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2025-26 COURSE HANDBOOK

SUIS WANYUAN HIGH SCHOOL

Catalogue

2025-2026 COURSE HANDBOOK
SUIS WANYUAN AMERICAN HIGH SCHOOL

Key Information

The purpose of this handbook is to provide you with an overview of our course offerings for the 2025-26 school year. Please take some time to carefully read over the course descriptions, especially for those elective courses you are interested in taking. During Semester 2, our Career and University Guidance (CUG) counselors, together with the support of the Principal, will begin to work with each of our students to help them with course selections for the next school year.

Here are the steps in the course selection process:

1. CUG counselors will organize individual conferences with students to advise them on their academic trajectories.
2. Course Selection Forms are distributed and Course Info sessions will be offered by teachers during ECA times to go over prerequisites and course expectations for AP and Honors courses.
3. Each student will complete their Course Selection Form based on academic advising offered by the CUG team, course prerequisites and core course requirements for each grade level.
4. Students will submit their Course Selection Form (signed by parents) to the CUG Office.
5. Each Course Selection form will be carefully reviewed by the student's CUG advisor and the Principal.
6. After course selections have been approved and all prerequisites for advanced courses have been met, students will register for their selected courses online via Renweb.
7. Students are notified of their finalized course selections by the beginning of June 2025.
8. Course schedules for the 2025-2026 school year will be published in June 2025.

* Please note that, due to timetable conflicts and class size limits, we are unable to guarantee that all course selections for each and every student will be possible. However, we will accommodate each student's course selection needs such that every student will meet our graduation requirements by the time he/she completes Grade 12.

Curriculum Vision Statement

Shanghai United International School Wanyuan American High School facilitates a developmental curriculum that assists each student to achieve his/her full potential. We are committed to providing a course of study that prepares each student for admission to reputable four-year colleges and universities in North America and Europe with solid undergraduate programs. With our 'East Meets West' approach, we adopt the best teaching practices from the East and West while placing a strong emphasis on pastoral care, students' emotional well-being, and providing differentiated learning paths tailored to each student's strengths and potential. We aim to provide our students with a holistic education to help them develop into knowledgeable, skillful, positive, and balanced individuals.

Using subject standards initiated in the United States (e.g., Common Core, Advanced Placement (AP), and Next Generation Science Standards), our American curriculum prepares our students with strong content knowledge in a broad range of subjects. Our teaching practices provide students with a platform to become independent, critical thinkers, and creative problem-solvers. We expect our students to graduate from SUIS Wanyuan as lifelong learners who are equipped with global competencies, eager to actively participate in our increasingly globalized society, and who positively contribute to making a difference in society.

The Common Core Standards and AP Curriculum

The US Common Core Standards are a set of learning objectives drafted by experts and teachers from across the US and designed to ensure that students are prepared for various entry-level careers, freshman-level college courses, and workforce training programs. The Common Core Standards focus on developing the critical-thinking, problem-solving, and analytical skills that students will need to lead a fulfilled and productive life in the 21st century world.

Advanced Placement (AP)

The "Core" curriculum refers to the main body of courses that students must complete in order to graduate from our American high school and be prepared for college and/or university. These courses align with A-G university admission requirements. Depending on a course's prerequisites, the student's level, and their previous coursework and grades, students will be able to choose from both compulsory and elective courses to fulfil graduation requirements (see below). A CUG counselor will assist students in making their course selections according to their interests, academic strengths, and intended university majors to ensure that each student is on the right track for successful admission into college/university programs that will lead to their chosen career. Some courses have prerequisites, which refer to courses that students must take and earn a passing grade in prior to their enrolment in the course. As with any curriculum, proper course sequences must also be followed.

Courses listed as "AP" refer to Advanced Placement college preparatory courses authenticated by College Board. Passing these courses with high marks may earn students college/university credits and will positively impact admissions to college/university. Because AP level subjects are college-level courses covering material in more depth and breadth and at a faster pace, students who wish to enroll in an AP course must adhere to the following criteria:

1. The student should have a minimum overall cumulative Grade Point Average (GPA) of 3.0. A student's ability to succeed at high-level academic courses should be reflected in their current GPA.
2. Students should possess an English level sufficient enough to read and engage with university-level textbooks (normally between 1200-1400 Lexile range) and some courses will require students to possess a TOEFL score > 90 and pass an oral interview.
3. The student must meet individual course prerequisites, whether set by SUIS teachers or College Board.

4. ***All students enrolled in AP classes are expected to register and sit for their AP exams in May.*** An AP course is **BOTH** the course and the May exam administered by College Board. Students are responsible for the examination fee.
5. ***SUIS students may not register for an AP exam without taking the AP course.*** University Admissions Officers constantly inform us that submitting AP scores to a university without having the AP course on a student's transcript is pointless. They want to see students master the course material and exam.

Note: AP courses and Honors courses are weighted; the additional weight for all Honors and AP courses is +1.0 which will be reflected in the student's GPA. For more information about AP courses, please visit: www.collegeboard.org.

Elective Courses

The American high school program at Wanyuan offers students the flexibility of taking courses according to their interests and preferences while meeting graduation requirements. A large range of courses are offered by each Department from which students can choose to take as 'Elective' courses. Our experienced CUG counselors will guide students during each step of the course selection process. Designing one's own learning path while working towards graduation is another unique American educational tradition as this is still the model in all colleges and universities in America.

Graduation Requirements

SUIS Wanyuan's American High School program is a rigorous and challenging academic program designed to prepare students for U.S. and other top universities around the world. Our College Preparatory Curriculum adheres to both American Common Core Standards and A-G course requirements for all U.S. university admissions and provides our students with a range of courses, from our SUIS created courses, to authentic American Common Core courses, to more advanced Honors and AP courses. Students are expected to perform at their highest academic levels and our encouraged to take courses that suit each student's learning abilities and objectives. To obtain the SUIS Wanyuan American High School Diploma, students must complete a minimum of 20 credit hours (or 26 if joining the high school at the beginning of 9th grade) from among the following disciplines.

A-G Requirements	Credits/Years	Core Courses	Honors & AP Courses
A. History / Social Studies	3 (1 yr. of World, 1 yr. of U.S. history required)	• World History I • World History II • U.S. History	• World History I Honors • AP World History: Modern • AP U.S. History • AP European History • AP Human Geography • AP Microeconomics • AP Macroeconomics

B. Literature-based English	4	• English Literature 1 • World Literature (Eng. Lit. II) • American Literature • British Literature • Academic Writing I & II	• English Literature I Honors • Honors English • AP English Language & Composition • AP English Literature & Composition
C. Math	3-4 (Precalculus usually required as minimum)	• Geometry • Algebra II • Precalculus • Introduction to Statistics • Financial Math	• Algebra II Honors • AP Precalculus • AP Calculus AB • AP Calculus BC • AP Statistics • Multivariable Calculus
D. Laboratory Science	3-4 (1 from a life science)	• Physical Science • Earth & Space Science • Biology • Physics • Chemistry • Anatomy & Physiology • Forensic Science	• Honors Biology • Honors Physics • AP Physics 1 • AP Physics 2 • AP Physics C • AP Biology • AP Chemistry • AP Environmental Science
E. Chinese	3 (3 yrs. of Chinese required)	• Intro to Chinese Culture • Chinese Language & Culture I • Chinese Language & Culture II • Chinese Language & Culture III • Chinese Literature Appreciation	
F. Visual & Performing Arts	1	• Introduction to Art • Multimedia Arts I & II • Introduction to Music • Instrumental Music • Choral Music	• AP Drawing • AP 2-D Art & Design • AP 3-D Art & Design • AP Music Theory
G. College Prep. Elective	2-5	• any course from A-F • Creative Writing • Dramatic Arts • Public Speaking & Debate • Introduction to Psychology • Sociology/Philosophy • Economics • History through Film • Introduction to Engineering	• AP Microeconomics • AP Macroeconomics • AP Psychology • AP Computer Science A • AP Computer Science Principles • AP Seminar • AP Research
P.E.	1	• P.E. I & II	

Departments and courses

ARTS

AR101: Visual Arts I – Introductory

1 Year – 1.0 Elective Credit

Visual Art I is a full-year course for all students who are interested in learning about a broad range of visual art. Students will use an inquiry-based approach to learn about and create a variety of artworks, including drawings, paintings, 3-D, and mixed media works. At SUIS Wanyuan, many students who take Visual Art I will eventually take one of the AP Art courses. Therefore, Visual Art I is focused on building and developing foundational technical, creative, and perceptual skills required for more advanced art courses.

AR107: Multimedia Arts I – Introductory

1 Year – 1.0 Elective Credit

The Introductory Multimedia Arts program is constructed from 6 different modules. If one module is not completed or the student receives a failing grade, they will be unable to continue on to the next level. In this course we will learn the basics of visual composition, digital photography, and graphic design; as well as having compelling discussions about the moral implications of the production and consumption of media. Among other activities, students of this course can expect: photoshoots and photowalks inside and outside the school; creation, printing, exhibiting, and further analysis of posters and other pieces of work; and developing a personal project of their choice. This course will require students to complete tasks and assignments outside the classroom and at home on their own time. Prerequisites: No prerequisites are required for this course as it is designed for 9th graders and aims to introduce them to the fundamentals of multimedia arts without assuming any prior knowledge or experience in the field. The curriculum is structured to accommodate beginners and provide them with a foundational understanding of multimedia arts.

AR207: Multimedia Arts II – Intermediate

1 Year – 1.0 Elective Credit

The Intermediate Multimedia Arts course is constructed from 5 different modules. If one module is not completed or the student receives a failing grade, they will be unable to continue on to the next level. In this course we will develop the skills in terms of creation of digital content: we will develop a photographic style in order to tell a specific story, and organize our work in a photo book following the basics of page layering; will learn the basics of animation (stop motion, claymation, 2D); will produce a short film, from storyboarding to framing, sequencing, and sound. Students will develop a personal project of their choice. This course will require students to complete tasks and assignments outside the classroom and at home on their own time. Prerequisites: successful completion of Multimedia Arts I or Introduction to Visual Arts course.

AR201: Visual Arts II – Intermediate

1 Year – 1.0 Elective Credit

Visual Art II is a full-year course for mature students who have a strong interest in and commitment to learning about visual art. Students will use an inquiry-based approach to learn about and create a variety of artworks, such as drawings, paintings, printmaking, 3-D, and mixed media works. Students in Visual Art II will focus on building and developing foundational technical skills, conceptual skills, and perceptual skills, with the aim of enrolling in an AP Art course the following year. Prerequisites: AR 101 or one year of High School Visual Art.

AR501C: AP Drawing

1 Year – 1.0 Elective Credit

The AP Drawing course is a full-year, college-level course for mature students who have a strong interest in and commitment to visual art. Students will use an inquiry-based approach to learn about and create drawings, paintings, printmaking, and mixed media works. Students are expected to conduct an in-depth, sustained investigation of materials, processes, concepts, and ideas. Focus is placed on skills that are necessary in university-level foundation drawing, painting, or printmaking courses. AP Drawing students should develop and apply skills of inquiry, investigation, practice, experimentation, exploration, revision, communication, and reflection. Prerequisites: Successful completion of 1 year of high school art (preferably 2), plus permission from the instructor.

AR501B: AP 2-D Art and Design

1 Year – 1.0 Elective Credit

The AP 2-D Art and Design course is a full-year, university-level course for mature students who have a strong interest in and commitment to visual art. Students will use an inquiry-based approach to learn about and create 2-dimensional forms of art. Students are expected to conduct an in-depth, sustained investigation of materials, processes, concepts, and ideas. In AP 2-D Art and Design, you'll use the skills you learn in the course, and your own ideas, to create unique works of art. Throughout the course, you'll develop an inquiry

that guides artmaking through practice, experimentation, and revision of materials, processes, and ideas while demonstrating 2-D art and design skills through graphic design, sequential art, photography, collage, printmaking, illustration, industrial design, animation, game design, painting, fibers, and others. Prerequisites: Successful completion of 1 year of high school art (preferably 2), plus permission from the instructor.

AR501A: AP 3-D Art and Design (Sculpture)

1 Year – 1.0 Elective Credit

The AP 3-D Art and Design course is a full-year, university-level course for mature students who have a strong interest in and commitment to visual art. Students will use an inquiry-based approach to learn about and create 3-dimensional forms. Students are expected to conduct an in-depth, sustained investigation of materials, processes, concepts, and ideas. Focus is placed on skills that are used in college foundation sculpture or 3-D design courses. AP 3-D students should develop and apply skills of inquiry, investigation, practice, experimentation, exploration, revision, communication, and reflection. Prerequisites: Successful completion of 1 year of high school art (preferably 2), plus permission from the instructor.

MU101: Introduction to Music

1 Year – 1.0 Elective Credit

Introduction to Music is a general course that teaches fundamentals of music theory, American music history, and an overall appreciation for music. In addition, the course will give students the requisite skills needed to take AP Music Theory the following year. Upon taking this course, students will: (1) Acquire a solid understanding of the fundamentals of melody, harmony, and rhythm, (2) Gain knowledge of the history of American popular music from the 1860s to the 2000s, (3) Develop the ability to distinguish between the sounds of various genres of Western popular music, (4) Understand US culture through the lenses of historical popular music. This is a course suited for non-musicians interested in learning the basics of music. It is also for those who would like to be a music major but do not yest have the required skillset for AP Music Therory. The only prerequisite for this course is to have a good attitude, and the desire to learn and have fun!

MU204: Choral Music

1 Year – 1.0 Elective Credit

A performance focused vocal course that provides students with the skills needed for effective musical performance. Using western music, the curriculum includes: (1) Enhancing stage presence and engaging with audiences, (2) Building vocal confidence and technique, (3) Learning a broad range of songs from Western music history, (4) Participating in multiple live performances throughout the year. This is an advanced course for students who have previous experience singing, specifically in formal ensembles and/or private lessons. This course is not suitable for beginners or those who have no interest in performing on a stage. There will be a pre-assessment on Week 1 to determine placement in the course.

MU302: Instrumental Music (Band/Ensemble)

1 Year – 1.0 Elective Credit

A performance focused instrumental course that provides students with the skills needed for effective musical performance. Using western music, the curriculum includes: (1) Master and perform a diverse repertoire, including European classical pieces, American Jazz, and Western popular music, (2) Build and exhibit confidence in performing on stage, showcasing developed stage presence and performance skills, (3) Collaborate effectively within a team setting and assume personal responsibility for individual outcomes, emphasizing the importance of self-rehearsal and independent skill enhancement. This is an advanced course for students who already have a solid foundation on their instrument, specifically in ensembles and/or private lessons. This course is not suitable for beginners or those who have no interest in performing on a stage. There will be a pre-assessment on Week 1 to

determine placement in the course.

MU501: AP Music Theory

1 Year – 1.0 Elective Credit

AP Music Theory is a university-level course which combines music reading, writing, analysis, performance, and aural recognition skills to build a comprehensive foundation in the language of music and its composition. Students are expected to take the AP Music Theory examination in May 2025. This is an advanced course with Prerequisites: The students entering this course must demonstrate basic proficiency in reading treble clef, reading and hearing basic rhythms, and reading and hearing major scales. There will be a pre-assessment on Week 1 to determine placement in the course.

CHINESE

CH001: Introduction to Chinese Culture

1 Year – 1.0 Core Credit

This course is designed for students taking the middle school entrance examination. It will be delivered mainly by literature reading, essay register as Narration, Argumentative Essay, Poem, Prose, Novel, Drama and Ancient classical literature will be introduced. Learning in this year will help students set up a brief understanding of literature and will also develop their knowledge and skills further for further learning in Chinese 1. Meanwhile, there are five areas for students to focus: Verbal communication, Common knowledge of Chinese literature, Literature reading with appreciation, Writing and Understanding of Chinese culture. Therefore, students are expected to maintain their enthusiasm for learning Chinese, develop advanced skills in appreciation of literature and be more confident when using this language in a wider context. Required for 9th grade students who need to participate in the senior high school entrance examination.

CH101: Chinese Literature and Culture I

1 Year – 1.0 Core Credit

This course will be delivered mainly by literature reading, essay register as Narration, Argumentative Essay, Poem, Prose, Novel, Drama and Ancient classical literature will be introduced. Learning in this year will help students set up a brief understanding of literature and will also develop their knowledge and skills further for further learning in Chinese 2. Meanwhile, there are five areas for students to focus: Verbal communication, Common knowledge of Chinese literature, Literature reading with appreciation, Writing and Understanding of Chinese culture. Therefore, students are expected to maintain their enthusiasm for learning Chinese, develop advanced skills in appreciation of literature and be more confident when using this language in a wider context. Chinese Geography, Chinese History and Governing will be also embedding in this course as for culture understanding consideration.

CH201: Chinese Literature and Culture II

1 Year – 1.0 Core Credit

This course is a continuation of CH101. The skill of independent reading will be introduced and developed. Students will focus on five areas: verbal communication, common knowledge of Chinese literature, reading and appreciation of literature, writing, and understanding of Chinese culture. Students will be given the opportunity to appreciate literary works from different perspectives, and they are also expected to be able to express and justify their opinions with sufficient argument, support, and evidence by the end of the year. This course will help students develop an understanding of literature and improve their knowledge and skills in preparation for further study in CH301. The history of China and the Chinese economy will be embedded in this course as part of Chinese culture education. The Primary Text is the Textbook of G11 Chinese National Curriculum Chinese Language Arts, History and Politics. Prerequisites: Complete the

course of CH101 or complete the level of G10 Chinese National middle school program.

CH301: Chinese Literature and Culture III

1 Year – 1.0 Core Credit

This course is an elective course that follows CH201，but this course is compulsory for students who will take the qualifying exam.It mainly consists of the study of literature and the interpretation of all genres and phases of language. Throughout this course, students will continue to build up a proper, but also personal, understanding of Chinese literature and will be encouraged to study Chinese literature and language in the future. The course will focus on interpretation, critical thinking and reflection via discussions or debates. Creative writing skills will also be developed in this course. Students are expected to maintain their enthusiasm and enhance their reading capacity and reflection skills. The Primary text is the Textbook of G12 Chinese National curriculum. Prerequisites: Complete the course of CH201 and the students need to participate in the qualified examination

CH401: Chinese Literature and Movie Appreciation

1 Year – 1.0 Core Credit

This course is an elective course for students who have completed CH201 with a grade of A, or who have completed CH301. Students who wish to develop a deeper appreciation of their native language and literature should take this course, which mainly consists of novel reading, movie watching, and the interpretation of written texts and visual images. This course will help students to develop an appreciation of the artistry of literature and movies, and to develop an ability to reflect critically on what they read or viewed. The course will focus on interpretation, critical thinking, and reflection via classroom discussions and debates. Creative writing skills will also be developed in this course. In particular, students will be expected to develop the ability to express their ideas in clear, unambiguous language, paying attention to the appropriate style and register. Prerequisites: a grade of "A" in CH201 and departmental approval.

CH402: Ancient Chinese Poetry Study and Appreciation

1 Year – 1.0 Core Credit

This course is an elective course for students who have completed CH201 with a grade of A or higher, or who have completed CH301. Students who wish to develop a deeper appreciation of their native language and literature should take this course as an elective. This course will lead students to study the most representative writers and works of various periods in the history of Chinese literature. It aims to cultivate students' ability to analyze different works in detail and establish appropriate connections between them. This encourages students to understand the literary charm of a writer's works and develop a lifelong interest in them. Prerequisites: a grade of "A" in CH201 and departmental approval.

Career and University Guidance

My Career Blueprint

This program enables students to explore themselves and career pathways. Self-concept and career clusters are introduced at the beginning, so students understand relationships between their personal self-concepts and career choices. Along with that, three assessments will be conducted: Kuder Career Interests Assessment, Kuder Skills Confidence Assessment and Super's Work Values Inventory-revised. Based on the results of the assessments, students are able to state their highest areas of interests and skills as related to career clusters. After their occupation exploration in depth, students are expected to look into the education requirements for entry into occupations of their highest preference and select an education path that they plan to follow in and after high school.

College Match
All students, regardless of grades or test scores, have colleges from which to choose. This course will be a practical guide for students to discover themself and choose the colleges that fit and match them. The topics are: Understand college choice as process, self-survey for the college bound, understand the qualities and characteristics of colleges, Building your college list, learning from campus visit, essay writing and making your resume work for you, the admission process revealed. Prerequisites: Completed Kuder stage 1 program.

College Application Preparation (CAP)
Mandatory for ALL 12th grade students, this course is specifically designed to help prepare and guide our seniors in their university application process. During Semester 1, students work with their CUG on their dossier at CIALFO. Students spend time writing their personal essay, researching on the opportunities available to them to pursue their study abroad in the field they have chosen, familiarize themselves with the universities which offer such programs, and prepare all the required documents for the applications. During Semester 2, students continue to work with their CUG to finalize their college applications, prepare official documents for visa application and other documents required by the college/university that they have accepted the offer.

ENGLISH LANGUAGE ARTS

ESL (grade 9-10)
1 Year – 1.0 Core Credit
This course establishes a foundation for success by focusing on increasing language fluency and the development of communication skills like, reading comprehension, grammar and language usage, composition, vocabulary development, and study techniques. Core skills include focus on presentational speaking skills, reading comprehension, mechanics and editing, and intensive vocabulary acquisition. There will be opportunities throughout the year for students to "test out" of ESL if a student's level improves to the point of no longer requiring the additional course. *This is a compulsory class for new 9th and 10th grade students whose Lexile score is below 800!*

EN101: English Literature I (grade 9)
1 Year – 1.0 Core Credit
English Literature I is a 9th grade American high school, literature-based English class. Its aims are to introduce students to literary analysis and the terminology appropriate to the academic study of literature through the close reading of different literary genres. This course establishes the foundational skills that students will need throughout high school and university with an emphasis on developing analytical reading skills, academic writing skills, and critical thinking skills. Selected novels, dramas, short stories, and articles will be read and analyzed in terms of theme, purpose, rhetoric, style, character development, plot, setting, and tone and mood. Students will also produce an array of written compositions and learn how to write a literary analysis paper. Prerequisites: None

EN104: English Literature I Honors (grade 9)
This is an Honors-level English Literature I class designated for 9th grade students with an advanced English level. Its aims are to introduce students to literary analysis and the terminology appropriate to the academic study of literature through the close reading of different literary genres. This course establishes the foundational skills that students will need throughout high school and university with an emphasis on developing analytical reading skills, academic writing skills, and critical thinking skills. Selected novels, dramas, short stories, and articles will be read and analyzed in terms of theme, purpose, rhetoric, style, character development, plot, setting, and tone and mood. Students will also produce an array of written compositions and learn how to write a literary analysis paper. The Honors

course will move at a faster pace, set higher expectations for the students, and demand more work from them. Prerequisites: TOEFL > 85 or a Lexile score > 1000L.

EN102: Academic Writing I (grade 9)

1 Year – 1.0 Core Credit

This course is designed to reinforce the accuracy of English mechanics for high school English language learners, and to give students a base for the Academic writing skills that will be needed in all high school courses. Students will be actively practicing grammar, speaking, listening, and reading skills so that they are properly prepared to handle the language acquisition demand required by their core and elective classes in ninth grade and beyond. Focus will be on Academic Writing and the skills necessary to effectively communicate through argument and rhetoric. Key skills will include: identification and analysis of rhetorical appeals and devices, proper paragraph structure and incorporation of textual evidence, citation and stylistic formatting, Line of Reasoning analysis, multimedia slide design, basic presentational techniques, and basic source credibility analysis. Prerequisites: None. Must be taking concurrently with English Literature I

EN201: World Literature (grade 10)

1 Year – 1.0 Core Credit

This course focuses on the study of various literary genres by authors of various backgrounds. It is designed to provide students with an overview of texts from all over the world, and expand upon the skills learned in EN101. A balance of non-fiction and fiction texts, including drama, novels, and poetry, will be utilized for literary analysis, comparisons, and evaluation. Through reading, writing, listening and speaking, students will engage with ideas and stories from different regions of the world, and learn to appreciate why all this is still important in their 21st century lives. Projects, presentations, activities, assignments, essays, and exams will be given to help improve students' skills and to assess improvement in their reading, writing, listening and oral communication skills. Prerequisites: Passing grade in English Literature I (C- or higher)

EN202: Academic Writing II (grade 10)

1 Year – 1.0 Core Credit

English 202 aims to help students transition into becoming more independent and skilled writers. Throughout the course students will improve through intensive practice of daily journals, compositions, expository and persuasive essays, creative writing, narratives, and research papers. This course also provides support for the writing assignments required in in any subject that necessitates work written in English. Vocabulary development and grammar lessons are included in the course with a strong focus on the writing process from the initial planning steps through revising and publishing. Focus will be on Academic Writing and the skills necessary to effectively communicate through argument and rhetoric. Key skills will include: practical application of rhetorical appeals and devices, proper paragraph structure and natural incorporation of textual evidence, citation and stylistic formatting, Line of Reasoning analysis and application, advanced multimedia slide design and presentational techniques, in-depth source credibility analysis, and timed writing exercises. Prerequisites: Passing grade in Academic Writing I

EN208: Creative Writing (grade 10-12)

1 Year – 1.0 Elective Credit

This course is designed to help students craft various works of fiction, poetry, and nonfiction. In addition to the in-class writing exercises, there will be creative exercises outside of the class, and group discussions where students will critique each other's writing in a constructive workshop atmosphere. This course develops useful editorial skills that will help students improve their own writing. Through lecture and discussion, we will explore the technique and devices involved in creating fiction, poetry and nonfiction. We will read and discuss the works of many different writers, using their technique and content as a guide for the students own writing. Prerequisites: EN101 passing grade, 70 TOEFL score or higher.

DR201: Dramatic Arts

1 Year – 1.0 Elective Credit

This course will introduce and explore concepts of theatre and performing arts, such as using movement, voice, and emotion to express ideas in scenes and plays. Students will enhance their verbal expression including articulation and pronunciation, as well as teamwork, self-confidence, and reflection skills. These skills will be developed through character and scene study, reflective journalism, and of course, acting! This course is intended for students who want to present, perform, and gain more self confidence in front of an audience – and are not afraid to be open and participate. You will be performing on stage at least once. Passion and interest for stage acting is preferred. This course will introduce students to the basics of theater production. There will be a focus on acting and improvise, but the course will also cover the history of the theater, set design, and other elements of the dramatic arts. Prerequisites: None

EN301: American Literature (grade 11)

1 Year – 1.0 Core Credit

This course is a survey course where students continue to develop and refine their reading comprehension, composition, and critical thinking skills while expanding their vocabulary. Students will be able to identify the prevalent themes and characterizations of American Literature that reflect American history and culture, and will discuss how those themes continue to influence American culture today. Students will develop informative and persuasive writing skills by improving their ability to locate, evaluate, and synthesize information from a variety of sources. This course will require more reading, analysis of literature, and proficient writing skills. Prerequisites: EN201 and EN202 passing grade

EN353 Honors English (grades 10-12)

1 Year – 1.0 Core Credit

This course is a language arts class designed for high school students whose English abilities are comparatively higher than those of their peers. The course further develops the skills of higher-level academic writing and speaking as well as advanced reading ability. Students will engage in collegial academic work through the lenses of, among other themes, discrimination in society and mankind's connection with nature. At the same time, a variety of genres such as novels, short stories, historical speeches and poetry will be explored. This course is considered a pre-AP course focusing on world literature; students will be introduced on a basic level to the AP skills covered in the AP English Language and Literature Exams. Prerequisites: A in previous English class and 90 TOEFL or higher

EN401: British Literature (grade 12)

1 Year – 1.0 Core Credit

This course is a study of language, literature, composition, and oral communication focusing on an exploration of points of view or perspectives across a wide variety of genres in British Literature. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance in literature balanced with non-fiction texts. The course will examine the historical time periods and cultural circumstances surrounding the creation of these pieces of literature in order for students to understand how literature can bring about change. Students will be expected to read and respond to literature, independently, in group discussions and in writing. All facets of language arts - listening, speaking, reading, and writing - will be covered. Prerequisites: EN101, EN201, and EN301 passing grade

EN502: AP English Language and Composition (grades 11-12)

1 Year– 1.0 Core Credit

The AP English Language and Composition course focuses on the development and revision of evidence-based analytic and argumentative writing, the rhetorical analysis of nonfiction texts, and the decisions writers make as they compose and revise. Students

evaluate, synthesize, and cite research to support their arguments. Additionally, they read and analyze rhetorical elements and their effects in nonfiction texts—including images as forms of text—from a range of disciplines and historical periods. Students should be able to read and comprehend college-level texts and write grammatically correct, complete sentences. Prerequisites: B+ or higher in Honors English, 95 TOEFL or higher.

EN501: AP English Literature and Composition (grades 11-12)

1 Year – 1.0 Core Credit

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students engage in close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. Prerequisites: B+ or higher in Honors English, 95 TOEFL or higher

AP Capstone Diploma

CAP501: AP Seminar

1Year – 1.0 core credit

AP Capstone program is composed of two courses. AP Seminar and AP Research. AP Seminar focuses on universal skills that are of importance in all areas of study and many walks of life. These include research skills, analysis skills, collaborative teamwork skills, presentation skills, and the skills needed to form a cohesive and convincing argument. The course is organized around the QUEST framework: (1) Question and Explore, (2) Understand and Analyze, (3) Evaluate Multiple Perspectives, (4) Synthesize Ideas, (5) Team, Transform, and Transmit. The order of the first four of these Big Ideas reflect the course's progression from initial inquiry through analysis and evaluation of existing research on a topic, to synthesizing this research to form a detailed, evidence-based argument. The final Big Idea reflects the course's focus on teamwork and communication. Prerequisites: Interview with Capstone teachers, 95 TOEFL score and above

CAP502: AP Research

1 Year – 1.0 core credit

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000–5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense. Prerequisites: AP Seminar passing grade (both on AP exam and in AP Seminar class), Interview with Capstone teachers, 100 TOEFL score and above

MATH

MA101: Geometry (Grade 9)

1 Year – 1.0 Core Credit

This course studies measurement as an abstract concept, focusing on the relationships among simple objects and how they interact. Students will be exposed to axiomatic systems

and logical thinking to build new proof techniques. Students will focus on simple properties, such as area, perimeter and volume, as well as complex properties like triangle centers, circle/angle/triangle relationships, and more. Technology will play a key role in the course and students should have a laptop with Geogebra software installed. Prerequisites: None

MA204: Algebra II (grade 10)

1 Year – 1.0 Core Credit

Algebra 2 focuses deeply on the concepts and skills that are most essential for college and career success, so mastery of linear relationships is a major focus of this course. In addition to all Algebra concepts, this course helps students to learn some basics ideas about Calculus. This course focuses more on Linear and quadratic functions and equations and Trigonometry are the basic building blocks of many advanced topics in math. Algebra 2 is stream lined to give students the time and space to thoroughly master these concepts and skills. The course emphasizes these essential practices for building math muscle and confidence: (1) Building conceptual understanding, (2) Building procedural fluency, (3) Creating, analyzing, and using mathematical models, and (4) Crafting mathematical arguments. Besides mastery of linear relationships, other major topics covered in this course include basic functions such as: quadratic, radical, exponential, logarithmic, and rational, linear systems, Sequences and series, Introduction to Trigonometry and Conic sections. Prerequisites: Geometry, C grade or higher

MA206: Algebra II Honors

1 Year – 1.0 Core Credit

Algebra 2 Honors is an advanced math class that focuses on the concepts and skills that are most essential for college and career success, so mastery of linear relationships is a major focus of this course. In addition to all Algebra concepts, this course helps students to learn some basics ideas about Statistics. This course focuses more on Linear and quadratic functions and equations, Trigonometry and Statistics are the basic building blocks of many advanced topics in math. This course is stream lined to give students the time and space to thoroughly master these concepts and skills. The course emphasizes these essential practices for building math muscle and confidence: (1) Building conceptual understanding, (2) Building procedural fluency, (3) Creating, analyzing, and using mathematical models, and (4) Crafting mathematical arguments. In Algebra 2 (Honors), students will: work with their peers to build math knowledge, persevering through challenges and making important conceptual connections; use authentic applications of math to model real-world problems; acquire the tools needed for making, testing, refuting, and supporting mathematical arguments. Besides mastery of linear and quadratic relationships, other major topics covered in this course include basic functions such as: radical, exponential, logarithmic, and rational, linear systems, Sequences and series, Conic sections, Central Tendency and Introduction to Trigonometry. Prerequisites: Grade of A in Geometry or equivalent and an inclination toward math. HoD Approval.

MA202: Introduction to Computer science (grade 9-10)

1 Year – 1.0 Elective Credit

This course of Introduction to Computer Science will develop students to acknowledge overall computer science technology, analyze computing and computer network system. In this course we value organization, persistence, creative thinking to resolve computing and network systems through front-end presentation to back-end solutions.

MA205: Introduction to Statistics

1 Year – 1.0 Core Credits

Decisions or predictions are often based on data—numbers in context. These decisions or predictions would be easy if the data always sent a clear message, but the message is often obscured by variability. Statistics provides tools for describing variability in data and for making informed decisions that take it into account. This course builds upon the foundational knowledge of statistics and how to apply them to real-world problems. Topics

will include standard statistical topics such as: data collection, data analysis, the measures of central tendency, standard deviation, combinations and permutations, probability, sampling, and various distributions. Prerequisites: MA204/MA206 (Algebra II).

MA306: Introduction to Engineering

1 Year – 1.0 Elective Credit

This course is meant for grade 12 students who will be taking Mathematics major in their college. This course will be a gateway and introduction to the discipline of engineering as students will be introduced to the design engineering process. Students will be engaged in hands-on activities relating to structural design, architectural design, Auto-CAD, 3D modelling and 3D printing. This course will encourage students to think of solutions to problems presented to them in their activities. This course is modeled after the basics of drafting courses and introduction to engineering courses offered in universities. Prerequisites: MA 353/ MA 351/MA 501/MA 502/ MA 503, (HOD Approval).

MA402: Financial Math **(only available as core credit for Art/Music students)**

1 Year – 1.0 Core Credit

This course is meant for students who will be taking Art/ Music major in their college. Financial Math will explore areas of mathematics that help students understand, predict, and control -as much as we can- our financial world. Topics such as the stock market, business start-ups, banking services, consumer credit, employment, income taxes, independent living, and retirement and budgeting are the framework in which students will explore and master mathematical concepts and skills. The purpose of this course is to provide students with the basic analytic tools they need to understand financial issues and develop sound financial strategies, which can help them to reach their financial goals, both personally and in the business world. The course Financial Mathematics will strengthen and extend students' mathematics skills, particularly their algebra foundations. Prerequisites: MA204/MA205/MA 206, (HOD Approval)

MA351: Precalculus

1 Year – 1.0 Core Credit

In this precalculus class, students build on the knowledge acquired in Algebra II and Geometry. Students will continue to expand their understanding of math concepts through other arithmetical experiences. The goal of this course is to provide students with the necessary mathematical foundations on the various functions such as polynomials, exponential, logarithmic and trigonometric functions. With AP Calculus in mind, functions are presented in one or more of the following ways: analytical (algebraic), numerical, graphical, and verbal. Students will use functions, equations, and limits as tools to express the various mathematical concepts as well as means to analyze, explore, and understand a broad variety of mathematical relationships. In addition to using functions to represent and connect ideas in trigonometry, probability, etc. students also learn to use a symbolic language to model real life situations in our physical world. Prerequisites: MA204/MA206

MA353: AP Precalculus

1 Year – 1.0 Core Credit

In this AP Precalculus class, students build on the knowledge acquired in Algebra 2 and Geometry. Students will continue to expand their understanding of math concepts through other arithmetical experiences. The goal of this course is to provide students with the necessary mathematical foundations for the learning of AP Calculus the following year, including getting a good grip on the various functions such as polynomials, exponential, logarithmic and trigonometric. With AP Calculus in mind, functions are presented in one or more of the following ways: analytical (algebraic), numerical, graphical, and verbal. Students will use functions, equations, and limits as tools to express the various mathematical concepts as well as means to analyze, explore, and understand a broad variety of mathematical relationships. In addition to using functions to represent and connect ideas in trigonometry, probability, etc. students also learn to use a symbolic language to model real

life situations in our physical world. Prerequisites: MA204/MA 206

MA501: AP Calculus AB

1 Year – 1.0 Core Credit

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections among these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. It is expected that students have an exceptional understanding of the topics covered in all previous mathematics courses completed in high school, most importantly precalculus (MA353). Prerequisites: MA 205/MA 204/ MA206/ MA353.

MA502: AP Calculus BC

1 Year – 1.0 Core Credit

AP Calculus BC is roughly equivalent to two semester college calculus courses devoted to topics in differential, integral and infinite series calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections among these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. It is expected that students have an exceptional understanding of the topics covered in all previous mathematics courses completed in high school, most importantly precalculus. Prerequisites: MA353, MA 351 (AP Precalculus), HOD Approval.

MA503: AP Statistics

1 Year – 1.0 Core Credit

The goal of the course is to teach students the major concepts and tools for collecting, analyzing, and drawing conclusion from data. The students will be exposed to the following four broad themes: (1) Exploring data: Describing patterns and departure 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. In this course, students will be exposed to different software in order to investigate statistical concepts. For students to develop their statistical communication skills, they will be required to discuss, as well as present written and oral analyzes of real data on regular basis. It is recommended students have a foundational knowledge of statistics before attempting this course, such as completion of Introduction to Statistics (MA303) or permission from a mathematics teacher. Prerequisites: MA204/MA 205.

MA504: AP Computer Science A

1 Year – 1.0 Elective Credit

This course provides the beginning programmer with a guide to developing applications using the Java programming language. Java is popular among professional programmers because it can be used to build visually interesting graphical user interface (GUI) and Web-based applications. Java also provides an excellent environment for the beginning programmer—a student can quickly build useful programs while learning the basics of structured and object-oriented programming techniques. Prerequisites: MA202 (HOD Approval).

MA505 AP Computer Science Principles

1 Year – 1.0 Elective Credit

This course of Computer Science Principles introduces students to the foundational concepts of science and challenge them to explore how computing and technology impact the world. It also enables students to analyze and create computing programs to solve real problems in real life with Python programming language. In this course we value organization, persistency, creative thinking to solve problems, try to find out the most reasonable and effective methods including workflows, algorithms, and programming structures with computational thinking. The course structure includes the following big ideas Creativity, Abstraction, Data and Information, Algorithms, Programming, The Internet, Global Impact. Prerequisites: MA 202, (HOD Approval)

MA 601: Multivariable Calculus

1 Year – 1.0 Core Credit

Advanced Calculus is the study of differential, integral, and vector calculus for functions of more than one variable. Advanced Calculus is used in the physical sciences, economics, engineering, and computer graphics. Upon completion of this full year course, students will be able to extend differentiation and integration to vector-valued functions, apply vector tools to study curvature, study the motion of a particle along a path, extend the concepts and techniques of differential calculus to functions of several variables. Advanced Calculus is a rigorous course that builds on the skills and concepts students learned in AP Calculus BC. It is equivalent to a third semester of college level calculus. Therefore, this course will receive AP weighting when grades are calculated. It is expected that students have an exceptional understanding of the topics covered in all previous mathematics courses completed in high school, most importantly AP calculus BC. Prerequisites: MA 502/MA 501, (HOD Approval)

P.E.

PE101: P.E. I

1 Year – 1.0 Elective Credit

This course consists of two parts: physical education and health. The physical education part is designed to lead students to an understanding that physical activity contributes to the healthy functioning of body and mind, and is an essential component of a healthy lifestyle. The curriculum encourages students to attempt, learn and reflect on a range of new activities while working to improve their overall well-being. It promotes sportsmanship, teamwork and leadership skills. Students will develop their physical strength, coordination, speed and flexibility. Students are to explore and experiment with techniques, tactics and ways to overcome challenges. The health component focuses on important skills and knowledge about nutrition, physical activity, the dangers of substance use and abuse, building and maintaining healthy relationships, injury prevention and safety, growth and development, sexual reproduction and personal health. The main aims of the course are to promote healthy living and lifestyle choices as well as to assist students in becoming a more health- conscious and responsible global citizen. The material is designed around topics and situations that engage student discussion and motivate students to analyze internal and external influences on their health-related decisions. The course helps students build the skills they need to protect, enhance, and promote their own health and the health of others. Students will be required to read and interpret English text and be able to communicate their thoughts in a methodical way. With the assistance of online resources students will engage in action-based research project work, which not only helps students learn how to learn, but also functions to improve class relations and communication skills.

PE201: P.E. II

1 Year – 1.0 Elective Credit

Students will continue to be taught the core sports by learning both individual and team techniques, equipping them should they want to participate in Athletic teams and compete for our school. Students will improve their development in Invasion Games, Net/Wall Games, Striking/Fielding Games, whilst understanding that a positive learning environment will help

them succeed. Students will learn how to become Sporting role models by encouraging each other and doing peer assessments throughout the year, with all grading rubrics being provided for each unit of study. Students will also continue to study Health and Fitness, covering both the Mental Fitness side to sport, but also Strength Conditioning and Flexibility of their individual bodies and muscles.

PE301: P.E. III

1 Year – 1.0 Elective Credit

Advanced Physical Education classes will focus on team strategies and the development of higher-level knowledge of the core sports. Students will be expected to have knowledge and understanding of the basic techniques already. Individual sporting roles will be given in a team dynamic, whereby the student is required to perform certain tasks or roles. Students will also continue to be equipped to become leaders in sporting environments, whereby they will have the opportunity to help develop and create their own sports ideas. Students will be required to create Skills Videos that can be used in Future PE Lessons.

SCIENCE

SC101: Physical Science（G9）

1 Year- 1.0 Core Credit

This course is designed to provide students with an opportunity to explore disciplinary core ideas of physical science through scientific inquiry, exploration and through complex problem solving. These ideas include the fundamental concepts of Physics and Chemistry. Students also develop understanding of the engineering design process through STEM (Science Technology Engineering and Mathematics) based learning linking their classroom experiences to the broader social, technological and environmental issues of our modern world. The course was designed using the Next Generation Science Standards (NGSS), where it places an emphasis on practical based laboratory investigations, scientific communication and reasoning skills as well as inquiry-based learning which prepare students for future success in the subject area. The students will learn science through the following Disciplinary core ideas: Structure & properties of Matter, Interactions of matter, Chemical reactions, Energy transfer & conservation and Forces & Motion. Students will be engaged with essential science and engineering practices including planning and carrying out investigations, developing and using models, obtaining and communication technical information and engaging in argument from scientific evidence. This course is at a fundamental level and will not be provided to G11/12 students. This course will **not** be considered efficient for AP course prerequisite.

SC201: Biology

1 Year – 1.0 Core Credit

This course will introduce students to the study of biology at the beginning of their course of This course will introduce students to the study of biology at the beginning of their course of study. Biology is the study of living organisms, their origins, how they survive, reproduce, change over time, and interact with each other and their environments. The course will focus deeply in the core areas of ecological systems, evolution, cellular systems, and genetics while actively applying science practices to construct and revise their biological knowledge. The course will provide the basis for more advanced coursework and learning experiences in biological sciences. Central ideas in the biological sciences will be highlighted, with an emphasis on the process of scientific discovery and investigation. Students will learn to synthesize ideas from multiple areas in order develop complex concepts and cooperate with their peers to solve problems as part of a team. Students will have to take responsibility for their learning process and academic success. All standards of assessment and student performance expectations encountered in SC201 follow the Next Generation Science Standards (NGSS), while there is also an emphasis on literacy and mathematical standards in line with the common core standards for science and technical subjects. Prerequisites: B and above in SC101 or equivalent. TOFEL 80+, Lexile 900+ or equivalent**.**

SC251: Honors Biology

1 Year – 1.0 Core Credit

The disciple core ideas of this class include: The interaction of matter and energy in biological systems, the growth and development of organisms, the inheritance and variation of traits in organisms and the unity & diversity of life. This course helps students and teachers prioritize and focus deeply in the core areas, while actively applying science practices to construct and revise their biological knowledge. Students will make meaningful connections between the structures, processes, and interactions that exist across biological systems—from cells to ecological communities. Successful students will be well prepared to progress into an AP Biology or first year college level Biology course. Honors Biology asks students to be active participants in analyzing real-world phenomena and to regularly collaborate with their peers in dialogue, investigations, and problem solving. Within this course, the theories of evolution and inheritance help students see the story of how life has unfolded across Earth's vast history. They provide foundational lenses from which we begin to understand and appreciate the extraordinary diversity of life as well as the unity we see across that life. This course also focuses on the complex and dynamic processes that are required to sustain Earth's biodiversity to build student understanding of the intricate relationships of interdependence between living and nonliving systems. The course is also intended to engage the learner in the ever-increasing impact technology is having on biological science and in turn, the effect this is having on our lives. Students gain exposure to some of the on-going current areas of research in biotechnology, including the ethical issues surrounding this, allowing students to have a well-rounded, informed understanding of both the benefits and shortcomings of the role biotech will play in their future lives. Prerequisites: Above 85% in SC101 and departmental approval, TOFEL 90+, Lexile 1000+ or equivalent.

C302: Chemistry

1 Year – 1.0 Core Credit

This course is designed to develop the fundamental knowledge, skills, and abilities needed in understanding the study of matter as well as preparing students to pursue further studies in chemistry, such as the AP Chemistry course. Foundational topics such as atomic structure, periodicity, chemical bonding, stoichiometry, and chemical reactions will be the main focus. At the end of the course, students will have a good understanding of these concepts while having developed their ability to ask clear questions, use models and representations to explain scientific phenomena, plan and perform experiments, collect detailed observations and quantitative data, use mathematical calculations to solve problems, interpret data, and effectively communicate evidence-based explanations. To be successful in this course students will need to clearly communicate their ideas orally, written, and through various models such as diagrams. They also need to have prior basic knowledge and skills in employing algebraic mathematics to solve problems. Prerequisites: B and above in SC100 or SC102, or equivalent.

SC301: Physics

1 Year – 1.0 Core Credit

Physics is designed to give students a basic understanding of physics laws and how they apply to our daily lives. It is an introductory physics course that covers the fundamental concepts, principles, and history of physics. Mathematical skills in arithmetic, algebra, geometry, trigonometry, and vectors are required for successful completion of this course. Selected topics in physics, kinematics, dynamics, work, power, energy, momentum, heat, light, sound, waves, and electricity will be covered in this course. Students must be able to clearly express their ideas verbally, in writing, and through different models such as diagrams in order to excel in this course. They must also have a foundation of knowledge and skills. Inquiry-based labs will be used to explore various phenomenon and relationships studied throughout the year. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Emphasis is also placed on experimental design, data

analysis, error analysis, and statement justification. Prerequisites: C and above in SC100 or SC102, or equivalent. Successful completion in G9 Math or equivalent, TOFEL 80+, Lexile 900+ or equivalent

SC 351: Honors Physics

1 Year – 1.0 Core Credit

Honors Physics is an advanced, college-preparatory course designed to build upon the foundational concepts and scientific practices introduced in Physical Science. This course delves deeper into the principles of physics, equipping students with the knowledge, skills, and critical thinking abilities necessary for success in introductory college-level physics courses or AP Physics. Through a combination of theoretical exploration and practical application, students will investigate the interactions of matter, energy, and forces, while developing a strong understanding of the connections between science, technology, and society. Students will explore these themes through a rigorous curriculum that integrates hands-on experiments, project-based learning, and real-world problem-solving. The course is designed to foster a deep understanding of physics concepts while encouraging students to apply their knowledge to everyday challenges and technological advancements. Core topics include Dynamics & Kinematics in 1 and 2 Dimensions, Matter and Thermodynamics, Electricity & Magnetism, Optics, Oscillations and Waves, Introduction to Quantum and Nuclear Physics, and Introduction to Astrophysics. All assessments in SC 351 are designed to measure students' mastery of NGSS standards and practices. Instruction and assessments are also aligned with Common Core standards in mathematics and English, ensuring a well-rounded academic experience that integrates critical thinking, problem-solving, and effective communication. This course places a strong emphasis on practical physics, with project-based components integrated into various modules. Students will engage in real-world applications of physics, fostering a deeper appreciation for the role of physics in technological innovation and societal progress. SC 351 is designed to prepare students for the rigors of college-level physics and STEM-related fields. By the end of the course, students will have developed the analytical, mathematical, and scientific skills necessary to excel in higher education and beyond. Mathematical Requirements: A strong foundation in mathematics is essential for success in this course. Students are expected to be proficient in arithmetic, algebra, geometry, trigonometry, and vector analysis. Additionally, the ability to follow and understand mathematical proofs and derivations is required. Prerequisites: A in SC101 and departmental approval, TOFEL ~90, Lexile 1000+.

SC303: Earth and Space Science

1 Year – 1.0 Core Credit

In this engaging and comprehensive course, students will explore the dynamic and interconnected systems that shape our planet and the universe. Earth and Space Science delves into five key areas: Space Systems, Earth Systems, Weather and Climate, History of the Earth, and Human Sustainability. Through a blend of interactive lessons, hands-on laboratory experiments, virtual simulations, and collaborative activities, students will gain a deep understanding of the scientific principles that govern Earth and space. The course is structured around Disciplinary Core Ideas, Essential Knowledge, and Performance Expectations, all of which are aligned with the Next Generation Science Standards (NGSS) for high school science. Over the course of two semesters (Semester 1 and Semester 2), students will engage with rich multimedia content, including detailed animations, a comprehensive reference book, and virtual labs that bring complex concepts to life. This course has a strong emphasis on scientific practices. Students will integrate eight essential scientific skills into their daily learning, assignments, and assessments. By the end of the course, students will not only master the core concepts of Earth and Space Science but also develop critical thinking, problem-solving, and collaborative skills that are essential for success in future scientific endeavors and a requirement to enroll into AP Environmental Science. Key Features of the Course: (1) Interactive Online Applications: Engaging animations and multimedia content to simplify complex topics; (2) Hands-On Labs: Practical experiments to reinforce theoretical knowledge; (3) Virtual Laboratories: Simulations to explore phenomena that cannot be observed in a traditional lab setting; (4)

Collaborative Activities: Group projects and discussions to foster teamwork and communication; and (5) NGSS-Aligned Curriculum: Designed to meet the rigorous standards of modern science education. This course is ideal for students who are preparing to take AP Environmental Science, are curious about the natural world, passionate about science, and eager to understand the forces that shape our planet and the universe. Prerequisites: B and above in SC201, 301 or equivalent.

SC304: Anatomy and Physiology

1 Year – 1.0 Core Credit

This course is suited for students who have successfully earned a credit in SC 201 and have a special interest in medical science, veterinary, or developmental & cell biology. The course is designed to deepen their understanding of the structure and function of the systems of the human body while gaining an appreciation of the interdependence of internal body systems, including integumentary system, skeletal and connective system, respiratory system, cardiovascular system, nerve system, immune system, digestive system, urinary system and reproductive system. Students will be engaged in problem solving and critical thinking relating to clinical applications of the subject. This course is ideal for those interested in careers in sports science & medicine, clinical sciences and animal sciences. The human body will be covered by organ-system, including homeostasis and synergy amongst other organ-systems while students will also have the unique opportunity to explore and compare the anatomical features of different animals. All standards of assessment and student performance expectations encountered in SC307 follow the Next Generation Science Standards (NGSS), while there is also an emphasis on literacy and mathematical standards in line with the common core standards for science and technical subjects. Prerequisites: A in SC101 or B and above in SC201.

SC306: Forensic Science

1 Year – 1.0 Core Credit | Grades 10-12

Forensic Science bridges the realms of chemistry, physics, and biology with criminal and civil law, equipping students to analyze evidence—from fingerprints and blood spatter to digital traces—that shapes modern justice systems. This lab-driven course immerses learners in real-world applications, transforming scientific theory into investigative practice through hands-on experimentation and critical analysis. Designed as a dynamic exploration of forensic methods, the curriculum emphasizes active learning through crime scene simulations, case studies, and digital investigations. Students master evidence collection, preservation, and laboratory techniques while adhering to strict chain-of-custody protocols. Key scientific disciplines—including biology, chemistry, physics, and environmental science—converge as learners analyze DNA, toxins, ballistics, and trace materials. Safety and ethics are foundational to all activities, with rigorous training in risk management and ethical decision-making. Core Pillars of Study include: (1) Crime Scene Investigation: Evidence documentation, chain of custody, and forensic photography; (2) Biological & Chemical Analysis: DNA profiling, toxicology, blood pattern analysis, and arson investigation; (3) Digital & Technological Forensics: Cybersecurity principles, biometrics, and AI-driven data analysis; (4) Legal & Ethical Frameworks: Courtroom testimony, privacy laws, and ethical dilemmas in forensic practice. Beyond technical expertise, the course cultivates 21st-century skills: collaborative problem-solving, data literacy, and STEM-driven design thinking. Students dissect complex scenarios, linking scientific rigor to societal challenges like cybercrime and environmental forensics. By integrating engineering principles and technology, the program highlights science as a tool for inquiry—transforming classrooms into hubs of innovation. This course is ideal for curious minds passionate about logical reasoning and interdisciplinary science, this course prepares learners for careers in law enforcement, laboratory research, or public policy. Prerequisites: Successful completion in both SC101 or completion of one course from SC201, SC302 or equivalent courses

SC501: AP Physics 1 (G10-12)

1 Year – 1.0 Core Credit

AP Physics 1 is an algebra-based, introductory college-level physics course. Students cultivate their understanding of physics through inquiry-based investigations as they explore concepts on kinematics, dynamics, work, power, energy, momentum, simple harmonic motion, torque, and rotational motion. The course requires excellent mathematical skills and students should be familiar with the rules of algebra and trigonometry. This course will also require students to spend extensive time reading and writing about physics. Lab work is integral to the full understanding of the concepts in this course. Inquiry-based labs will be used to explore various phenomenon and relationships studied throughout the year. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. Emphasis is also placed on experimental design, data analysis, error analysis, and statement justification. At the end of the course, students will take the AP Physics 1 Exam, which will test their knowledge of both the concepts taught in the classroom and their use of the correct formulas. Mathematical Requirements**:** A strong foundation in mathematics is essential for success in this course. Students are expected to be proficient in arithmetic, algebra, geometry, trigonometry, and vector analysis. Additionally, the ability to follow and understand mathematical proofs and derivations is required. It is recommended that students are taking or have taken Algebra 2 or higher. Prerequisites: "A" grade in Physics SC301 or departmental Approval, TOFEL 90+, Lexile 1000+ or equivalent.

SC502: AP Biology (G11-12)

1 Year – 1.0 Core Credit

In AP Biology, the spiral of big idea within the AP biology curriculum framework has been a major goal in this course. Combining the crosscutting concepts (Four big ideas) and the application of multiple areas of knowledge and theory (STEAM) to analysis and solve a real word problem has been the direction of our future education. The four "Big Ideas," which encompass core scientific principles, theories, and processes that cut across traditional boundaries and provide a broad way of thinking about living organisms and biological systems. The following are Big Ideas: The process of evolution explains the diversity and unity of life. Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis. Living systems store, retrieve, transmit, and respond to information essential to life processes. Biological systems interact, and these systems and their interactions possess complex properties. AP course is intended to be taken by students demonstrated a high aptitude for the essential science practices associated with Biology. AP Biology is equivalent of an introductory college-level biology course which prepare student for the AP exam, and at the same time to elevate student's understanding of biology along with other area of science and bioengineering. In the AP biology course provided, students will gain a deep conceptual understanding of biological knowledge as well as have opportunities to apply their knowledge into science practices through inquiry-based activities and laboratory investigations. Students will develop their critical thinking and problem-solving skills through a serious of activities, hands on labs, experimental designs and assessments. Over 25% of the instructional time will be lab investigation based active learning, which include but not limited to researching journal papers, hands-on labs, and experimental/engineering designs. Labs emphasize development and testing of the hypothesis, collection, analysis and presentation of data, as well as discussion of results to discover unanswered questions about the particular topics addressed. The student-directed and inquiry-based laboratory investigations used throughout the course enable students to apply the six science practices as defined in the Curriculum Framework. Mathematical Requirements**:** Completion or concurrently taking MA305 Introduction to Statistics or MA505 AP statistics is strongly recommended. Prerequisites**:** Above 85% in SC201/251 or departmental approval; TOFEL 90+, Lexile 1200+ or equivalent.

SC503: AP Physics 2

1 Year – 1.0 Core Credit | Grades 11-12

The AP Physics 2 course has been designed by the College Board as a course equivalent to

an algebra-based college-level physics class. Students will cultivate their understanding of physics through classroom study and inquiry-based laboratory work as they explore concepts on fluids, thermodynamics, electrical force, field, and potential; electric circuits; magnetism and electromagnetic induction; optics, and quantum, atomic, and nuclear physics. Problem solving techniques and strategies are fined tuned throughout the year. The emphasis on theoretical topics, critical thinking and problem solving makes this class challenging. Conceptual understanding of the material is a requirement for success. Students must be strong in both math and science to be successful in this course. Students will be expected to write justifications and explanations of physics concepts. At the end of the course, students will take the AP Physics 2 Exam, which will test their knowledge of both the concepts taught in the classroom and their use of the correct formulas. Mathematical Requirements: A strong foundation in mathematics is essential for success in this course. Students are expected to be proficient in arithmetic, algebra, geometry, trigonometry, and vector analysis. Additionally, the ability to follow and understand mathematical proofs and derivations is required. Prerequisites: "B" grade or higher in AP Physics or a comparable introductory physics class. Successful completion of or taking concurrently precalculus or the equivalent. TOFEL 85+, Lexile 1000+ or equivalent.

SC504: AP Chemistry

1 Year – 1.0 Core Credit

The AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. In this course students cultivate their understanding of chemistry through inquiry-based investigations. The AP Chemistry course and exam are organized around nine units which explore topics such as: atomic and molecular structure and properties, intermolecular forces and properties, chemical reactions, kinetics, thermodynamics, equilibrium, and acids and bases. About 25 percent of the instructional time is used to engage students in hands-on lab investigations where students are encouraged to ask questions, make observations and predictions, design experiments, analyze data, and construct evidence-based arguments. To succeed in this course, students will need to cultivate good scientific practices including developing clear and detailed scientific questions and methods; representing data and scientific phenomena with appropriate means such as graphs, diagrams, or models; describing, analyzing, and interpreting different representations; solving problems using mathematical means; and developing a clear and logical scientific explanation or argument. Prerequisites: Above 85% in SC302 Chemistry. Departmental Approval. TOFEL 90+, Lexile 1000+ or equivalent.

SC505: AP Environmental Science (G11-12)

1 Year – 1.0 Core Credit

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography. Energy transfer, Interactions between Earth systems, Interactions between different species and the environment, and Sustainability are the big ideas that serve as the foundation of the course, enabling students to create meaningful connections among concepts and develop deeper conceptual understanding. To successfully finish this course, the students should be able to explain environmental concepts; and analyze visual representations, sources of information, and research studies. It is also required for the students to apply mathematical skills in analyzing and interpreting quantitative data represented in tables, charts, and graphs. Lastly, the students should be able to propose and justify solutions to environmental problems. Prerequisites: “B" or higher in one G10 level science course (SC201, SC302 or

SC301).

SC506: AP Physics C (G11-12)

1 Year – 1.0 Core Credit

The calculus-based AP Physics C course is a college-level physics course. There are two sections. Mechanics and Electricity and magnetism, in this course and they are each a one-semester-long introductory physics course. Kinematics, Newton's laws of motion, work, energy, and power, linear momentum, circular motion and rotation, oscillations, and gravitation are all covered in Physics C: Mechanics. In AP Physics C: Electricity and Magnetism course, Electrostatics, Conductors, Capacitors, Dielectrics, Electric Circuits, Magnetic Fields and Electromagnetism are all covered. This course should include a hands-on laboratory section, similar to that of a semester-long introductory college-level physics lab. Students should devote at least 25% of their instructional time to hands-on laboratory work. Through analyzing and debating the physical phenomenon studied in class with peers, as well as planning and performing inquiry-based laboratory experiments to solve problems through first-hand observations, data collection, analysis, and interpretation, students can learn reasoning skills used by physicists. It is essential to have a conceptual understanding of the content in order to succeed. To excel in this course, students must have good math (calculus) and science skills. Students will be expected to compose physics principle justifications and explanations. Students will be prepared to take the AP Physics C (Mechanics and Electricity & Magnetism) Exam at the end of the course, which will assess their understanding of both the concepts learned in class and their ability to apply the correct formulas. Mathematical Requirements: A strong foundation in mathematics is essential for success in this course. Students are expected to be proficient in arithmetic, algebra, geometry, trigonometry, and vector analysis. Additionally, the ability to follow and understand mathematical proofs and derivations is required and should have taken or be concurrently taking AP Calculus. Prerequisites: "B" grade or higher in AP Physics 2 or a comparable introductory physics class. Students should have taken or be concurrently taking AP Calculus.

SOCIAL STUDIES

SS200: World History I (Paleolithic through Middle Ages)

1 Year – 1.0 Core Credit

Social Studies 200 focuses on the study of ancient world history and geography. Since it is a knowledge-based and skills-based course, this class aims to help students develop an understanding, appreciation and interest in modern world history and geography and how they have greatly influenced our current world. Through a variety of hands-on learning strategies and activities, students will gain the skills necessary for them to understand and appreciate the knowledge they will gain from the content. This class particularly helps students navigate difficult concepts, understand key terms and how to use them correctly, identify geographical concepts when reading maps, create and interpret timelines, interpret charts and graphs, analyze document-based texts for primary and secondary sources, conduct surveys, interpret data and produce academic research essays.

SS204: World History I Honors

1 Year – 1.0 Core Credits

Social Studies 204 is an advanced Honors class that focuses on the study of ancient world history and geography. Since it is a knowledge-based and skills-based course, this class aims to help students develop an understanding, appreciation and interest in modern world history and geography and how they have greatly influenced our current world. Through a variety of hands-on learning strategies and activities, students will gain the skills necessary for them to understand and appreciate the knowledge they will gain from the content. This class particularly helps students navigate difficult concepts, understand key terms and how to use them correctly, identify geographical concepts when reading maps, create and

interpret timelines, interpret charts and graphs, analyze document-based texts for primary and secondary sources, conduct surveys, interpret data and produce academic research essays. Expectations and academic rigor are increased in this Honors course. Prerequisites: TOEFL > 85, Lexile > 1000.

SS201: World History II (Renaissance through World War II)

1 Year – 1.0 Core Credit

Social Studies 201 focuses on the study of modern world history and geography. Since it is a knowledge-based and skills-based course, this class aims to help students develop an understanding, appreciation and interest in modern world history and geography and how they have greatly influenced our current world. Through a variety of hands-on learning strategies and activities, students will gain the skills necessary for them to understand and appreciate the knowledge they will gain from the content. This class particularly helps students navigate difficult concepts, understand key terms and how to use them correctly, identify geographical concepts when reading maps, create and interpret timelines, interpret charts and graphs, analyze document-based texts for primary and secondary sources, conduct surveys, interpret data and produce academic research essays

SS205: Psychology

1 Year – 1.0 Core Credit

The purpose of this course is to introduce students to core concepts and content areas in the field of psychology, as well as methods of inquiry and evaluation. Students will master meaningful content and also develop critical thinking and enhance socio-emotional skills that will provide the foundation to navigate a variety of real-word problems. Psychology is a valuable subject irrespective of whether students will major in this field at college level as every facet of our lives can be understood from a psychological viewpoint and as such enhances our understanding of interpersonal relationships and ourselves. For students wishing to take AP Psychology, SS205 is a prerequisite.

SS301: U.S. History

1 Year – 1.0 Core Credit

This course covers the major periods of American civilization, providing an overview of pre-colonization, colonization and settlement, the Revolution and early nationhood, and expansion and reform. The topics chronicled in detail include development and industrialization, the reform era, World War II, the Cold War, and relevant topics for the present day. In addition, previously practiced historical thinking and analysis skills as well as writing skills will be reinforced, and students will practice skills such as utilizing the analysis of primary documents to evaluate historical claims. Prerequisites: SS200, SS251

SS304: Sociology/Philosophy

1 Year – 1.0 Elective Credit

This elective course consists of two parts: Sociology and Philosophy. In the Sociology part, it studies human society and social behavior. Positive human relationships are an essential part of a civilized society, and how we interact with each other is important so that we can find answers to questions and solve problems in our world. Sociology teaches us to look at life in a scientific, systematic way. The way that we view the world comes from what we learn in our everyday activities. The values, beliefs, lifestyles of those around us, as well as historic events help to mold us into unique individuals who have varied outlooks on social reality. This course deals with the social atmosphere that helps to make us who we are and determines how we behave. Sociology will cover topics such as culture, violence, deviance, social control, socialization and personality, group behavior, social class, and social institutions. It focuses on looking at people and their ways of life as well as studying social trends, cultural changes, human development, social institutions, and collective behavior.

SS401: Economics

1 Year – 1.0 Core Credit

This economics course will focus on major economic concepts and theories of macroeconomics and microeconomics and give potential students valuable insight into making choices for their AP courses. A significant focus is placed on how basic economic concepts such as supply, demand, scarcity and the role of the public and private sectors affect the national and world's economies. The course requires note taking, interpretation of graphs, tables, maps, research, oral presentations, the use of primary/secondary materials, and the use of technology (computers and internet). The students will work cooperatively, role-play, and complete simulations to learn the importance of teamwork; and complete projects that enable them to work independently. Course Objectives include: (1) Students will be able to apply economic analysis to a variety of real-world situations to improve their personal understanding of how the private and public financial sectors operate; (2) Students will prepare for their future educational and career goals by practicing and mastering financial skills for life-long success; (3) Students will develop the competence to contribute to discussions on current economic issues and decisions that should be made to shape and strengthen local, national and regional institutions; (4) Students will demonstrate an awareness of the fact that economists hold differing views on some economic issues. The course requires note taking, interpretation of graphs, tables, maps, editorial cartoons, research, oral presentations, the use of primary/secondary materials, and the use of technology (computers and internet). The students will work cooperatively, role-play, and complete simulations to learn the importance of teamwork; plus, complete projects that enable them to work independently.

SS403: History through Film

1 Year – 1.0 Elective Credit

History through Film is designed to nurture an interest in history by showing how it influences the artistic medium of film. It is also designed to help students develop research skills as they will be expected to do research projects tied to each film we watch in class that focuses on elements of plot, historical accuracy, and liberties taken by film makers and why they may have taken them. These films may present content in four possible ways: (1) As a Factual Record: Film is used to dramatize events; (2) To Convey Atmosphere: The use of fiction to convey a sense of past lifestyles, values, and beliefs; (3) Analogy: An historical event is used to point out or explain contemporary motives or actions, particularly when the event is controversial; (4) A lesson in Historiography: Because the dramatic form used in films requires consistent and relatively simple motivational interpretations, students can often learn how the time period in which the film was made interpreted historical personalities and events. Prerequisites: SS200/SS251

SS501: AP U.S. History (grade 11)

1 Year – 1.0 Core Credit

United States History, Advanced Placement is a course based on the content established by the College Board. AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. The course follows a chronological framework from 1492 to the present and focuses on multiple causation and change in United States history over time. A variety of historical themes are examined in order to place the history of the United States into larger analytical contexts. Students are expected to analyze and interpret primary sources and develop awareness of multiple interpretations of historical issues in secondary sources. Historical events and issues in U.S. history are to be examined from multiple perspectives. A comprehensive description of this course can be the College Board AP Central Course Description web page at: http://apcentral.collegeboard.com/apc/public/courses/descriptions/index.html. Prerequisites: Grade of B+ of higher in previous history courses and TOEFL > 90. Departmental Approval.

SS502: AP World History: Modern (grade 10)

1 Year – 1.0 Core Credit

This course focuses on developing students' abilities to think conceptually about world history from approximately 1300 CE to the present, and to 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 a special focus on historical developments and processes that cross multiple regions. Students enrolled in this course are expected to take the AP Exam. Prerequisites: Honors World History, TOEFL > 90, Departmental Approval.

SS503: AP Human Geography

1 Year – 1.0 Core Credit

The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped the human understanding, use, and alteration of Earth's surface. Students learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. Basic essay and writing skills are necessary for this class. Students must be able to keep up with a high volume of reading related to this course. Students enrolled in this course are expected to take the AP Exam. Prerequisites: Lexile of 1000 or greater, Departmental Approval

SS504-1: AP Microeconomics

1 Year – 1.0 Core Credit

AP Microeconomics is a fast-paced college-level course that focuses on the decision making of individuals, businesses, and the government. Students will study a variety of economic theories and analyze their practical application in the real world. Microeconomics focuses on the supply and demand for products, the labor markets, and the role competition plays in a free market system. This class will prepare you for college and potentially allow you to earn 6 university credits upon passing both AP exams. Extensive math skills are not required; however, the ability to analyze graphs and charts is essential. Student are expected to take the AP exams in May. Prerequisites: Lexile of 1000 +. Departmental Approval

SS504: AP Macroeconomics

1 Year – 1.0 Core Credit

AP Macroeconomics is a fast-paced college-level course that focuses on the decision making of individuals, businesses, and the government. Students will study a variety of economic theories and analyze their practical application in the real world. Macro focuses on the economy as a whole, including economic measures, economic growth, fiscal policy, monetary policy, and international economics. This class will prepare you for college and potentially allows you to earn 6 university credits upon passing the AP exams. Extensive math skills are not required; however, the ability to analyze graphs and charts is essential. Student are expected to take the AP exams in May. Prerequisites: Lexile 1000+. Departmental Approval

SS505: AP Psychology

1 Year – 1.0 Core Credit

The AP Psychology course is designed to introduce students to the systematic and scientific study of behavior and mental processes of human beings and other animals. Satisfactory completion of the requirements of this course and a passing grade on the National AP Exam could earn you college credit in Psychology. This course will be taught as it would be on the college level. An AP course demands extra work and additional time outside the usual high school demands. You will be expected to do a great deal of independent reading, research,

and completion of assignments. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. This course follows the APA guidelines for Advanced Placement Psychology. Prerequisites: TOEFL of 90 or higher, B or higher in SS205.

SS508: AP European History (grade 12)

1 Year – 1.0 Core Credit

In AP European History, students investigate significant events, individuals, developments, and processes from approximately 1450 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 also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world, economic and commercial development, cultural and intellectual development, states and other institutions of power, social organization and development, national and European identity, and technological and scientific innovations. Prerequisites: Departmental Approval