

# Springdale

Preparatory School

Respect • Lifelong Learning • Innovation

# **Upper School**

Course of Study

Academic Year 2024-2025

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Springdale Preparatory School
Upper School Course of Study
Academic Year 2024-2025

# **Our Mission**

Springdale Preparatory School is a co-educational, multicultural boarding and day school for sixth through 12th grades. We welcome local, national, and international students who learn best from a more individualized curriculum. Springdale places students in small classes that peak their interest, with caring instructors who have a passion for their subjects. This gives each individual freedom to explore different pathways to academic excellence. We blend critical and creative thinking, integrity, purpose, and respect for themselves and others into every curriculum. Above all else, we are committed to fostering a diverse community with high academic standards, and a balanced approach to learning.

# **Recommended Course of Studies**

- · 4 years of English
- 4 years of mathematics
- 3 years of a world language
- 3 years of natural and physical sciences
- 3 years of history
- 1.5 years of fine arts
- 1 year of physical education
- .5 year of health
- 1 year of life planning
- 1 year of technology
- 3 years of academic electives
- Senior Research Capstone

# Minimum Requirements

The minimum requirements for receiving a Springdale Preparatory School diploma are:

# Community Service

At least 75 hours of service (See guidelines under Community Service.)

#### Fine Arts

One year of an art-centered course and one year of a performing arts-centered course

# English

Four years of assigned English

#### History and Social Sciences

9th Grade: World History; 10th Grade: U.S. History;

11th Grade: Comparative Government or a Group 3 (IB Individuals & Societies Group) course

#### Mathematics

Four sequential years of math at the high school level (including pre-algebra)

# World Languages

Three successive years of the same language completed in high school (exception for 8th grade exemplar achievement in World Languages)

# Physical Education

One year of physical education taken between freshman and sophomore year. (Club and Team sport opportunities for credit)

#### Science

Three years, of which one is a life science and one is a physical science, following this sequence: Biology, Chemistry, Physics

# Technology

One year of a technology course

# Senior Research Capstone

A required course for all seniors, except for those who are participating in the IB DP program, to polish their applicable research skills in preparation for college-level writing and publishing

# Course Load

The required minimum for each semester's work is five academic courses unless special circumstances arise (must be approved by Director of Curriculum and Head of School). Many students elect to take additional academic, fine arts, or elective courses. Students may have only one free period per semester; any additional free periods must be approved in advance by the Head of School.

SPS encourages all students to pursue their individual passions while exploring our diverse curriculum. Students who persevere through our curriculum are well positioned to gain admission to many colleges and universities. Highly selective colleges will expect students to explore beyond the minimum requirements for a diploma.

# **Course Length**

Except where noted, most courses are yearlong (two semesters).

# **Course Cancellation**

At the school's discretion, any course in which the enrollment is fewer than five students may be canceled, except in the case of an independent study course.

# **Independent Study Program**

If a student in their junior and senior years has a particular interest in a subject that is not covered in our curriculum, they may apply to complete an independent study. An independent study course is the equivalent of a regular academic course with the same level of rigor expected.

Each Independent Study course will be limited to a maximum of three students. For Independent Study courses to appear on an SPS transcript, the Independent Study course must be supervised by a member of the SPS faculty and approved in advance by the Director of Curriculum and the Head of School.

To be approved for an Independent Study, a student must submit an application (available in the Director of Student Service's office) that clearly and thoroughly describes the work to be completed, the resources necessary for completion of the work, the scheduled meeting times between student and faculty supervisor, and an explanation of how student work will be assessed. Copies of all assessments given in an Independent Study will be filed with the Director of Curriculum. Proposals for independent study will not be accepted after the deadline for adding a course.

# **Dual Enrollment**

Dual Enrollment opportunities allow SPS Upper School students to enroll in college-level courses during their senior year, unless otherwise approved. To be eligible for dual enrollment opportunities, students must maintain a minimum GPA of 3.5 and are on track to meet minimum requirements for graduation. Students may enroll in college-level courses at community college or online and may select introductory college coursework in humanities, English, math, social studies, and science subject areas. Students are responsible for acceptance into a post-secondary academic institution to be eligible for this program.

Students seeking to participate in a dual enrollment program should contact the Director of Student Services for more information regarding eligibility and the enrollment process. To be approved for dual enrollment, a student must submit an application request to SPS (available in the Director of Student Service's office) and must be approved in advanced by the Head of School. **The student's family is responsible for all fees associated with the application, enrollment, and course fees with the participating college or university.** 

# **Community Service**

Students must complete 75 hours of approved community service. At least 20 hours must be completed by the beginning of junior year. The 75-hour community-service requirement must be completed by and submitted to the Director of Student Services no later than May 10 of their senior year.

# Honors Level (HON) Courses

Honors (HON) Level courses express the most challenging level of coursework offered at SPS aside from IB and AP courses. HON courses examine material at the highest levels with sustained intellectual independence. These classes often involve increased expectations for time spent out of class.

# **Advance Placement (AP) Courses**

Advance Placement courses are designed to give students the experience of an intro-level college course while still in Upper School. AP courses are academically challenging, requiring students to demonstrate excellent study habits, work ethic, time management, and self-sufficiency. Enrollment in AP courses requires the approval of the department and the designated grade in the prerequisite course. All students entering grades 10, 11, and 12 may be considered for enrollment in AP-level courses. **The student's family pays the fee associated with the AP examination.** 

# International Baccalaureate (IB) Diploma Programme

The International Baccalaureate curriculum prepares students for the real-world challenges of college. Students may take individual IB classes and earn a certificate of completion for each class (with a score of 4 or higher) or may be considered for the IB diploma. To complete the requirements for the IB Diploma, students must take two years of study during their 11th and 12th grade years. These include the IB core and one course from each of the six subject groups.

The IB Core consists of three courses: Theory of Knowledge, Extended Essay, and Community, Action, and Service (CAS). These courses require students to write a 4,000-word Extended Essay, complete and present a project for Theory of Knowledge, and complete Creativity, Action, and Service reflections and service project. The six-subject groups are Language A (1), Language B (2), Individuals & Societies (3), Experimental Sciences (4), Mathematics (5), and The Arts (6) and are either standard level (SL: 150 hours) or higher level (HL: 240 hours) classes. Students earn points for IB exams and IB assessments. A minimum of 24 points is needed to earn a diploma, with a maximum of 45 points available. Students must take one course from each of the six areas but may opt to take an extra course from 1-5 instead of a group 6 course. Students must take 3 SL and 3 HL courses, or 4 HL and 2 SL classes.

The IB program is an academically challenging program that prepares students for success in higher education and beyond. In addition to the rigorous academic curriculum, students must demonstrate excellent study habits, work ethic, time management, and self-sufficiency. Due to the academic rigor of the IB curriculum, students may only be admitted into an IB Diploma Programme or enroll in IB level courses with the approval of the IB Administrator. Students entering grade 11 will be considered for participation in the IB program. **The student's family pays the fee associated with the IB examination.** 

# Media Center - Information and Literacy Skills

The Springdale Media Center program supports the curricular mission of SPS by providing print and online collections, managing welcoming media spaces, encouraging exploration via interactions with media, supporting independent reading and individualized learning, and teaching information skills. In the Upper School, the librarian teaches students effective research skills and information-finding strategies, including efficient searching, critical evaluation of sources, and ethical and responsible use of intellectual property. This occurs through project planning with other departments, co-teaching

within classrooms, stand-alone lessons, reference interactions, and individualized instruction. The library is available for reference, research, and readers' advisory for the entire community, encouraging lifelong habits of library use to prepare our students for life beyond SPS.

# Senior Research Seminar and Practicum

This full-year leadership course is designed to create a dialogic space where seniors can take active roles in learning. Together the students will reflect critically on the cultural forces at work in their lives and lay claim to their own roles in shaping that culture. Through reading, discussion, and research, students will raise questions, uncover, and develop personal responses. Further, students will continue to hone their critical faculties in reading, writing, listening, and speaking. Assignments are thoughtful and innovative, encouraging critical thinking. Students will work in groups, pairs and individually depending on the subject matter. The course begins with a global or international perspective and, like a camera lens, zooms into national, local, school, family, and personal perspectives. Second semester will begin with public speaking. This is a required class for all seniors, except for those who are participating in the IB DP program.

# **English**

Graduation Requirement: Four years of assigned English

#### World Literature

(Grade 9)

This course is an introduction to literary genres and provides students with an exposure to the foundations of English language and literature of the world. Students will continue to develop vocabulary and apply effective reading strategies to a wide variety of literary and informational texts; learn about universal themes and symbols common to literary works including the novel, short story, poetry, drama, and nonfiction; establish effective writing and research habits; and refine language skills as they apply to writing, listening, speaking, and viewing.

#### Honors World Literature

(Grade 9)

Prerequisites: Recommendation by Department

This honors world literature course is designed to challenge students and prepare them for a postsecondary experience. Students will build upon reading, writing, and critical thinking skills through an intensive study of a variety of selected world literature. This course provides a review of grammar, mechanics, vocabulary, and usage as needed and focuses on the development of complex thought processes, independence in learning, and creative expression through discussion and frequent writing opportunities.

#### American Literature

(Grade 10)

This course is a survey of American Literature from the Colonial Period to the Modern Era. It builds upon the World Literature course through a focus on the acquisition of higher-level reading, writing, speaking, listening, and language skills. Students will read a variety of informational and literary texts in all genres and modes of discourse. The study of these authors, and other thinkers and artists, serves as a springboard for seminar-style discussions, reflective and expository writing, and further development of critical and creative thinking skills. While expository writing is the focus in American literature, students will also demonstrate competency in argumentative and narrative genres. They will also engage in research, and the writing process. Vocabulary and grammar are emphasized, both for SAT preparation and for understanding words in their literary contexts.

#### Honors American Literature

(Grade 10)

Prerequisites: Recommendation by Department

This course is an accelerated multi-genre survey of American Literature from the Puritan period to post-modernism. Honors American Literature extends beyond the traditional curriculum in both breadth and depth of study and provides problem-seeking and problem-solving opportunities for students. Students are expected to devote additional time and effort to Honors work and, in turn,

have greater opportunities for discovering what makes each text quintessentially American through exploring a variety of genres including novels, dramas, essays, poems, and short stories. This will afford students the opportunity to participate in seminar-style discussions, reflective and expository writing, research and further develop critical analysis and application of these skills.

# AP Language and Composition

(Grade 11 & 12)

Prerequisites: Open to students in grades 11 or 12; Requires teacher recommendation and successful completion of Honors American Literature

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.

#### **British Literature**

(Grades 11 & 12)

Prerequisite: Successful completion of American Literature and World Literature

This course is a survey of British Literature from the Anglo-Saxon period to the present. It builds upon the American Literature and Composition course and focuses on literature and informational texts, writing modes and genres, and essential conventions for reading, writing, and speaking. Students will develop an understanding of chronological context and the relevance of period structures in British literature. They will also develop an understanding of the ways the period of literature affects its structure and how the chronology of a work affects its meaning. Students will encounter a variety of informational and literary texts and read texts in all genres and modes of discourse. While the continued focus is expository writing in British literature, students will also demonstrate competency in argumentative and narrative genres. Students will engage in research, timed writing, and the writing process as well as develop an understanding of the impact that technology has on writing. Instruction in language conventions will occur within the context of reading, writing, and speaking, rather than in isolation. Students will also demonstrate an understanding of speaking and listening skills for a variety of purposes.

#### Honors British Literature

(Grades 11 & 12)

Prerequisite: Successful completion of Honors American Literature or American Literature AND teacher recommendation

This course is designed to give students a working knowledge of British Literature, from the Anglo-Saxon period through the Modern Era. It is also meant to prepare students for college-level reading and writing. To do this, we will read and analyze texts from a variety of literary periods and texts that speak to a variety of experiences. This allows students to be exposed to new ideas and build their literary analysis skills. Students will write, discuss, and reflect to build analytical, communication, and writ-

ing skills, and in doing so, explore and challenge ideas presented in these literary works. This is achieved through literature, dramatic works, journaling, Socratic seminars, informal discussions, and formal writing.

# **English Composition and Literature**

(Grade 11 & 12)

Prerequisites: Open to students in grades 11 and 12 only

English Composition and Literature is a rigorous course in critical reading and writing designed to help students develop and refine their ability to think critically, to organize their thoughts, and to express ideas clearly and effectively. The course will focus on the various modes of expository writing, such as process, description, narration, comparison, cause/effect, and analysis, and give significant focus to argumentation. Students will be introduced to documentation, and numerous in-class assignments will be required in addition to extended essays written outside of class. A cumulative research paper is required in the fourth quarter.

# AP Literature and Composition

(Grade 12)

Prerequisite: Open to students in grade 12 only: Requires teacher recommendation and successful completion of AP Language and Composition or Honors British Literature

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.

#### AP Seminar

(Grade 10 &11)

The AP Seminar course is a fundamental part of the AP Capstone Program, providing high school students with essential skills such as critical thinking, research, collaboration, and communication. Students learn to analyze various sources, conduct research, work in teams, and present their findings effectively. The course emphasizes inquiry-based learning and culminates in a performance task where students present and defend their research. Successful completion may result in college credit and prepares students for the subsequent AP Research course.

#### AP Research

(Grade 11 & 12)

The AP Research course, part of the AP Capstone Program, enables high school students to conduct independent research with guidance from mentors. Students learn inquiry methods, research skills, ethical practices, academic writing, and presentation techniques. They produce a substantial academic paper

and orally defend their research findings. The course fosters critical thinking and communication skills necessary for college and beyond, potentially earning college credit or advanced placement.

# IB English Language and Literature Year I (HL/SL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator

This first year of the course aims to develop students' textual analysis skills and the understanding that texts, both literary and non-literary, can be seen as autonomous yet simultaneously related to culturally-determined reading practices. The course develops an understanding of how language, culture, and context determine the ways in which meaning is constructed in texts. It also focuses on how to think critically about the different interactions between text, audience, and purpose.

# IB English Language and Literature Year II (HL/SL)

(Grade 12)

Prerequisite: Successful completion of IB English Language and Literature Year I

This course completes the requirements for both the high and standard level IB English Language and Literature exam. The aim of the course is the development of an understanding of "critical literacy" in students. Students produce a critical response evaluating aspects of text, context, and meaning, and demonstrate an ability to write a balanced, comparative analysis.

# **English Elective Courses**

# Mythology

(.5 credit)

Students explore myths from various cultures and participate in collaborative learning activities to understand how myths are reflected in the literature, customs, architecture, and religion of ancient and modern cultures. Students will continue to develop reading and writing skills as well as critical and creative thinking skills and strategies. This course may not be used to meet the state graduation requirements in English.

# **Public Speaking**

(.5 credit)

Public Speaking offers student activities and experiences that help to develop skills in oral communication, critical thinking, accessing information, and writing. Students understand and use the stages of speaking for a variety of purposes, including personal, career, and social. Emphasis is on achieving clarity and confidence when speaking to others. This course may not be used to meet the state graduation requirements in English.

#### The Graphic Novel

(.5 credit)

This course is designed to introduce students to graphic novels as literary texts suitable for critical analysis. Students will encounter graphic novels of literary merit representing multiple genres such as memoir, fiction, historical narrative, and autobiography. Reading and discussion of texts will focus on both the content of the literature (the story) and the craft (the use of formal conventions in both writing and art). Students will use their knowledge of these formal conventions to engage in class discussions and respond to the text in informal and formal written critical analysis.

# Mystery and Suspense

(.5 credit)

Students examine the history and structure of mystery fiction, the suspense story, the detective story, and the adventure mystery. Students will read mystery and suspense short stories and novels offered through a variety of academic sources. The reading list and focus for this course is expected to vary based on the interest of the students in the class. Students will learn about the distinguishing elements of mystery in literature and how to apply these in creating their own suspense-based stories.

#### Sports in Literature

(.5 credit)

This course will focus on the use of sports in literature. Students will read various short stories, novels and magazine/news articles as well as write opinions about several themes. Themes studied will include leadership and character, current trends, rivalries, definitions of success and failure, jinxes and fate, heroes, coaching ethics, etc.

#### **Creative Writing**

(.5 credit)

Creative writing is an elective which shares elements with English and literature classes in focused and searching discussions of iconic texts. Many class sessions will function as participatory writing workshops for young poets and storytellers. Exploring the elements of good storytelling and the mechanics of good narrative fiction, students will write, brainstorm ideas collaboratively, and craft individual stories based on writing assignments. The course culminates in a final writing project.

#### **English for Academic Purposes I**

This course is designed to assist non-native English speakers in developing the language skills necessary for success in academic environments where English is the primary language of instruction. EAP courses cover reading, writing, listening, and speaking skills relevant to academic contexts, with a focus on comprehension, writing essays and research papers, understanding lectures, and participating in academic discussions. The goal is to prepare students for academic study in English-speaking institutions by improving their language proficiency and familiarity with academic conventions.

## **English for Academic Purposes II**

Prerequisite: Teacher recommendation

This course is designed to assist non-native English speakers in developing the language skills necessary for success in academic environments where English is the primary language of instruction. EAP courses cover reading, writing, listening, and speaking skills relevant to academic contexts, with a focus on comprehension, writing essays and research papers, understanding lectures, and participating in academic discussions. The goal is to prepare students for academic study in English-speaking institutions by improving their language proficiency and familiarity with academic conventions.

#### Debate

(.5 credit)

This course focuses on developing students' critical thinking, public speaking, research, and argumentation skills through formal debate formats. Students learn various debate styles, research techniques, and argumentation strategies. They practice delivering speeches, constructing persuasive arguments, and engaging in rebuttals. Participation in tournaments allows students to apply their skills competitively and receive feedback. The course emphasizes collaboration, teamwork, and analytical thinking, preparing students for academic, professional, and civic endeavors.

#### Poetry

(.5 credit)

This course introduces students to the art of poetry through reading, analysis, interpretation, and creative expression. Students study various poetic forms, techniques, and literary devices, and analyze poems from different time periods and cultures. They engage in creative writing exercises, workshops, and performances to develop their own poetic voice and style. The course fosters critical thinking, creativity, and appreciation for the power of language, preparing students for further study in literature and enhancing their communication skills.

# **Technical Writing**

(.5 credit)

This technical writing course teaches students how to effectively communicate complex information in professional settings. Students learn about document design, clarity, audience analysis, and various genres of technical writing such as reports and manuals. Through collaborative projects and technology tools, students develop practical skills in written communication, critical thinking, and problem-solving, preparing them for academic and professional success in diverse fields.

# **History and Social Sciences**

Graduation Requirement: Modern World History and U.S. History must be completed with a passing grade. Three credits are required to graduate.

#### Modern World History

(Grade 9)

In this exploration of World History from 1877 through today, students will dive into the events, concepts, and interactions that have shaped our world today. They will use primary sources to examine the rise of nationalism, war, and how globalization has impacted the development of world cultures. They will utilize their skills to examine the intersectionality of our modern world and use this knowledge to help become informed global citizens.

# Honors Modern World History

(Grade 9)

Prerequisite: Recommendation by Department

This honors world history course is designed to challenge students and prepare them for a postsecondary experience. In this exploration of World History from 1877 through today, students will dive into the events, concepts, and interactions that have shaped our world today. They will use primary sources to examine the rise of nationalism, war, and how globalization has impacted the development of world cultures. They will utilize their skills to examine the intersectionality of our modern world and use this knowledge to help become informed global citizens.

# **AP World History**

(Grade 9-12)

The AP World History course offers high school students a comprehensive exploration of global history, covering major themes, events, and developments from prehistory to the present. Students analyze historical patterns, geographic influences, and cultural exchanges across different civilizations and regions. The course emphasizes skills in chronological thinking, geographic analysis, historical inquiry, and comparative analysis. Students also develop writing and communication skills through essays and document-based questions. Ultimately, the course aims to prepare students for the AP World History exam and provide them with a deeper understanding of the complexities of human history.

#### U.S. History

(Grade 10)

U.S. History will explore the history of the U.S. from the first settlers crossing the Bering Strait roughly 15,000 years ago to the present issues facing America and projecting the nation's future. The class places emphasis on political, social, economic, diplomatic, and military events that have shaped the nation's development. Specific areas of focus include the Constitution, the Civil War, the plight of Native Americans, and World War II. Over the course of the year, students will gain an understanding

of how historical events have shaped their lives today. In addition, they will further develop reading, writing, analytical, and verbal communication skills.

#### Honors U.S. History

(Grade 10)

Prerequisite: Recommendation by Department

This honors U.S. history course is designed to challenge students and prepare them for a postsecondary experience. U.S. History will explore the history of the U.S. from the first settlers crossing the Bering Strait roughly15,000 years ago to the present issues facing America and projecting the nation's future. The class places emphasis on political, social, economic, diplomatic, and military events that have shaped the nation's development. Specific areas of focus include the Constitution, the Civil War, the plight of Native Americans, and World War II. Over the course of the year, students will gain an understanding of how historical events have shaped their lives today. In addition, they will further develop reading, writing, analytical, and verbal communication skills.

#### **AP Comparative Government & Politics**

(Grade 11 & 12)

The AP Comparative Government and Politics course offers high school students an in-depth examination of political systems, institutions, and processes across different countries. Students learn through comparative analysis of case studies, exploring concepts such as regime type, political culture, and governance structures. The course emphasizes understanding key political institutions, actors, and processes, and prepares students for the AP exam through practice and analysis of exam questions. Overall, it fosters critical thinking and provides students with a global perspective on politics and governance.

#### AP U.S. History

(Grade 10 to 12)

AP U.S. History students investigate significant events, individual developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills 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.

# IB History of the Americas Year I (SL/HL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

This course is based on a comparative and multi-perspective approach to the history of the Americas. It involves the study of a variety of types of history, including political, economic, social, and cultural, and provides a balance of structure and flexibility. Students will study American history, as well as provide opportunities for in-depth investigation of major global events and their impact on the Americas.

# IB History of the Americas Year II (SL/HL)

(Grade 12)

Prerequisite: Successful completion of IB History of the Americas Year I

Continuing from History of the Americas Year I, History of the Americas Year II will take the building blocks from the first year and dive deeper into North and South America in 20th Century Affairs. Students will be prepared to take the IB test to earn college credits through inquiry-based exploration.

# AP Psychology

(Grade 10 to 12)

AP Psychology is an introductory college-level psychology course. Students cultivate their understanding of the systematic and scientific study of human behavior and mental processes as they explore concepts like the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology.

# IB Psychology Year I (SL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

The IB Psychology I course aims to expose upper school students to the many approaches to understanding human processing and behavior. Throughout the course, the biological, cognitive, and socio-emotional factors of human behavior are explored. These three topics are expounded upon through applicable research studies, exposure to historical implications, current studies, applications, and practices. Students will be evaluated based on their command and application of the content as it pertains to individuals and in a global sense.

# IB Psychology Year II (SL)

(Grade 12)

Prerequisite: Successful completion of IB Psychology Year I (SL)

The IB Psychology II course is an extension of IB Psychology I. The purpose of this course is to prepare IB students to successfully complete their exams. Throughout the course, the biological, cognitive, and socio-emotional factors of human behavior are explored through research studies, exposure to historical contributions, current studies, and applications. Students will also explore abnormal psychology, developmental psychology, health psychology and the psychology of human relationships. Students will be evaluated based on their command and application of the content as it pertains to individuals and in a global sense.

#### AP Art History

(Grade 11 & 12)

The AP Art History course offers students a comprehensive exploration of art history from various cultures and time periods. Students study artistic traditions, techniques, and materials, and develop skills in analyzing and interpreting works of art. The course emphasizes global perspectives and contextual understanding, preparing students to recognize the historical significance of art. Through exam preparation and practice, students refine their visual analysis and essay writing skills. Overall, the course aims to foster an appreciation for the diversity and complexity of human artistic expression.

# AP Human Geography

(Grade 11 & 12)

The AP Human Geography course introduces high school students to the study of human geography, focusing on spatial patterns and processes that shape human societies. Students learn about population dynamics, cultural diversity, political organization, economic systems, urbanization, and environmental issues. Through analysis of geographic data and preparation for the AP exam, students develop critical thinking, spatial analysis skills, and geographic literacy. Overall, the course aims to deepen students' understanding of the complexities of human geography and prepare them for further study in related fields.

# IB Global Politics Year 1 (SL/HL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

The IB Global Politics course provides high school students with a comprehensive exploration of key concepts, theories, and issues in political science from a global perspective. Students examine political ideologies, institutions, and actors, analyze contemporary global issues, and study international relations theories. Through research projects, case studies, and discussions, students develop critical thinking skills and engage with ethical dilemmas. The course aims to foster global citizenship and prepare students for further study in political science and international relations.

# IB Global Politics Year 2 (SL/HL)

(Grade 12)

Prerequisite: Successful completion of IB Global Politics Year I (SL/HL)

This is an advanced course focusing on political theories, global issues, and international relations. Building upon the first-year curriculum, students delve deeper into topics such as international organizations, human rights, conflict resolution, and global governance. They engage in discussions, debates, and case studies to analyze complex political concepts and real-world issues. Advanced research skills are developed through essays and projects, fostering critical thinking and interdisciplinary connections. Emphasis is placed on global citizenship, encouraging reflection on values and responsibilities in the global community. Students gain a comprehensive understanding of global politics and are prepared for the IB examination.

# IB World Religions Year 1 (SL/HL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

The IB World Religions course offers students an academic exploration of major world religions, focusing on beliefs, practices, and cultural contexts. Students compare and contrast religious traditions, analyze religious experiences, and examine ethical teachings. Through critical inquiry and reflection, students develop a deeper understanding of religious diversity and its impact on individuals and societies. The course prepares students for IB assessments through exams, essays, and research projects, fostering inter-cultural understanding and respect for religious diversity.

# IB World Religions Year 2 (SL/HL)

(Grade 12)

Prerequisite: Successful completion of IB World Religions Year I (SL/HL)

IB World Religions Year 2 is an advanced course exploring the major world religions in depth. Students delve into specific traditions, analyzing their historical development, sacred texts, rituals, and contemporary issues. Emphasis is placed on critical analysis and interdisciplinary connections with fields such as history, sociology, and philosophy. The course fosters intercultural understanding and reflection on personal beliefs. By the end, students gain a deep appreciation for religious diversity and are equipped to engage thoughtfully with global religious issues.

# Senior Research Capstone

Graduation Requirement: Senior Year course completion. Required for all seniors, except for those who are participating in the IB DP program.

This full-year leadership course is designed to create a dialogic space where seniors can take active roles in learning. It is a space designed for students to not only reflect critically on the cultural forces at work in their lives but also lay claim to their own roles in shaping that culture. Through reading discussion, and research, students will raise questions, uncover, and develop personal responses.

# **History and Social Science Elective Courses**

# Social Entrepreneurship

(.5 credit)

The University Startups Social Entrepreneurship Program is a selective, challenging, college-level business startup course that teaches high school students how to start for-profit social impact companies. Using the lean startup methodology and design thinking, students learn to identify problems, iteratively develop solutions and build business plans and pitch decks to launch companies. Students will learn to speak to customers and will be advised by business mentors. This program culminates in a live pitch showcase where teams present their business to a panel of experienced judges.

#### Honors Macroeconomics

(0.5)

Honors Macroeconomics is an advanced course focusing on principles, theories, and policies governing national and global economies. Students explore topics including aggregate demand and supply, fiscal and monetary policies, international trade, and economic growth. Through analysis of data and current events, students gain practical insights into economic phenomena. Emphasis is placed on quantitative skills development and understanding the social implications of economic decisions. By course end, students possess a deep understanding of macroeconomic concepts and are prepared for further study or engagement in the global economy.

#### AP Macroeconomics

AP Macroeconomics is a college-level course covering the principles of macroeconomics. It includes topics such as economic indicators, national income determination, monetary and fiscal policies, inflation, unemployment, economic growth, international trade, and financial markets. Students learn to analyze economic data, understand policy implications, and apply economic concepts to real-world scenarios. The course aims to develop critical thinking and communication skills necessary for evaluating macroeconomic issues.

#### AP Microeconomics

AP Microeconomics is a college-level course covering fundamental principles of microeconomics. It introduces concepts such as supply and demand, elasticity, consumer choice, production, market structures (perfect competition, monopoly, monopolistic competition, oligopoly), factor markets, and market failure. Students learn to analyze economic decisions, understand market interactions, and evaluate government interventions. The course emphasizes critical thinking, real-world applications, and data analysis.

# Theory of Knowledge I

(Grade 11) (.5 credit)

Prerequisite: IB Diploma Programme Candidates

Theory of Knowledge (TOK) is a critical thinking course designed to teach students how to reflect on themselves as knowers and thinkers, and on the different communities of knowers to which they belong. It is designed around the exploration of knowledge and the knower, knowledge and technology, and knowledge and language as it relates to five areas of knowledge: history, the human sciences, the natural sciences, mathematics, and the arts. Students can expect to engage with a variety of literary and non-literary sources including TEDTalks, documentaries, short stories, parables, Twitter feeds, and more. This course demands a certain level of maturity and grace in discussions and reflections on potentially sensitive topics. Students should be prepared to be challenged in their everyday thoughts and remain open-minded to others' perspectives. Students will participate in a TOK exhibition at the end of the year.

# Theory of Knowledge II

(Grade 12) (.5 credit)

Prerequisite: Theory of Knowledge I

This senior-level course expounds upon what was explored during year 1 of TOK. This course has a heavy writing focus as students write their TOK essay. This course builds upon the ideals set forth in TOK 1 and requires immense maturity as students are expected to reflect on many divisive global issues and participate in civil discourse, both written and oral, with members of the community who have opposing ideas to themselves. Students can expect to challenge their status quo and be introduced to questions they've never considered before, but which will ultimately make them better scholars and better people.

# Critical Thinking Seminar

(Grade 11) (.5 credit)

The Critical Thinking Seminar is a combined class that will meet with students in Theory of Knowledge (TOK) I. This course is designed for students who are not required to take TOK as part of the IB diploma program but have interest in the exploration of knowledge and critical thinking. This course is designed to teach students how to reflect on themselves as knowers and thinkers, and on the different communities of knowers to which they belong. Students will explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives through engagement with a variety of literary and non-literary sources. Like TOK, the Critical Thinking Seminar demands a certain level of maturity and grace in discussions and reflections on potentially sensitive topics. Students should be prepared to be challenged in their everyday thoughts and remain open-minded to others' perspectives.

# Extended Essay (IB DP Program)

(Grade 11) (.5 credit)

Prerequisite: Required course for IB DP students in 11th grade

This course focuses on the research and development of the extended essay, which is an in-depth study of a focused topic chosen from the Diploma Programme subjects. This course promotes academic research and writing skills, providing students with an opportunity to engage in personal research in a topic of their own choice, under the guidance of a supervisor. This course will equip learners with the skills to access, navigate, evaluate, and utilize online content responsibly with efficiency. Instruction will reinforce concepts on the mechanics of writing and formatting a research paper, including the extended essay. The tools attained in this course will provide overall guidance during the research process to facilitate the development of an independent and information literate researcher. Students will be assessed on their ability to demonstrate their understanding of these concepts through oral, written, and interactive participation during research skills labs.

#### Literary Research

(.5 credit)

This course is focused on equipping students with the skills needed for in-depth literary analysis and research. Students learn research methods, textual analysis, and how to situate literary works within their historical and theoretical contexts. They also develop writing skills for composing research papers and presentations. Through practical exercises and projects, students refine their ability to critically engage with literature and contribute to scholarly discourse. This course prepares students for further study in literature or related fields and cultivates valuable research and analytical skills for various career paths.

#### Ethics & Morality

(0.5 credit)

Students learn how to become responsible moral agents, competent and humane professionals, and informed and engaged citizens. To achieve this, the course provides students with the conceptual tools to make autonomous, informed, comprehensive, and coherent judgments about personal, professional, and public ethical issues.

#### Art History I: Ancient to Medieval

(0.5 credits)

This course provides an in-depth study of the history of art as well as concepts and principles of visual art. In lectures and discussion, students will explore a variety of artworks, including painting, sculpture, architecture and more, from ancient times through the medieval period. They will learn to recognize major and minor works of art and artists' styles and develop an understanding of the context and important role of art, artists, and creative expression in the evolution of society, culture, and history. Material is presented in lecture and discussion; students will develop observation, listening, and note-taking skills; research projects will be assigned.

#### Art History II: Renaissance to Modern

(0.5 credits)

Prerequisite: Art History I

In this course, students will continue to explore the visual arts and principles of art from the Renaissance era through modern day, focusing on artists, artistic movements, and art-related innovations that have influenced and expressed historical and cultural developments over the centuries. Material is presented in lecture and discussion; students will develop observation, listening, and note-taking skills; research projects will be assigned.

#### World Religions and Cultures

(0.5 credits)

This course introduces students to various religious traditions and cultural practices worldwide. Students explore major world religions, compare and contrast beliefs and rituals, and analyze the historical and societal contexts shaping religious and cultural diversity. Through critical thinking and

reflection, they examine contemporary issues and debates, promoting inter-cultural understanding and respect. The course aims to foster empathy, appreciation, and positive engagement with diverse perspectives in a globalized world.

# Anthropology

(0.5 credits)

This course introduces students to the study of human societies and cultures through four main sub-fields: cultural anthropology, archaeology, physical anthropology, and linguistic anthropology. Students explore the diversity of human experiences, societal norms, and cultural practices across time and space. Through comparative analysis and hands-on activities, students develop critical thinking skills and an understanding of the interconnectedness of human societies. By the course's end, students gain a comprehensive understanding of anthropology and are prepared for further study in related fields.

#### Sociology

(0.5 credits)

This course introduces students to the study of human society and social behavior, covering foun-dational concepts, key perspectives, and empirical research methods. Students explore a wide range of topics including culture, socialization, inequality, and social change. Through analysis of contemporary issues and engagement with sociological theories, students develop critical thinking skills and cultural competence. By the course's end, students gain a comprehensive understanding of sociology and its relevance to understanding the complexities of contemporary society.

# **Mathematics**

Graduation Requirements: At least three sequential years of math at the upper-school level beyond Algebra I.

#### Pre-Algebra

(Grade 9)

This course provides the foundation for future success in high school mathematics, critical thinking, and problem-solving. Learners will explore the foundations of Algebra, solving equations, solving inequalities, an introduction to functions, linear functions, systems of equations and inequalities, exponents and exponential functions, polynomials and factoring, quadratic functions and equations, radical expressions and equations, and data analysis and probability. They will also explore topics in fractional exponents, exponential and logarithmic functions, and trigonometry.

#### Honors Algebra

(Grade 9-10)

This is an accelerated course focusing on advanced algebraic concepts and their applications. Students review fundamental principles before progressing to topics such as linear equations, quadratic equations, polynomial functions, and systems of equations. Problem-solving activities, mathemati-

cal modeling, and real-world applications reinforce understanding. Emphasis is placed on algebraic reasoning, critical thinking, and the use of technology to enhance learning. By course end, students develop strong analytical skills and are well-prepared for further studies in mathematics or related fields at the college level.

#### Algebra I

(Grade 9-10)

This course is focused on basic algebra topics. Students will learn to work with polynomials, linear and quadratic equations, and inequalities in a variety of ways including simplifying, factoring, solving, and modeling everyday problems. Students will also work with rational, radical, and exponential equations. This course will also cover knowledge and skills in working with 2D and 3D geometric shapes.

# Geometry

(Grade 9-10)

Prerequisite: Algebra I

This course covers some essential concepts from geometry such as main axioms, properties of triangles and general polygons, congruence, similarity transformations, degrees, and radians. Some trigonometry concepts will be introduced along with unit circle properties. Major theorems like Pythagorean Theorem, Law of Sines, and Law of Cosines also will be covered. Use of a calculator will be needed, although only on some occasions. We will work with 2D and 3D objects and compute areas, surface areas, and volumes of some objects. To improve their critical thinking, students will periodically be given some proof-based problems.

# Honors Geometry

Prerequisites: Honors Algebra I or Algebra I

This honors geometry course is designed to challenge students and prepare them for a postsecondary experience. This subject will cover some essential concepts from geometry such as main axioms, properties of triangles and general polygons, congruence, similarity transformations, degrees, and radians. Some trigonometry concepts will be introduced along with unit circle properties. Major theorems like Pythagorean Theorem, Law of Sines, and Law of Cosines also will be covered. Use of a calculator will be needed, although only on some occasions. We will work with 2D and 3D objects and compute areas, surface areas, and volumes of some objects. To improve their critical thinking students will periodically be given some proof-based problems.

# Algebra II

(Grade 9-12)

Prerequisite: Algebra I, Honors Geometry and Geometry

This course is based on more advanced algebra, coordinate geometry, trigonometry, statistics, and probability topics. Main topics include equations and graphing of various types of functions, complex numbers,

trigonometric functions, combination and permutation calculations, probability theories, data measurement, presentation, and regression techniques. Students work to improve their overall problem-solving skills.

#### Honors Algebra II

(Grade 9-11)

Prerequisite: Honors Algebra I or Algebra I

This course is designed to challenge students and prepare them for a postsecondary experience. This course is based on more advanced algebra, coordinate geometry, trigonometry, statistics, and probability topics. Main topics include equations and graphing of various types of functions, complex numbers, trigonometric functions, combination and permutation calculations, probability theories, data measurement, presentation, and regression techniques. Students work to improve their overall problem-solving skills.

#### Precalculus

(Grade 10-12)

Prerequisite: Honors Algebra II or Algebra II

This course covers topics that are considered prerequisites for Calculus I class, such as functions and graphs, lines and rates of change, sequences and series, polynomial and rational functions, exponential and logarithmic functions, introduction to linear algebra and matrices, probability, and statistics.

#### **AP Precalculus**

(Grade 10-12)

Prerequisite: Honors Algebra II or Algebra II

AP Precalculus is an advanced course that provides students with a comprehensive understanding of algebra, trigonometry, and analytical geometry. Through a combination of theoretical instruction and problem-solving exercises, students explore functions, trigonometric identities, conic sections, and more. Emphasis is placed on preparing students for success in college-level calculus and the AP Calculus exams. By the course's end, students develop strong mathematical reasoning and problem-solving skills essential for further studies in mathematics and related fields.

#### Calculus

(Grade 11-12)

Prerequisite: Precalculus or AP Precalculus

This course covers the foundational topics and skills of differential and integral calculus of one variable. Topics include distance, velocity, and acceleration relationships; slope functions and linearizations; area functions; differentiation techniques; and optimization. Calculus will explore applications from various fields, including physics and economics. The approach will be concept-driven, with open-ended problem solving playing a major role in the class.

#### AP Calculus AB

(Grade 11-12)

Prerequisite: Precalculus or AP Precalculus

The AP Calculus AB course introduces high school students to differential and integral calculus. Students learn about functions, limits, differentiation, integration, and their applications in various contexts such as optimization and related rates. The course emphasizes problem-solving skills and prepares students for the AP Calculus AB exam through practice and review. Overall, it aims to provide students with a solid foundation in calculus and prepare them for further study in mathematics and related fields.

#### AP Calculus BC

(Grade 11-12)

Prerequisite: Precalculus or AP Precalculus

The AP Calculus BC course covers advanced topics in calculus, including limits and continuity, differentiation techniques, integration methods, applications of integration, differential equations, parametric, polar, and vector functions, infinite sequences and series, and advanced techniques of integration. The course aims to provide students with a deep understanding of calculus concepts and their real-world applications, preparing them for college-level coursework.

#### **Statistics**

(Grade 11-12)

Prerequisite: Algebra II or prior approval of the Department

This course covers the concepts and procedures in descriptive and inferential statistics of one- and two-variable data. The main topics are data organization, inferential statistics, and probability as it relates to distribution of data and the use of regression in mathematical modeling. Students engage in discovery of characteristics of data and in open-ended problem-solving through group work and projects. Students will use software through group work and projects. Students will use excel, enabling them to analyze larger sets of data.

#### **AP Statistics**

(Grade 11-12)

Prerequisite: Algebra II or prior approval of the Department

The AP Statistics course introduces high school students to the principles and methods of statistics. Students learn about descriptive statistics, probability, statistical inference, experimental design, and data analysis techniques. The course emphasizes real-world applications and prepares students for the AP Statistics exam through problem-solving and critical analysis of data. Overall, it aims to provide students with essential statistical skills and prepare them for further study in various fields where data analysis is crucial.

# IB Mathematics: Applications and Interpretations Year I (HL/SL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

This is the first-year DP math course, primarily focused on applications of mathematics using the theories and techniques learned from number and algebra, functions, geometry and trigonometry, statistics, and probability. It is presumed that students have some prior knowledge in high school algebra and geometry. Some review of critical concepts from those areas will be included. This course aims to develop mathematical thinking and modeling skills. Technology will be used for assistance in solving real world problems.

# IB Mathematics: Applications and Interpretations Year II (HL/SL)

(Grade 12)

Prerequisite: Successful completion of Applications and Interpretations I (HL/SL)

This is the second-year DP math course and a continuation of DP Mathematics: Applications and Interpretation 1. This course includes further topics in geometry and trigonometry, statistics and probability, and calculus. It is presumed that students have completed the first year of DP math course. This course will continue to develop mathematical thinking and model skills, including a math essay exploring a certain topic chosen by each student. DP math exam preparation is included as part of this course.

# **Technology and Computer Science**

Graduation Requirement: One year of technology or computer science.

# Computer Programming

(.5 credit)

This course utilizes the MIT App Inventor blocks-based programming language. Students will use blocks-based coding programs to inspire intellectual and creative empowerment by building socially useful mobile apps. MIT App Inventor's blocks-based tool facilitates the creation of complex, high-impact apps in significantly less time than traditional programming environments. This course uses project-based programming and computer science lessons; emphasizes writing and communication skills; fosters collaboration and creativity in the classroom. New incentives also include artificial intelligence (AI).

# Website Design

(.5 credit)

This course introduces students to the fundamentals of browser-based application development via fun real-world applications and graphics, animation, and game-based engaging curriculum. The course engages students in creative problem solving and further develops computational thinking. Students learn the basics of HTML/CSS and JavaScript programming concepts including variables, conditionals, loops, functions, user inputs, events, and lists. The programming concepts learned in this

course are transferable to any other programming language. No prior coding experience is required. A laptop or Chromebook with internet connectivity is required to participate in this course.

# Foundations in App Development

(.5 credit)

This course introduces students to the fundamentals of app development. Students will learn about basic programming concepts and how to deploy their app on a device. In addition, students will learn the basics of event-handling, user-interface design, prototyping, the user experience, and other principles of the creative process that bring apps to life.

#### Computer Aided Design

(.5 credit)

This CAD course introduces students to designing and drafting using computer software. Students learn to use CAD software for creating 2D and 3D designs, drafting techniques, parametric modeling, assembly design, and simulation analysis. Through hands-on projects, students apply CAD concepts to real-world problems, preparing them for future study or careers in engineering, architecture, and manufacturing.

#### **Robotics**

(.5 credit)

This is a hands-on laboratory course involving the physical construction, electronic wiring, and computer programming of robots. Students will, both individually and in groups, be responsible for construing their own individual robots. Where possible, these robots will be evaluated on students' lab completion and reflection process, and where appropriate, through timed and agility robotics competitions. This is considered an introductory level class, and all are encouraged to join.

# Keyboarding

(0.5 credit)

Keyboarding is designed to provide an opportunity to learn to touch type on the computer keyboard using correct techniques as well as the development of speed and accuracy. Students will be introduced to the formatting of personal and business letters, notes, memos, and emails.

# AP Computer Science Principles

(Grade 11 & 12)

The AP Computer Science Principles course introduces students to foundational concepts in computer science and computational thinking. It covers topics such as programming, computational tools, the internet, data analysis, creative development, and the societal impacts of computing. Emphasizing problem-solving skills and collaboration, the course aims to prepare students for further studies or careers in technology-related fields. Assessment includes projects, exams, and presentations, with the course culminating in an AP exam.

#### AP Computer Science

(Grades 11 &12)

The AP Computer Science course provides a comprehensive exploration of computer science principles and programming concepts, primarily using the Java programming language. Students learn object-oriented programming, data structures, algorithms, software development principles, and problem-solving skills. The course covers topics such as Java syntax, control structures, methods, recursion, and algorithm analysis. Additionally, students examine ethical and social implications of computing. Assessment includes programming assignments, projects, and exams, culminating in an AP exam evaluating students' proficiency in programming and algorithmic problem-solving.

#### Multimedia Production

(.5 credit)

(Can earn an Adobe Professional Certification)

This course introduces students to the principles, techniques, and applications of multimedia production. It covers topics such as video, photojournalism, and design. Through hands-on projects, students explore multimedia design, digital media formats, and effective communication strategies. Practical skills include using software like Adobe Creative Suite. Students also learn to analyze multimedia content and consider ethical and legal implications. By the end, students develop critical thinking and problem-solving abilities, ready to pursue further studies or careers in multimedia design and related fields.

#### Al & Data Science

(.05)

Prerequisites: Basic understanding of high school level algebra, statistics, and computer programming. Basic programming knowledge in Python is recommended but not required.

This is a year-long, half-credit high school technology course that provides students with an indepth understanding of data science and artificial intelligence (AI). This course is designed to cultivate critical thinking and problem-solving skills through hands-on projects and real-world case studies, which provide opportunities for students to work with real datasets and showcase the practical side of AI and Data Science. The curriculum starts by introducing students to the fundamental concepts of data science and AI, including Python programming and Jupyter Notebook, before delving into further topics in data collection, data cleaning, data analysis, predictive modeling and data visualization. The knowledge base is supplemented with an understanding of AI ethics, where topics like bias, privacy, transparency, and accountability in AI are explored.

# Arduino & Al Applications

(.05)

Prerequisites: Basic understanding of high school level algebra and computer programming. Basic programming knowledge in C++/Python is recommended but not required.

This is a year-long, half-credit high school technology course that provides students with a proj-

ect-based hands-on experience in working with Arduino, an integrated hardware and software platform designed to create a wide range of applications without a deep background in electronics or programming. The curriculum starts by getting students familiar with the Arduino platform and C++/ Python programming, before delving into multiple projects of image and voice recognitions and related Al applications.

# Science

Graduation Requirement: Three years to include one life science and one physical science

The goal of science department courses is to help students gain a sophisticated understanding of the natural world using the scientific method of hypothesis-driven inquiry and mathematical description. Science literacy requires both an understanding of the fundamental concepts that underpin all of nature and the investigative skills necessary for their discovery. Ideally, the students' selection of science courses should combine the broad scope of scientific disciplines with an in-depth comprehension of at least one field. The introductory biology course, required for all 9th-grade students, provides the foundation of scientific concepts and skills for the other science courses.

#### Biology

(Grade 9) (Life Science)

This introductory course emphasizes student-centered, active learning. The course covers many aspects of biological organization, beginning at the molecular level and progressing to interactions at the level of the biosphere. There is a particular emphasis on the levels of organization of populations, communities, and ecosystems. Integrated into the course are basic biological themes including evolution, diversity of living things, homeostasis, complementary structure and function, and genetics. The course exposes students to the basic laboratory techniques required for further study in the sciences, as well as introducing students to the skills involved in writing lab reports.

# Honors Biology

(Grade 9)

(Life Science)

This honors biology course is designed to challenge students and prepare them for a postsecondary experience with student-centered, active learning. The course covers many aspects of biological organization, beginning at the molecular level and progressing to interactions at the level of the biosphere. There is a particular emphasis on the levels of organization of populations, communities, and ecosystems. Integrated into the course are basic biological themes including evolution, diversity of living things, homeostasis, complementary structure and function, and genetics. The course exposes students to the basic laboratory techniques required for further study in the sciences, as well as introducing students to the skills involved in writing lab reports.

#### AP Biology

(Grade 11 & 12) (Life Science)

The AP Biology course delves into fundamental biological concepts including molecular biology, cellular processes, genetics, evolution, ecology, and organismal biology. Students explore topics such as DNA structure, cellular respiration, genetic inheritance, natural selection, ecosystem dynamics, and human impact on the environment. The course emphasizes scientific inquiry, critical thinking, and laboratory skills, preparing students for the AP Biology exam and future studies in biology-related fields.

# Chemistry

(Grade 10)

(Physical Science)

This course provides academically strong and motivated students the opportunity to enhance and enrich their overall education and specifically to delve into the academic field of chemistry. This course challenges students to think and create at the highest levels of their abilities and encourages them to excel as they work to realize their potentials. Students are expected to develop refined critical thinking skills and to apply those skills to cumulative examinations, tests, laboratory experiments, class participation, and all other aspects of the course.

# **Honors Chemistry**

(Grade 10)

(Physical Science)

This course provides students with an in-depth exploration of fundamental principles and concepts in chemistry. Students study atomic structure, chemical bonding, stoichiometry, chemical reactions, thermodynamics, kinetics, equilibrium, acids and bases, and electrochemistry. The course emphasizes critical thinking, problem-solving, and laboratory skills through hands-on experiments and investigations. Overall, it aims to prepare students for further study in chemistry-related fields while fostering an appreciation for the role of chemistry in understanding the natural world.

# AP Chemistry

(Grade 11 & 12)

The AP Chemistry course delves into the fundamental principles of chemistry at a collegiate level. It covers topics such as atomic and molecular structure, stoichiometry, thermodynamics, chemical kinetics, equilibrium, acids and bases, electrochemistry, chemical bonding, states of matter, solution chemistry, nuclear chemistry, and more. Through both theoretical learning and laboratory work, students gain a comprehensive understanding of chemical concepts and their real-world applications. The course culminates in an AP exam assessing students' knowledge and skills in chemistry.

# IB Chemistry Year I (SL)

(Grade 11)

The IB Chemistry Year 1 course provides students with an introduction to fundamental principles in chemistry. Students study atomic structure, chemical bonding, states of matter, stoichiometry, chemical energetics, kinetics, equilibrium, acids and bases, redox reactions, organic chemistry, and analytical chemistry. Through theoretical study and laboratory work, students develop critical thinking, problem-solving, and experimental skills. The course aims to prepare students for further study in IB Chemistry Year 2 or other advanced chemistry courses, emphasizing the importance of chemistry in understanding the natural world.

# IB Chemistry Year 2 (SL)

(Grade 12)

The IB Chemistry Year 2 course is an advanced study of chemistry that builds upon the foundational knowledge acquired in Year 1. Students delve deeper into topics such as thermodynamics, chemical kinetics, equilibrium, acids and bases, electrochemistry, organic chemistry, analytical chemistry, biochemistry, and environmental chemistry. They also develop advanced laboratory skills and explore specialized topics in chemistry based on their interests. Overall, the course aims to provide students with a comprehensive understanding of chemistry principles and prepare them for university-level study or careers in chemistry-related fields.

#### **Physics**

(Grade 11)

(Physical Science)

This course provides academically strong and motivated students the opportunity to enhance and enrich their overall education and specifically to delve into the academic field of physics. This course challenges the students to think and create at the highest levels of their abilities and encourages them to excel as they work to realize their potential. Students are expected to develop refined critical thinking skills and to apply those skills to cumulative examinations, tests, laboratory experiments, class participation, and all other aspects of the course.

# **Honors Physics**

(Grade 11)

(Physical Science)

This course offers students an in-depth exploration of fundamental principles in physics, covering topics such as mechanics, Newtonian gravity, oscillations and waves, electricity and magnetism, thermodynamics, optics, and modern physics. Through hands-on experiments and investigations, students develop critical thinking and problem-solving skills while gaining a strong foundation in physics principles. The course aims to prepare students for further study in physics-related fields and fosters an appreciation for the role of physics in understanding the natural world.

#### AP Physics 1: Algebra-Based

(Grades 11 &12)

Prerequisite: Must have enrolled or completed Algebra II

This is an advanced high school course focusing on fundamental principles of physics using algebraic problem-solving techniques. Topics include kinematics, forces, energy, momentum, and conservation laws. Through hands-on laboratory investigations and theoretical instruction, students develop critical thinking skills and scientific inquiry abilities. The course prepares students for success on the AP Physics 1 exam and provides a solid foundation for further studies in physics or related fields at the college level.

#### AP Physics 2

(Grades 11 &12)

Prerequisite: Must have completed AP Physics 1

This is an advanced high school course that expands on the foundation of AP Physics 1. It covers topics such as fluid mechanics, thermodynamics, electricity and magnetism, optics, and modern physics concepts. Students engage in hands-on laboratory investigations and problem-solving activities to deepen their understanding of these topics. The course prepares students for the AP Physics 2 exam and further studies in physics or related fields at the college level. By the end of the course, students develop critical thinking skills and scientific inquiry abilities applicable in various academic and professional settings.

#### AP Physics C: Mechanics

(0.5 credits)

Prerequisite: Must have enrolled or completed calculus

This is an advanced high school course covering classical mechanics at a college level. Topics include kinematics, forces, energy, rotational motion, and conservation laws. Through hands-on laboratory investigations and problem-solving activities, students develop critical thinking and mathematical reasoning skills. The course prepares students for the AP Physics C: Mechanics exam and further studies in physics or related fields at the college level. By course end, students gain a deep understanding of classical mechanics and proficiency in calculus-based problem-solving techniques.

#### AP Physics C: Electricity & Magnetism

(0.5 credits)

Prerequisite: Must have enrolled or completed calculus with successful completion of AP Physics C: Mechanics

AP Physics C: Electricity and Magnetism is an advanced high school course focusing on electromagnetism. Topics include electrostatics, electric circuits, magnetostatics, electromagnetic induction, and electromagnetic waves. Through laboratory investigations and problem-solving activities, students develop critical thinking and mathematical reasoning skills. The course prepares students for the AP Physics C: Electricity and Magnetism exam and further studies in physics or related fields at the college level. By course end, students gain a deep understanding of electromagnetism and proficiency in applying mathematical techniques to solve physics problems in this domain.

#### **Environmental Science**

(Grade 11 & 12) (Life Science)

Prerequisites: Biology and Chemistry

This course is designed to engage students 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.

#### AP Environmental Science

(Grade 11 & 12) (Life Science)

Prerequisites: Biology and Chemistry

The AP Environmental Science course provides high school students with a comprehensive understanding of environmental issues and sustainability. Students study ecological principles, Earth systems, resource management, pollution, population dynamics, energy resources, and global environmental change. Through interdisciplinary study and scientific inquiry, students develop critical thinking and problem-solving skills to address complex environmental challenges. The course prepares students for the AP Environmental Science exam and fosters an appreciation for the interconnectedness of environmental issues and human activities.

# IB Biology Year I (HL/SL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

Biology is the study of life. In Biology Year I, students will focus on the foundations of life on the micro and macro scale: cell biology, molecular biology, genetics, ecology, conservation, evolution, and biodiversity. Students will perform up to 28 hours of practical work, culminating in an interdisciplinary group project. They will be given the opportunity to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers, and evaluate and communicate their findings.

# IB Biology Year II (HL/SL)

(Grade 12)

Prerequisite: Successful completion of Biology Year I (HL/SL)

In Biology II, students will investigate their own anatomy and metabolic functions, as well as those found in plants in animals. Topics include human physiology, nucleic acids, metabolism, cell respiration, photosynthesis, plant biology, and animal physiology. Students will perform up to 12 hours of practical work culminating in an individual investigation. Students will be given the opportunity to

design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers, and evaluate and communicate their findings.

\*Students enrolled in the IB DP program are required to complete a Group 4 (Sciences) group project to introduce the concept of science across multiple disciplines. Group 4 projects encourage an understanding of relationships between scientific disciplines and the overarching nature of the scientific method.

# **Science Elective Courses**

# Equine Science

(Grades 9 to 12)

This course introduces students to both small and large breed animals in a variety of settings. Topics will include animal anatomy, physiology, behavior, nutrition, reproduction, health, and basic care. Students will learn about livestock, zoo animals, and companion pets. Additional topics will include a focus on equine care at Springdale's sister stable, Talbot Run, with additional hands-on experience. Students will explore careers in animal science and discuss animal welfare/rights. Students will participate in local field trips and experience hand-on learning opportunities. The course culminates in a research project based on a species of the student's choice.

### Marine Biology

(Grades 9-12)

This course provides students with an overview of marine ecosystems, organisms, and environmental factors. Students study the diversity of marine life, including adaptations, life cycles, and ecological roles. They learn about different marine habitats, oceanographic phenomena, and human impacts on marine environments. The course emphasizes conservation efforts, research techniques, and career opportunities in marine science. Through hands-on activities and interdisciplinary study, students gain an appreciation for the importance of marine ecosystems and prepare for further study or careers in marine biology and related fields.

#### Forensic Science

(Grades 9-12)

This course introduces students to the principles and techniques used in criminal investigations. Students learn about crime scene investigation, forensic biology, chemistry, anthropology, pathology, and psychology. Through hands-on activities and simulations, students develop critical thinking and analytical skills while exploring the role of forensic science in the criminal justice system. Overall, the course aims to prepare students for further study or careers in forensic science, law enforcement, or related fields.

## **Organic Chemistry**

(Grades 11 & 12)

Prerequisite: Chemistry

This course introduces students to the principles and concepts of organic chemistry, covering topics such as structure, nomenclature, bonding, reactions, stereochemistry, spectroscopy, and synthesis of organic compounds. Through theoretical study and hands-on laboratory experiments, students develop an understanding of organic molecules and their properties, reactions, and applications. The course aims to prepare students for further study in chemistry-related fields or careers requiring knowledge of organic chemistry.

## **Human Anatomy**

This is a comprehensive course covering the structure and function of the human body. Students learn anatomical terminology, body organization, and study various systems including integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary, and reproductive systems. Through theoretical instruction, laboratory investigations, and hands-on activities, students gain an understanding of anatomical structures and physiological processes. By course end, students are equipped with practical skills and knowledge applicable to further studies in health sciences or related fields.

# **World Language**

Graduation requirement: At least two successive years of the same language completed in upper school. Three years total required to graduate for incoming 9th graders. Requirements for students in grades 10-12 is two years, three years is strongly recommended.

The World Language Department offers courses in Spanish and online elective options in other desired languages. All programs include a course at the introductory level and progress through intermediate and advanced-level courses to upper-level courses of advanced literature and/or culture seminars. As they progress in their language study, students gain competency in auditory and oral skills, in reading and writing, and social awareness connected to the themes studied.

#### Placement

Initial placement of students in language classes is determined by a language placement test given by the department. The placement test includes a written and an oral component. The goal is to determine the course that best develops each student's potential and continued growth, while also providing an environment in which the student is comfortable taking the academic risks that are essential to that growth.

# Spanish I

(Grade 9-10)

As a building block for further study in Spanish, Spanish 1 will provide students with a general introduction to the Spanish language: sound system, pronunciation, functional vocabulary related to

everyday life, cultural information, and basic grammatical structures, focusing on the use of the present tense. Students will introduce themselves and others and will be able to answer questions about personal details such as where they live, people they know, and things they have, through teacher-student interaction and cooperative practice. The primary emphasis will be on speaking and listening with the integration of reading and writing, with the primary objective being to give the students the ability to carry on a simple conversation.

## Spanish II

(Grade 9-11)

Prerequisite: Spanish I

Spanish II builds upon the foundation established in Spanish I. This course will build on listening and speaking skills, as well as emphasize reading and writing. Students will be introduced to the preterit and imperfect tenses and will put these structural forms into practice by expressing their immediate past and narrating their childhoods. Specific functions of the future tense will be articulated by the practice of its form. Students will have an opportunity daily for conversational practice. Specific topics of a cultural nature will continue to be addressed with special emphasis on the assimilation of Hispanic influence into mainstream United States society. Students will compare Hispanic cultural practices with their own.

# Spanish III

(Grade 10-12)

Prerequisite: Spanish II

Designed for students who have completed Spanish II or who have demonstrated the equivalent level of proficiency, this course reviews and reinforces the four language skills (speaking, listening, reading, and writing) thereby strengthening all modes of communicating: interpreting, conversing, and presenting. Students practice maintaining conversations with one another, as well as understanding and expressing information across multiple time frames on a variety of topics. These include aspects of everyday life, personal interests, cultural material, and social justice. This course is taught entirely in Spanish.

# Honors Spanish IV: Language & Culture

Prerequisite: Prior approval by the Department

This course is designed for students who have demonstrated the equivalent level of proficiency. Emphasis is placed on developing more advanced structures in various time frames and expanding vocabulary, applied to more extensive oral and written presentation. Students explore in greater depth socio-cultural, historical, and literary topics often addressing issues of social justice and marginalization through authentic supplementary resources by doing group projects and individual investigations. This course is taught entirely in Spanish.

### AP Spanish: Literature and Culture

(Grades 11 & 12)

Recommended: Spanish 1-3

The AP Spanish Literature and Culture course delves into the literature of the Spanish-speaking world while exploring its cultural contexts. Students analyze a variety of literary genres and canonical works, examining themes, styles, and historical influences. The course emphasizes critical thinking, language proficiency, and cultural understanding, preparing students for the AP exam and further study in Spanish literature or related fields.

# AP Spanish: Language and Culture

(Grades 11 & 12)

Recommended: Spanish 1-3

This is an advanced course focusing on developing students' proficiency in Spanish language and their understanding of Hispanic cultures. Through exploration of authentic texts and engaging activities, students enhance their communication skills in speaking, listening, reading, and writing. Emphasis is placed on cultural competency and critical thinking. The course prepares students for the AP Spanish Language and Culture exam and equips them with skills applicable to further studies or engagement with Spanish language and culture in various contexts.

### IB Spanish Ab Initio Year I (SL)

(Grade 11)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

Spanish ab initio uses themes to develop language acquisition which allows students to drive their own instruction by recognizing the use of the Spanish language through context and authentic situations. The course is organized into three themes: (1) individual and society, (2) leisure and work, and (3) urban and rural environment. Each theme comprises a list of topics that provide students with opportunities to practice and explore the language and to develop inter-cultural understanding. Through the development of receptive, productive, and interactive skills, students develop the ability to respond and interact appropriately in a defined range of everyday situations. No previous experience in Spanish is required for the Ab initio Year 1 course, however, previous exposure in another world language is preferred. Ab initio Year 2 has a prerequisite of the completion of Ab initio Year 1 and/or approval of the instructor. Year 1 of Ab initio explores cultures of the Spanish-speaking world, city and rural life, the role of sustainability and protecting the environment, as well Spanish and Hispanic cuisine, and customs.

# IB Spanish Ab Initio Year II (SL)

(Grade 12)

Prerequisite: Successful completion of Spanish Ab Initio I

Year II of Ab initio further covers physical and mental health, environmental issues, entertainment and cultural practices, and technology in the 21st century and beyond.

#### Mandarin I

(Grade 9-12)

This is an introductory course aimed at providing students with foundational skills in listening, speaking, reading, and writing in Mandarin Chinese. Students learn basic vocabulary, grammar, and pronunciation while also developing cultural awareness. Through interactive activities, they practice listening, speaking, reading, and writing in Mandarin, gradually building proficiency in the language. Overall, the course aims to equip students with essential language skills and cultural knowledge to communicate effectively in Mandarin Chinese.

## AP Chinese Language and Culture

(Grade 11-12)

Prerequisite: Departmental approval

The AP Chinese Language and Culture course focuses on developing students' proficiency in Mandarin Chinese language skills and deepening their understanding of Chinese culture. Through activities centered on communication, cultural exploration, and test preparation, students enhance their listening, speaking, reading, and writing abilities in Mandarin. They also gain insight into Chinese customs, traditions, and values. Overall, the course prepares students to engage effectively in Chinese-speaking environments and to excel in the AP Chinese Language and Culture exam.

#### French I

(Grades 9-12)

This is an introductory course that lays the foundation for students to learn the French language and explore French-speaking cultures. Through activities focused on vocabulary building, grammar fundamentals, speaking, listening, reading, writing practice, and cultural exploration, students develop basic language skills and cultural awareness. The course aims to prepare students for further study in French or for communication in French-speaking environments, emphasizing interactive and communicative learning methods to engage students effectively.

#### French II

(Grades 9-12)

Prerequisite: French I

This is a continuation of the introductory French 1 course, focusing on further developing students' language skills and cultural understanding in French. Through vocabulary expansion, grammar review and advancement, speaking and listening practice, reading comprehension, writing skills, and cultural

exploration, students deepen their proficiency in French. Emphasizing communicative learning methods and authentic materials, the course aims to engage students actively in the language learning process and prepare them for continued study or communication in French-speaking environments.

## American Sign Language

(Grades 9-12)

This course introduces students to the language and culture of the Deaf community in the United States. Through vocabulary building, grammar instruction, conversational practice, cultural exploration, linguistic analysis, and technology integration, students develop proficiency in ASL and gain an understanding of Deaf culture and identity. The course aims to empower students to communicate effectively in ASL and to engage respectfully with the Deaf community.

# The Arts

Graduation Requirement: 1.5 years of Arts (visual and performing) credits.

One-semester courses may be combined with any other one- or two-semester course to meet the full year Arts credit requirement. The two semesters do not have to be in the same academic year. The Arts requirement may include courses in fine arts, performing arts, or a combination of the two.

The Fine Art department offers a comprehensive curriculum that fosters skills and creativity in a variety of media. Advanced courses are offered once students have completed a first year in a specific course. Students are advised to begin their study of art in 9th or 10th grade to meet the requirement for graduation and to allow time for advanced study for those inclined.

# Digital Media and Graphic Design

Visual arts students will create art in digital art-making programs. Students will explore photography manipulation, graphic design, simple web design, and animation. Students must have access to a digital camera and PC (not Chromebook). All visual arts classes are rooted in art history, art appreciation, art production, and art criticism and are the basis for each lesson.

#### Studio Art I

(0.5 credit)

Students will explore in-depth art making processes in 2D and 3D. Students will explore 2D art such as pencil and charcoal drawings, watercolor, and acrylic and oil painting. In 3D forms, students will explore bookmaking, clay, soap, and stone carving. In the final quarter, students will create multimedia art and a community art installation. Students at this level will start using art-making knowledge combined with personal styles to convey messages through their art. All visual arts classes are rooted in art history, art appreciation, art production, and art criticism and are the basis for each lesson.

#### Studio Art II

(0.5 credit)

Prerequisite: Studio Art I

Students will explore in-depth art making processes in 2D and 3D. Students will explore 2D art such as pencil and charcoal drawings, watercolor, and acrylic and oil painting. In 3D forms, students will explore bookmaking, clay, soap, and stone carving. In the final quarter, students will create multimedia art and a community art installation. Students at this level will start using art making knowledge combined with personal styles to convey messages through their art. All visual arts classes are rooted in art history, art appreciation, art production, and art criticism and are the basis for each lesson.

### AP Studio Art: Drawina

(Grades 11 & 12)

This course focuses on developing students' drawing skills and creating a portfolio of artwork that demonstrates proficiency in various drawing techniques and concepts. Students work on three portfolio sections: Quality, Concentration, and Breadth. Throughout the course, students refine their skills, explore different concepts, receive feedback through critiques, and prepare their portfolio for evaluation by the College Board. Overall, the course aims to cultivate students' artistic vision, technical abilities, and portfolio-building skills for further study or careers in the visual arts.

### AP Art History

(Grades 10-12)

This course introduces students to the history of art from diverse cultures and time periods world-wide. Students study major artistic traditions, movements, and styles, analyzing works of art in their historical, cultural, and social contexts. Through visual analysis, interpretation, and examination of artistic techniques, students develop critical thinking skills and appreciation for the richness of human expression in art. The course prepares students for the AP exam through exam-focused preparation and practice. Overall, AP Art History aims to cultivate visual literacy, cultural awareness, and an understanding of the significance of art in society.

#### Ceramics

(0.5 credit)

The course introduces students to a range of three-dimensional media, with a strong emphasis on wheel-thrown pottery. Students learn how to prepare clay, use a variety of glazes, and successfully operate a pottery wheel. During the first semester, students complete a broad range of wheel-thrown vessels, while in the second semester the course focuses on a more hand-built and sculptural approach to form. Work will be completed using clay, plaster, plastic, wood, paper, and found objects. Projects will range from realism to abstraction. Students electing this class should expect to get messy and be challenged to be resourceful and imaginative in their art-making.

#### Ceramics II

(0.5 credit)

Ceramics 2 is an advanced course focusing on pottery and sculpture techniques. Students refine their skills in wheel-throwing, hand-building, glazing, and firing. Emphasis is placed on creativity, artistic vision, and craftsmanship, allowing students to explore personal themes and experiment with new ideas. Through critiques, discussions, and studying the work of other artists, students deepen their understanding of ceramic art. By course end, students develop advanced skills in ceramics, create a portfolio of artwork, and are prepared for further study or pursuit of ceramics in higher education or professional settings.

#### Animation

(0.5 credit)

This introductory course takes a new approach to learning about cinema and animation as an important medium for self-expression and as an art form. Students will learn a variety of video techniques, including scriptwriting, storyboarding, camera work, lighting, video editing, animation, and special effects. Students will create hands-on art projects with sound design and learn basic production methods of shooting and editing with Adobe Premiere. The second semester will focus on animation and using traditional tools combined with the latest animation software. Students will attend field trips to museums and watch movie screenings of current shorts and features. Students will also learn film history and appreciation.

## Oil Painting

(0.5 credit)

This introductory drawing and oil painting course offers training in basic and advanced techniques of drawing, oil painting, and composition. Students work in a variety of genres that challenge them to see more analytically while gradually expanding their repertoire of skills. Students work toward building a portfolio of artwork that meets the criteria for advanced course work and reflects their unique vision.

# Portfolio Development

Prerequisite: Prior approval by the Department

This course is a one-year intensive portfolio-based course designed for students seriously interested in painting, drawing, and multimedia art beyond the intermediate level. It is a rigorous college-level curriculum offered in a supportive high school environment. Students need to be self-motivated and serious about following through on assignments to have a successful experience and to be properly prepared for the AP portfolio submission. The objective of the course is to guide each student to create an original portfolio of artwork that meets the standards set by the college board. Students should expect to be challenged to develop their skills to the highest level.

### IB Visual Art Year I (SL/HL)

Prerequisite: Open to 11th-grade students only. Requires teacher recommendation and approval by the IB Administrator.

Year one of the Visual Arts program explores how art is rooted in history and culture. Students will explore different mediums and themes throughout time as they learn to understand their own strengths. Students will learn how to apply prior lessons of art history, art appreciation and art criticism to their own art. Special attention will be given to the artistic process through the student's own sketchbook. These classes are created for the student to develop their own personal style and expression. Technical skills and self-reflection will be practiced through all media to explore strategies and preferences. Students in studio art will be analyzing works of art and exploring how to respond critically to art on a daily basis.

### IB Visual Art Year II (SL/HL)

Prerequisite: Successful completion of IB Visual Art Year I

Year two of the Visual Arts program explores the technicality of expression and digital art-making forms. This class is heavily focused on a deeper understanding of how artwork is presented personally and throughout history. Students will learn to present their own work through curatorial rationale, comparative studies, and exhibition. Students in Year 2 Visual Arts are encouraged to be independently motivated in their personal projects while preparing for their public exhibition.

# **Performing Arts**

# Digital Photography

(0.5 credit)

Students will learn how to take well-composed photographs using digital cameras and/or smart-phones. Students will explore compositional guidelines, including the rule of thirds, symmetry, high and low angles, how to create texture and pattern, and using color. Students will gain hands-on experience taking pictures, using digital filters, and learning how to edit pictures. Students will be introduced to different types of photography, such as outdoor, portrait, still-life, or photojournalism photography.

#### Piano Lab

(0.5 credit)

In this class students will cover more advanced general music as well as history, but focus on learning piano skills. Piano will be the instrument driving your journey through music as you work to understand how harmony, rhythm, and melody work together to create some of the greatest piano pieces of all time. Look forward to playing music from the greats to music of our time. This will also be a performance class with quarterly performances either for the class or for the school.

#### Instrumental Music

(0.5 credit)

Prerequisite: Prior approval from the music department

Students will explore advanced instrumental music through a chosen instrument. Students will have the choice of continuing the instrument that they have been learning or starting a new one. Students will focus on playing ensemble and small group pieces with performances quarterly for the school or for their class.

## AP Music Theory

(Grades 11 & 12)

This course focuses on comprehensive understanding of music theory concepts and skills. It covers fundamentals like notation, rhythm, pitch, scales, intervals, chords, and harmony, while also delving into melody, harmony, form, composition, music history, and aural skills. Students prepare for the AP exam, which includes multiple-choice questions, free-response tasks, and listening exercises. Overall, the course aims to develop students' musical abilities, critical thinking, and appreciation for music.

# Introduction to Filmmaking

(0.5 credit)

This course introduces students to the film making process from the initial creation of a film, from its inception as a treatment and screenplay, to its distribution. The course emphasizes both the theoretical knowledge and practical training of film. Students will participate in hands-on learning on all branches of the film making process, including photography, sound recording, lighting, editing, and production controlling. Students will also become familiar with film history and complete in-depth analysis of different kinds of films and learn key technical and critical film concepts. Students will examine film history from initial inception through to the contemporary films of today. By experimenting with multimedia technology, acquiring skills using the language of the medium, and developing artistic voice, students will become globally conscious filmmakers.

# IB Film Year I (SL/HL)

Prerequisite: Open to 11th grade students only. Requires teacher recommendation and approval by the IB Administrator.

Film is a powerful and stimulating art form and practice. The DP film course is a deep dive into how the film industry works around the world. The course allows students to grow their creative sides, explore their own personal perspectives, and develop critical thinking skills through practical engagement in the art, craft, and study of film. The course focuses on three main areas: reading film, contextualizing film, and exploring film production roles. In HL the students will also collaboratively produce films. By experimenting with multimedia technology, acquiring skills using the language of the medium, and developing artistic voice, students will become globally conscious filmmakers.

## IB Film Year II (SL/HL)

Prerequisite: Successful completion of IB Visual Art Year I

This is the second part of the DP Film course at Springdale. The class will focus more on student creativity and the writing and production of student films. The students will also be working on bolstering their film portfolio and completing a final film for the school to see. It is vitally important that the students have a laptop computer that can edit video. (Students should contact the instructor about the correct types of computers for this class.)

#### Dance

(0.5 credit)

This course offers students the chance to explore various dance styles, develop technical skills, and express themselves creatively through movement. Students learn fundamental techniques, choreography principles, and performance skills while studying dance history, cultural context, and personal expression. Through collaboration, reflection, and critique, students gain a deeper appreciation for dance as an art form and develop valuable skills such as creativity, teamwork, and self-expression.

#### **Theatre**

(0.5 credit)

This course provides students with a comprehensive exploration of various aspects of theatre, including acting, directing, production, technical theatre, history, and theory. Students learn fundamental skills such as acting techniques, script analysis, directing, and technical production, while also studying theatre history and theory. Through performance, production, critical analysis, and collaboration, students develop creativity, critical thinking, communication skills, and appreciation for the performing arts. Overall, High School Theatre courses aim to cultivate well-rounded understanding and practical experience in theatre as an art form and a collaborative process.

#### Guitar Lab

(0.5 credit)

In this class students will cover more advanced general music as well as history, but focus on learning guitar skills. Guitar will be the instrument driving your journey through music as you work to understand how harmony, rhythm, and melody work together to create some of the greatest guitar pieces of all time. Look forward to playing music from the greats to music of our time. This will also be a performance class with quarterly performances either for the class or for the school.

# Physical Education and Health

Graduation Requirement: One year of physical education

The goal of the Physical Education Program is to teach students the knowledge and skills necessary to live a healthy life: to embrace physical activity, to think critically, to cooperate across differences, and to solve problems rationally.

### Physical Education

(0.5 credit)

This course provides students the chance to experience and participate in multiple sports throughout the course of the school year. Students have an opportunity to improve and maintain fitness levels. Upper School students will spend multiple weeks learning the importance and techniques of strength training. The focus of this course is to provide students the opportunity to compete against their peers, teach sportsmanship, and see the importance of becoming and remaining active throughout their life.

#### Health

(0.5 credit)

This comprehensive health course covers topics of physical, mental, and emotional health, nutrition, and physical activity. In addition, it addresses social health and relationships, sexual health, personal health and disease, substances and abuse, and injury prevention and safety. Class discussions will also focus on the importance of a community's health and makeup, and how students can learn to be positive contributors to their local and global communities. Topics include, but are not limited to, social impacts of social media, technology, pressures on adolescents today, and family/community makeup.

#### Life Skills

(0.5 credit)

Students will explore various skills needed to be successful in life and may include financial management, social/emotional health, leadership, or personal development. The topics and programs will be selected over the summer. This class is about forming habits and self discipline. Work will be 80% habit- and 20% knowledge-based. Students should be able to look inward and be honest with themselves about their habits and skills. Reflection and being open to different ideas are needed to fully embrace the skills/habits introduced. The goal is to provide students with information identified by young adults as skills they wish they had learned in high school. Students will have different programs designed for their learning/grade level. Topics may be the same with varying topics within.

# Strength and Conditioning

(0.5 credit)

This course emphasizes basic weight training methods and cardiovascular programs, allowing students to develop strength, conditioning, and develop overall physical conditioning. Students learn the importance of stretching, proper lifting techniques, strength training principles, and maintenance of equipment.

### Culinary Arts

(0.5 credit)

This course teaches students fundamental cooking skills, culinary techniques, and nutritional principles. Students learn to read and execute recipes, develop their culinary skills, understand nutrition, plan meals, explore global cuisines, and enhance food presentation. The classes promote hands-on learning, creativity, cultural awareness, and healthy eating habits, preparing students for cooking at home and potentially for careers in the culinary arts or hospitality industry.

### Yoga

(0.5 credit)

Students are introduced safely to the basic postures, breathing techniques, and relaxation methods of yoga. The course will also introduce students to the historical roots of yoga and give them an understanding of anatomy and physiology as it applies to yoga postures and benefits.

#### Nutrition

(0.5 credit)

This course provides students with foundational knowledge about nutrition and its importance for overall health and well-being. Topics covered in the course include the essential nutrients, dietary guidelines, food sources of nutrients, digestion and metabolism, factors influencing food choices, and the relationship between nutrition and various health outcomes. Students learn how to make informed decisions about food and nutrition, develop healthy eating habits, and understand the impact of nutrition on personal health. Through interactive activities, discussions, and assignments, students gain practical skills for planning nutritious meals, interpreting food labels, and critically evaluating nutrition information. The course aims to empower students to make healthier choices and adopt lifelong habits that support their well-being.

# **Business Administration**

#### Introduction to Business Foundations

(0.5 credit)

This course investigates the scope of business functions, and the positive impact that business has on our society and economic system. Students will explore various topics, concepts, and approaches in the business field, including the dynamics of business and economics, ethics and social responsibility, organizational leadership, operation and supply change, human resource management, and digital marketing and social media.

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Portfolio Development

IB Visual Art Year I (SL/HL)

IB Visual Art Year II (SL/HL)

#### **Springdale Preparatory School**

Upper School Course of Study Academic Year 2024-2025

# Performing Arts

Digital Photography

Piano Lab

Instrumental Music

**AP Music Theory** 

Introduction to Filmmaking

IB Film Year I (SL/HL)

IB Film Year II (SL/HL)

Dance

Theatre

Guitar lab

# Physical Education and Health

**Physical Education** 

Health

Life Skills

Strength and Conditioning

**Culinary Arts** 

Yoga

Nutrition

#### **Business Administration**

Introduction to Business Foundations