture, students may choose to continue study of Latin, or to begin study of Mandarin, Spanish or French.

Grades 9–12: During the High School years, all second language instruction involves training students in the following areas of communication: 1) spoken and written interpersonal communication, 2) spoken and written presentational communication, and 3) interpretation of audio, visual, audiovisual, and written materials. It is in this program that students gain a profound appreciation of the language they've chosen and its culture. Students must take at least three years of the same language during their high school years.

Elective Courses

Starting in grade 6, students select an elective course. In grades 8-12, students may select up to two electives (AM and/or PM).

Grade 6 – Instructional Minutes per Week: 250

Band/Orchestra 6: This course provides grade 6 instrumentalists with a performance-ensemble experience that is consistent with the Concert Band and/or Orchestra tradition. Students entering with or without prior experience with an orchestra instrument either choose, or are placed with, an appropriate instrument for the course. Acceptable instruments include string instruments (not including guitar), as well as woodwind, brass, or percussion instruments (not including piano). Most instruments, other than percussion, are acquired by students independently, preferably through a musical-instrument store or rental program. Consistent instruction and guidance will be presented weekly on all instruments, at developmentally appropriate levels, and with the expectation that students will practice and prepare individually, outside of class time, in order to gain proficiency for the overall success of the ensemble, as well as their individual assessment in the class. Students will work as an ensemble in weekly rehearsals, focusing on developing musical skill-sets, such as sight reading, rhythmic accuracy, sound production, timbre and dynamic control, finger technique, intonation, articulation, expression, and overall musicianship. Students will be presented with challenging and varied band/orchestra repertoire throughout the course, in regular preparation for performances as an ensemble, while additionally studying basic music theory concepts, developing aural skills, and exploring music history.

Computer Science 6: This full year course introduces students to the fundamental concepts of computer science through project-based lessons. Projects in this course emphasize the creativity inherent in computer science. The school year begins with a focus on the proper use of Microsoft Office applications such as Word, Excel, and Power Point, compelling students to develop foundational skills necessary for success in other disciplines. In the next units, students will learn to make fun creative projects with visual effects, and they will learn web-design basics. Through a developmentally appropriate tool (block-based programming), students go on to explore game-design and the core concepts of computer science in a fun way. Students will end the year working with programming concepts in Python, a scripting language that uses abstraction and syntax.

Creative Writing 6: This is an introductory course in creative writing in various modes of prose (literary non-fiction as well as fiction) and poetry including scene, characterization, plotting, point of view, and dialogue, with an additional emphasis on prose style. As part of the course, students will read short stories from classic and contemporary writers, as well as articles and essays on craft. Furthermore, students will investigate textual elements and critique class members' original writing. This course will give students the opportunity to explore the world of contemporary and conceptual art. In addition, the class will follow thematic threads woven through time and cultures. Students will learn and apply key concepts and vocabulary while making connections to relevant themes, materials, or techniques through personal artwork. The overall goal for this course is to provide a deeper understanding of how art is used to comment upon social, personal, and artistic issues at the time they were created.

Drama 6: This course focuses on the art of storytelling by utilizing Physical Theatre techniques and traditions—Improv, Biomechanics, Juggling, and Commedia dell'Arte. Drama 6 is a highly active course where enrolled students practice multi-sensory movement and ensemble building exercises to sharpen their creative expression daily, while working on acquiring 21st century soft skills--creativity, collaboration, communication, critical thinking, and community. This course requires performing in two evening showcases featuring devised ensemble projects, as well as attending three live theatre performances outside of school (one per trimester), and writing critiques on these performances to hone students' skills as analytical audience members.

Piano: This course will provide piano students with challenging and varied repertoire while also studying music history and theory concepts. Music theory concepts to be studied include basic written theory, aural skills, sight-reading, and composition. Students will develop technical skills on the piano and will work to achieve musical goals as a group and as individuals, building a foundation for future musical experiences both as audience and performer.

Visual Arts 6: This course will give students the opportunity to explore the world of art through a historical lens. Students will follow ancient artists from 40,000 BCE up through present-day 21st century contemporary artists. Students will be introduced to and apply key concepts and vocabulary to each period while making connections to relevant themes, materials, or techniques through their own artwork.

Grade 7 – Instructional Minutes per Week: 250

Band/Orchestra 7 (Intermediate): This course provides grade 7 instrumentalists with a performance-ensemble experience that is consistent with the Concert Band and/or Orchestra tradition. Students entering with or without prior experience with an orchestral instrument either choose, or are placed with, an appropriate instrument for the course. Acceptable instruments include string instruments (not including guitar), as well as woodwind, brass, or percussion instruments (not including piano). Most instruments, other than percussion, are acquired by students independently, preferably through a musical instrument store or rental program. Consistent instruction and guidance will be presented weekly on all instruments, at developmentally appropriate levels, and with the expectation that students will practice and prepare individually, outside of class time, in order to gain proficiency for the overall success of the ensemble, as well as their individual assessment in the class. Students will work as an ensemble in weekly rehearsals, focusing on developing musical skill-sets, such as sight reading, rhythmic accuracy, sound production, timbre and dynamic control, finger technique, intonation, articulation, expression, and overall musicianship. Students will be presented with challenging and varied band/orchestra repertoire throughout the course, in regular preparation for performances as an ensemble, while additionally studying basic music theory concepts, developing aural skills, and exploring music history.

Computer Science 7: This elective course develops computational thinking and builds student excitement about computing. The focus will be more on text-based programming languages, and the projects throughout the curriculum become more programming-dependent. Through a project-based curriculum, students explore the breadth of experiences and challenges that constitute computer science. In addition to learning about programming and algorithms, students will learn about binary systems and conversion of data for storage in a computer system, computer hardware, web technologies, game development with object-oriented programming concepts, and design strategies and methodologies with an emphasis on logical thinking and problem solving. The projects that the students will complete in class include games with a purpose and web sites. Each final project will be of the students' own choosing, making the projects highly individual and relevant and developing greater autonomy in student learning.

Creative Writing 7: This is an introductory course in creative writing in various modes of prose (literary non-fiction as well as fiction) and poetry including scene, characterization, plotting, point of view, and dialogue, with an additional emphasis on prose style. As part of the course, students will read short stories from classic and contemporary writers, as well as articles and essays on craft. Furthermore, students will investigate textual elements and critique class members' original writing. This course will give students the opportunity to explore the world of contemporary and conceptual art. In addition, the class will follow thematic threads woven through time and cultures. Students will learn and apply key concepts and vocabulary while making connections to relevant themes, materials, or techniques through personal artwork. The overall goal for this course is to provide a deeper understanding of how art is used to comment upon social, personal, and artistic issues at the time they were created.

Introduction to Engineering: This course is designed to allow students to explore engineering through hands-on design projects, case studies, and problem-solving using prototypes and computers. Students will learn about the various aspects of the engineering profession and acquire both technical skills and non-technical skills, in areas such as communication, teamwork, and engineering ethics. Students in this course will understand the engineering design process to apply their knowledge of mathematics, science, and engineering.

Keyboarding: This course will provide piano students with challenging and varied repertoire while also studying music history and theory concepts. Students will develop technical skills on the piano and may work on ensemble skills in order to perform music together as a group. Students will work on note reading, rhythm, musical terms, posture, hand position, finger technique, dynamics, expression, and overall musicianship.

Stagecraft: This course will focus on building a technical foundation for theatrical productions, while applying the principals of the art of storytelling. Through exposure and exploration with hands-on projects, students will study various areas of technical theatre, including scenic design, lighting & sound design and operation, props design and creation, as well as costume and makeup designs. Enrolled students will experience the production process firsthand by contributing to BISV mainstage shows, as well as performing in and designing for their own showcases. This course requires two evening showcases, as well as attending three live theatre performances (one per trimester) outside of school and writing critiques on these performances to hone students' skills as analytical audience members.

Visual Arts 7: In this elective course, grade 7 students will investigate and develop their 2D and 3D art-making skills. The course will focus heavily on the works of contemporary artists, but will also reference historical art pieces. In addition, the class will follow thematic threads woven through time and cultures. This course is based upon the quality of individual expression, a thorough knowledge of historical perspective, and an understanding of current trends, with art as a vehicle of communication.

Upper School Electives – Instructional Minutes per Week: 250

Students have the opportunity to take up to two electives (AM or PM) in grades 8-12. The morning (AM) or afternoon (PM) offerings will vary by school year. Courses are subject to an enrollment minimum and may change based on teacher availability and student interest.

Students must select one elective course for the entire school year. For students in good standing academically and can handle the work load, they may take up to two elective courses. Some electives list prerequisites.

AP Art History: The AP Art History course welcomes students into the global art world to engage with its forms and content as they research, discuss, read, and write about art, artists, art making, and responses to and interpretations of art. By investigating specific course content of 250 works of art characterized by diverse artistic traditions from prehistory to the present, the students develop in-depth, holistic understanding of the history of art from a global perspective. Students learn and apply skills of visual, contextual, and comparative analysis to engage with a variety of art forms, developing understanding of individual works and interconnections across history. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

AP Computer Science A: This course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data, approaches to processing data, analysis of potential solutions, and the ethical and social implications of computing.

The course focuses on an object-oriented approach to problem solving using Java. It includes the study of common algorithms and the use of some of Java's built-in classes and interfaces for basic data structures, as well as a structured lab component comprised of a minimum of 20 hours of hands-on lab experiences integrated throughout the course. Instruction includes preparation for the AP Computer Science exam.

› **Prerequisite:** Introduction to Programming; you must be in grade 9 or above to take this course

AP Computer Science Principles: AP Computer Science Principles is an introductory college-level computing course that introduces students to the breadth of the field of computer science. Students learn to design and evaluate solutions and to apply computer science to solve problems through the development of algorithms and programs. They incorporate abstraction into programs and use data to discover new knowledge. Students also explain how computing innovations and computing systems—including the internet—work, explore their potential impacts, and contribute to a computing culture that is collaborative and ethical.

› **Prerequisite:** You must be in grade 9 or above to take this course. Taking Computer Science A prior to this course is a recommendation.

AP Economics: This course will cover both AP Microeconomics and AP Macroeconomics. In Microeconomics students will have a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. In Macroeconomics, students will have a thorough understanding of the principles of economics that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination, and also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics.

› **Prerequisite:** Students must be in grades 9-12 to take this course

AP Environmental Science: This course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them.

AP Music Theory: AP Music Theory is an in-depth study of music theory, in which students develop notational skills, basic compositional skills, aural skills, and overall musicianship, comparable to a first-year college music-theory course. While the course primarily emphasizes the study of traditional functional-harmony, it also incorporates studies in melodic structure and composition, texture, rhythm, form, form analysis and composition, and history and style. Consistent with traditional music-theory courses, AP Music Theory emphasizes four-part writing in the tonal structures of the Baroque and Classical Eras, although some analysis of stylings from the Romantic Era will also be introduced. Aural development and training, such as sight singing, melodic dictation, and harmonic dictation are regular activities. The course functions to prepare students for the rigorous AP Music Theory Exam, although some students, in coordination with the instructor, may choose to opt out of the AP Exam, and take an independent final exam administered by the instructor. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

AP Psychology: This course provides an overview of the foundations, theories, research and applications of the science of psychology. It also emphasizes current knowledge and research in the field. Students should complete the course with critical-thinking skills and with the ability to use the scientific method to evaluate information.

› **Prerequisite:** Must be in grade 9 or above to take this course

AP Seminar (First Year of AP Capstone): This course is, by design, an interdisciplinary venture. AP Seminar applies the study of language to a variety of genres, the study of the sciences and statistics to historical patterns, the study of the natural world to political philosophy and economic exchange. Students who can make inter-disciplinary connections will make more competitive candidates in the professional fields and in elite university programs. A seminar that allows students to make original connections between diverse topics and concepts will help students better apply each lesson they receive in class to one another and to their own experiences. The course will help students better articulate their ideas, form savvy arguments, write unflinchingly on virtually any topic in standardized and college-entrance exams, make ample connections between past and present worlds, and tackle college-level theoretical analysis in a range of subjects. Ultimately, the interdisciplinarity of the course will make our students, with their penchant for categorizing subjects and material, into original thinkers and intuitive scholars.

AP Statistics: This course is to understand concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to the following four broad conceptual themes:

1. Exploring Data: Describing patterns and departures from patterns
2. Sampling and Experimentation: Planning and conducting a study
3. Anticipating Patterns: Exploring random phenomena using probability and simulation
4. Statistical Inference: Estimating population parameters and testing hypotheses

› **Prerequisite:** Pre-Calculus

AP 2D Art and Design: In this course, students will make works of art and design by practicing, experimenting, and revising, and will communicate ideas about art and design through written and visual expression. Students will create a portfolio of work to demonstrate inquiry through art and design and development of materials, processes, and ideas over the course of a year. Portfolios include works of art and design, process documentation, and written information about the work presented. In May, students submit portfolios for evaluation based on specific criteria, which include skillful synthesis of materials, processes, and ideas and sustained investigation through practice, experimentation, and revision, guided by questions. A-G criteria for a Visual and Fine Arts credit.

AP World Language Elective: Based on demand, BISV will offer AP elective courses in Mandarin, Spanish, French and Latin. These courses may not be taken in lieu of the core requirement of three years of World Language. Only native speakers of the aforementioned languages will be eligible for the AP World Language elective.

Art Studio 2D: Art Studio 2D is designed to investigate and develop students' drawing, painting, and printmaking skill-sets. Students explore traditional and contemporary methods of art making incorporating various media. The course focuses heavily on the works of contemporary artists, but references art historical pieces. In addition, the class follows thematic threads woven through time and cultures. This course is based upon individual expression, historical perspective, and current trends as a vehicle of communication. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Audio & Music Production: This course focuses on the theory and practice of audio production and its relationship to other aspects of media production. Students will learn how to listen to audio and music with a critical ear. They will learn how to balance sound using different editing techniques. They will also participate in producing their own audio projects (sounds, songs, playlists, etc.) by recording and editing their own audio. This course is currently under review to meet the UC A-G criteria for a Visual and Fine Arts credit.

Band/Orchestra: This course provides grade 8-12 instrumentalists with a performance-ensemble experience that is consistent with the Concert Band and/or Orchestra tradition. Students may join Upper School Band/Orchestra on a woodwind, brass, string, or percussion instrument (not piano or guitar) either by audition, instructor's approval, or prior completion of Intermediate Band/Orchestra (grade 7). Daily rehearsals and individually assigned topics and repertoire require students to study and practice outside of class time in order to gain proficiency for the overall success of the ensemble. Students work as an ensemble in preparation for upcoming concerts and performances throughout the year, and further develop critical musical skill-sets, including sight reading, instrumental technique, rhythmic accuracy, intonation, sound production, timbre and dynamic control, articulation, expression, and overall musicianship. Students will be presented with challenging and varied repertoire throughout the course, while additionally studying music theory concepts, developing aural skills, and exploring music history. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Biotechnology: Have you ever wondered how scientists tinker with genes, turn bacterial cells into tiny factories which can churn out medicines, modify crops, or study the effects of a gene on human health? Biotechnological techniques are at the center of all these advances. This course is a project and lab-based course designed to develop an understanding of biotechnology theory and research, including proteomics, genomics, and epigenetics. Students will build strong knowledge of current industry biotechnology innovation and molecular biology techniques. Performing varied experiments from tissue DNA extraction to restriction digests, and PCR, they will gain experience in experimental design, scientific data analysis, writing and communication, and effective collaboration. Students should have taken AP Biology or any AP science to be successful in this course.

› **Prerequisite:** Any AP level science course, AP Biology preferred

Choir: This course will provide singers with challenging and varied repertoire while also studying music history and theory concepts. Students will work as an ensemble to continue developing their musical skills including proper vocal technique, posture, breathing, tone, intonation, diction, dynamics, expression, and overall musicianship.
Music theory concepts to be studied include written theory, aural skills, sight singing, and composition. Music history will be explored through learning about composers and listening to major musical works from various style periods. Students will work to achieve musical goals as a group and as individuals, building a foundation for future musical experiences, whether as a performer or an audience member. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Digital Art: In this elective course, students will develop their 2D art-making skills on a digital platform. Students will explore the pros and cons of digital art vs traditional mediums, and expand on their skills in digital painting. Students may use various software, and must have means of drawing digitally in class with a stylus. In addition, the class will follow procedural lessons for creating concept art and visual development. This course is currently under review to meet the UC A-G criteria for a Visual and Fine Arts credit.

Digital Photography: This course is designed to investigate and develop students' photographic skills with an emphasis on composition as well as content. Students will explore traditional and contemporary methods of photography as well as commercial techniques. This course is based on individual expression, historical perspective and current trends as a vehicle for communication. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Empowering Entrepreneurs: This course is designed to empower entrepreneurial literacy among high school students. Students will synthesize the aspects of entrepreneurship in teams by working with their instructors and local entrepreneurs. Upon completion of this course, students will be ready to successfully apply concepts such as collaboration, communication, creativity, and critical thinking to any situation; concepts which are vital for entrepreneurial thinking in a global 21st century world. The units in this course were aligned to the Career & Technical Education standards.

› **Prerequisite:** Intro to Business; Available to grades 9-12

Engineering & Technology: This course will introduce students to a variety of engineering discourses, ideologies and techniques through the application of following an engineering design process. Students will develop problem solving, logic and relationships skills through unique and meaningful projects. Solutions created by the students will be analyzed, reported and communicated using a variety of mediums. Students will learn how engineers and technicians use math, science and technology to solve problems which benefit people and solve real-world problems. Students will engage in hands-on, real-world projects, to gain an appreciation for social and political needs and technologies.

Film Studies: This course combines rhetorical investigation to the examination of film in culture. Film history, theory, and criticism, as well as the basics of film production will be discussed. The Film Studies course will explore the implications of cinema, including the narrative, artistic, and cultural aspects. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Guitar: This course is an introduction to fundamentals of guitar performance, with emphasis on learning and performing popular songs, reading music notation, and essential theory for chord construction. This course currently under review to meet the UC A-G criteria for a Visual and Fine Arts credit.

› **Prerequisite:** Available to grades 8–12

Introduction to Business: This course will acquaint students to the multiple facets of planning, starting, operating, and growing a business. The course will cover what it means to be an entrepreneur and how a business fits into the overall economic system. The student will gain a better understanding of identifying opportunities, conducting market analysis, spearheading a marketing campaign, managing finances and financial statements, and developing a business. To reflect the entrepreneurial spirit of Silicon Valley, the course will also focus on technological startups and their life stages, including, bootstrapping, funding, and exit strategies. Students will also partake in a business project where they will develop a business from the ground up utilizing the lessons learned from the course either individually or as a team. (Due to existing requirements with DECA and the state of California Department of Education, any student who wants to compete in DECA must take Introduction to Business in grades 8-12. Students who wish to do more than one year of DECA will have to take an additional Empowering Entrepreneurs course.)

Introduction to Law: This course is modeled after Jurisprudence courses offered at the university level. It is modified for high school students in grades 9-12. This course covers the principles and philosophies behind the American Constitution, beginning with the necessity and idea behind checks and balances. The students will then read actual cases that challenged the application of the Bill of Rights to certain statutes or laws. By the end of the year, students will engage in debates and act as "lawyers" presenting a Constitutional argument. The class will have nightly reading and will be heavily discussion oriented.

› **Prerequisite:** Available to students in grades 9-12 who have 1 year of US History

Introduction to Organic and Biochemistry: This course covers the basic principles of organic chemistry including structure, properties, naming, and simple reactions of the following classes of compounds: hydrocarbons, alcohols, aldehydes, ketones, ethers, esters, amines, carboxylic acids, amides and heterocycles. The second part of the course demonstrates how these simple molecules combine to make macromolecules of life: carbohydrates, proteins and DNA. Molecular aspect of biochemical processes in cells will be covered in this part of the course. The course is targeted for students who have not taken Honors or AP Biology.

› **Prerequisite:** Chemistry 7 or Chemistry 8. (The class is open to students in grades 8 and up who have had at least one year of chemistry at BISV. Student must be in good academic standing and have course instructor's approval.)

Introduction to Philosophy: In this class, we will look at some of the most important and vexing questions in philosophy such as: Is there one true meaning/purpose to life? Do we have free will? Is there a God? What form of government is best? Is morality objective or subjective? What happens when we die?

Our main goal is to actually make progress in answering these questions. To this end, you will, of course, be required to read and engage with texts, both ancient and contemporary; but you're also going to be required to do philosophy: for each text we read, you will be required to critically engage with it, offering arguments for why the author is correct or incorrect in their position.

Introduction to Programming: This elective course serves as a pre-AP Java programming course. Students are introduced to the Java development cycle, object-orientation, and control structures. Students learn about primitive data types and their wrapper classes, operators, data structures such as arrays and lists, and special topics. The course also emphasizes the problem solving aspects of programming. Concepts covered in this course are further developed as students progress through the computer science discipline. Completion of this course fulfills the prerequisite to enroll in AP Computer Science A.

Photojournalism: This is a hands-on course combining photojournalistic concepts and digital photography. Students will learn how to produce storytelling imagery, write captions, create layouts, and utilize the elements of design in order to create and publish the school yearbook. Emphasis will be placed on photography composition, lighting, camera technique, color correction and editing digital images. Students will be required to attend and photograph one after school event per trimester. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

Piano: This course will provide piano students with challenging and varied repertoire while also studying music history and theory concepts. Music theory concepts to be studied include basic written theory, aural skills, sight-reading, and composition. Students will develop technical skills on the piano and will work to achieve musical goals as a group and as individuals, building a foundation for future musical experiences both as audience and performer. This course meets the UC A-G criteria for a Visual and Fine Arts credit.

PE & Sports: This program is a mix of aerobic/anaerobic exercise, strength and endurance training, and sports/games. The students will rotate through a weekly schedule that includes running, exercise, and sports. Throughout the year, students will build endurance and learn about sports and fair play. They will learn about the importance of sportsmanship and teamwork in all aspects of their training and physical play. By the end of the year, the students will have learned to work together and how to encourage each other to perform at their best level.

› **Graduation Requirement:** Starting in Grade 9, students need PE as a graduation requirement. Students may earn this credit in school or outside school. Please reach out to your dean for details.

Production Design: This an experimental theatre lab dedicated to producing challenging yet entertaining works from contemporary playwrights. Enrolled students will practice all aspects of theatrical production by modeling the role of a working professional in acting, directing, designing, tech, and management. Producing a show as an ensemble is the ultimate in both project-based learning and using higher order thinking skills. Students will gain experience in working in a group, time management, conflict resolution, and other interpersonal skills necessary to working as part of a creative team. This course requires an Acting/Design Portfolio final, two evening showcases featuring full productions, as well as attending six live theatre performances (two per trimester) outside of school and writing critiques on the performances viewed to continue to hone students' skills as analytical audience members. This course is currently under review tomeet the UC A-G criteria for a Visual and Fine Arts credit.