



2018-2019 COURSE GUIDE

English

English 1

Grade Level: 9 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

This required course focuses on the 9-10 Common Core State Standards, blending novels, short stories, poems, and drama with nonfiction texts in American Literature. Students engage in a variety of modes of reading, writing, language, speaking and listening, and collaboration through a series of formative and summative tasks that prepare them for ninth grade assessments and build towards International Baccalaureate courses in the 11th and 12th grades. Honors Option

English 2

Grade Level: 10 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: English 1

Fees and Materials: None

This required course continues to focus on the 9-10 Common Core State Standards with increased text complexity, blending novels, short stories, poems, and drama with nonfiction texts in World Literature. An additional area of focus is on authors and perspectives from around the world blended with contemporary issues and ideas. Students engage in a variety of modes of reading, writing, language, speaking and listening, and collaboration through a series of formative and summative tasks that prepare them for tenth grade assessments and build towards International Baccalaureate courses in the 11th and 12th grades. Honors Option

IB Language and Literature 1 and 2 (All Non-IB 11th and 12th grade students)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: English 2

Fees and Materials: IB Textbook (optional) and supplemental book/materials as needed. Optional IB registration and testing fee.

The language A: language and literature course aims to develop skills of textual analysis and the understanding that texts, both literary and non-literary, can relate to culturally determined reading practices, and to encourage students to question the meaning generated by language and texts. An understanding of the ways in which formal elements are used to create meaning in a text is combined with an exploration of how that meaning is affected by reading practices that are culturally defined and by the circumstances of production and reception. Helping students to focus closely on the language of studied texts and to become aware of the role of wider context in shaping meaning is central to the course. The study of literature in translation from other cultures is especially important to IB DP students because it contributes to a global perspective. Texts are chosen from a variety of sources, genres and media.

IB Language and Literature 1 and 2 (SL and HL 11th grade; SL 12th grade) Diploma Students

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: English 2

Fees and Materials: IB Textbook and supplemental book/materials as needed. IB registration and testing fee.

Students completing this course will have a thorough knowledge of a range of texts and an understanding of other cultural perspectives. They will also have developed skills of analysis and the ability to support an argument in clearly expressed writing, sometimes at significant length. This course will enable them to succeed in a wide range of university

courses, particularly in literature but also in subjects such as philosophy, law and language. Texts studied are chosen from the prescribed literature in translation (PLT) list and the prescribed list of authors (PLA) or elsewhere. The PLT list is a wide-ranging list of works in translation, from a variety of languages, allowing teachers to select works in a language different from the language of the examination. The PLA lists authors from the language of the examination.

Math

Financial Algebra

Grade Level: 12 Credit: 10/1 Unit

Course Length: Year

Prerequisites: None

Fees and Materials: None

This course explores various aspects of personal financial literacy including Personal Financial Identity, Income, Financial Institutions, Personal Budgets, Investments, and Careers in Finance through the lens of mathematics as called for by the Common Core State Standards and outlined in the Scope & Sequence.

CU Succeed Math

Grade Level: 12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Counselor Placement Only

Fees and Materials: Textbook and graphing calculator

Functions, graphs, scatter plots, curve-fitting, solving of equations, polynomial and rational functions, and selected other topics.

AP Statistics

Grade Level: 12 Credit: 10/1 Unit

Prerequisites: Pre Calculus

Fees and Materials: Graphing calculator. Students purchase their own textbooks. \$105 AP exam fee.

This two semester course is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data; planning a study; anticipating patterns; and statistical inference.

Integrated Math 1

Grade Level: 9 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: TI-84 Graphing Calculator

Integrated Math 1 is designed to combine some of the basic principles of Algebra, Geometry, and Statistics. Students will deepen and extend their understanding of linear relationships and be introduced to exponential functions, modeled through data. Students will use properties and theorems involving congruent figures to expand and broaden understanding of geometric knowledge. Students will experience mathematics as a coherent, useful, and logical subject that draws on their ability to make sense of problem situations, and will develop the ability to explore and solve mathematical problems, think critically, work cooperatively with other students and communicate mathematical ideas clearly. Honors Option

Integrated Math 2

Grade Level: 9-10 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Integrated Math 1 or Placement test

Fees and Materials: TI-84 Graphing Calculator

Integrated Math 2 is designed to combine some of the intermediate principles of Algebra I, Geometry, Algebra 2 and Probability. Topics include Quadratic Functions, Similarity and Congruence, Circles, Basic Trigonometric Functions and Probability. The Common Core Standards for Mathematical Practices will be addressed throughout the course. Honors Option

Integrated Math 3

Grade Level: 11 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Integrated Math 2 or Placement test

Fees and Materials: TI-84 Graphing Calculator and graph paper

This course is designed to meet the expectations called for by the content and practice standards of the Common Core. Students will explore solving and interpreting solutions to equations, inequalities, and systems of equations (3 x3) and inequalities using a variety of tools; creating functions and/or recursive formulas to model situations; fitting a function to a given set of data; comparing the properties of functions each represented in a different way; understanding the effect of transformations on functions; interpreting key features of functions; collecting and analyzing data to use in drawing statistical conclusions about a population; and using a probability model to mathematically describe and interpret random processes. Functions may include linear, quadratic, exponential, polynomial, square root, cube root, piecewise-defined functions (including step and absolute value), rational, trigonometric, and logarithmic. Honors Option

IB Math Studies 1 and 2 (SL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: Integrated Math 2 / Geometry

Fees and Materials: TI-84 Graphing Calculator, graph paper, and IB Textbook. Optional IB registration and testing fee for non-Diploma students.

The IB mathematical studies course focuses on important interconnected mathematical topics. The syllabus focuses on: placing more emphasis on student understanding of fundamental concepts than on symbolic manipulation and complex manipulative skills; giving greater emphasis to developing students' mathematical reasoning rather than performing routine operations; solving mathematical problems embedded in a wide range of contexts; using the calculator effectively. There is an emphasis on applications of mathematics and statistical techniques. It is designed to offer students with varied mathematical backgrounds and abilities the opportunity to learn important concepts and techniques and to gain an understanding of a wide variety of mathematical topics, preparing them to solve problems in a variety of settings, develop more sophisticated mathematical reasoning and enhance their critical thinking.

IB Mathematics 1 and 2 (SL)

Grade Level: 11-12 Credit: 20/2 Unit

Course Length: 2 years

Prerequisites: Integrated Math 2 / Geometry

Fees and Materials: TI-84 Graphing Calculator, graph paper, and IB Textbook. Optional IB registration and testing fee for non-Diploma students.

The IB mathematics standard level (SL) course focuses on introducing important mathematical concepts through the development of mathematical techniques. The intention is to introduce students to these concepts in a comprehensible and coherent way, rather than insisting on the mathematical rigor required for mathematics HL. Students will apply the mathematical knowledge they have acquired to solve realistic problems set in an appropriate context. The internally assessed exploration offers students the opportunity for developing independence in their mathematical learning. Students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas. The exploration also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas.

IB Mathematics 1 and 2 (HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: Teacher Recommendation Only

Fees and Materials: TI-84 Graphing Calculator, graph paper, and IB Textbook. Optional IB registration and testing fee for non-Diploma students.

The IB higher level mathematics course focuses on developing important mathematical concepts in a comprehensible, coherent and rigorous way, achieved by a carefully balanced approach. Students apply their mathematical knowledge to solve problems set in a variety of meaningful contexts. Development of each topic should feature justification and proof of results. Students should expect to develop insight into mathematical form and structure, and should be intellectually equipped to appreciate the links between concepts in different topic areas. They are also encouraged to develop the skills needed to continue their mathematical growth in other learning environments. The internally assessed exploration allows students to develop independence in mathematical learning. Students are encouraged to take a considered approach to various mathematical activities and to explore different mathematical ideas. The exploration also allows students to work without the time constraints of a written examination and to develop the skills they need for communicating mathematical ideas. This course will operate as an independent with scheduled teacher check pts to ensure on track progression. This class will not be teacher directed.

Science

Biology

Grade Level: 9 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

This course provides information students will use to differentiate living from nonliving things. The course presents the structure and function of living things, from simple cells to complex organisms composed of cells, tissues, organs, and systems. The following units will be covered first semester: Evolution: Patterns and Products of Change in Living Systems; Homeostasis: Maintaining Dynamic Equilibrium in Living Systems; and Energy, Matter and Organization: Relationships in Living Systems. For the second semester: Continuity: Reproduction and Inheritance in Living Systems, Development: Growth and Differentiation in Living Systems; and Ecology: Interaction and Interdependence in Living Systems. Honors Option

Earth Science

Grade Level: 10 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

Introduces the student to the basics of Earth as part of a system in the universe and to the interacting systems on the planet itself. Beginning with astronomy, students will learn about the origin of our solar system, the Earth's moon and its phases. A study of stars will include star formation, types of stars, and life cycle of stars with a focus on the Sun. Focus on the structure of planet Earth and the dynamic forces of plate tectonics that continue to change geography and affect our lives with volcanic eruptions and earthquakes. Additionally, renewable and non-renewable energy resources used by people and the effect our use has on the environment are examined. Global climate change is one possible effect and this leads to a study of oceanography. Ocean currents are studied and the profound influence that they exert on continental climates. The study of climate leads to a unit on weather, specifically the violent events of hurricanes, thunderstorms, and tornadoes. Throughout the course, inquiry activities and data analysis of charts and graphs provide the foundation for content knowledge. Honors Option

Chemistry

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$10 Lab Fee

This course includes studies in basic metric measures, physical and chemical properties, symbols and formulas, atomic structure, mole theory, chemical equations, electron configurations, and the periodic table. It is the intent of this course not only to study the theories of chemistry, but also to demonstrate the applications of those theories through laboratory experience and relate those theories to everyday uses. Honors Option

Physics

Grade Level: 11 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

Students use hands-on, inquiry-based investigation in the context of real-world projects, such as designing roller coasters and announcing sporting events. The first semester of this Physics course focuses on the introduction of the basic concepts of measurement, graphing, vector analysis, dynamics, force analysis, energy, and heat through laboratory and mathematical analysis. The second semester studies basic concepts of wave characteristics, properties of sound and light, and characteristics of electricity and magnetism. Because mathematics is the language of physics, an adequate preparation in Algebra and Geometry is a prerequisite. Honors Option

IB Biology 1 and 2 (SL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: Biology

Fees and Materials: IB Textbook, \$30 lab fee and supplemental book/materials as needed. Optional IB registration and testing fee for non-Diploma students.

Students learn about cell theory, the chemistry of living things, plant structure and growth, and the difference between genes and alleles, among many other topics, to further their understanding of and learning about biology. Throughout this challenging course, students become aware of how scientists work and communicate with each other. Further, students enjoy multiple opportunities for scientific study and creative inquiry within a global context

IB Biology 1 and 2 (HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: Biology

Fees and Materials: IB Textbook, \$30 lab fee and supplemental book/materials as needed. Optional IB registration and testing fee for non-Diploma students.

By studying biology in the DP students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the sciences. Teachers provide students with opportunities to design investigations, collect data, develop manipulative skills, analyze results, collaborate with peers and evaluate and communicate their findings.

IB Chemistry 1 and 2 (SL)

Grade Level: 11-12 Credit: 10/1 Units

Course Length: 1 year

Prerequisites: Chemistry

Fees and Materials: IB Textbook, \$60 lab fee, supplemental book/materials as needed. Optional IB registration and testing fee for non-Diploma students.

The DP chemistry course allows students to develop a wide range of practical skills and to increase facility in the use of mathematics. It also allows students to develop interpersonal and information technology skills, which are essential to life in the 21st century. By studying chemistry students should become aware of how scientists work and communicate with each other. While the scientific method may take on a wide variety of forms, it is the emphasis on a practical approach through experimental work that characterizes the subject. Teachers provide students with opportunities to develop manipulative skills, design investigations, collect data, analyse results and evaluate and communicate their findings.

IB Environmental Systems & Societies (SL)

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: IB Textbook and supplemental material as needed. Optional IB registration and testing fee for non-Diploma students

Environmental systems and societies (ESS) is an interdisciplinary course offered only at standard level (SL). This course can fulfill either the individuals and societies or the sciences requirement. Alternatively, this course enables students to satisfy the requirements of both subjects groups simultaneously while studying one course. ESS is firmly grounded in both a scientific exploration of environmental systems in their structure and function, and in the exploration of cultural, economic, ethical, political and social interactions of societies with the environment. As a result of studying this course, students will become equipped with the ability to recognize and evaluate the impact of our complex system of societies on the natural world.

Social Studies

AP US History

Grade Level: 10 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: AP Textbook and AP exam fee. Optional-*Cracking the AP U.S. History Exam, 2017 Edition: Proven*

Techniques to Help You Score a 5 - \$13.00.

This course focuses on developing students' abilities to think conceptually about U.S. history from approximately 1491 to the present and apply historical thinking skills as they learn about the past. Seven themes of equal importance — identity; peopling; politics and power; work, exchange, and technology; America in the world; environment and geography; and ideas, beliefs, and culture — provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.

CE Ethnic Studies (CU Succeeds)

Grade Level: 11-12 Credit: 5/.5

Course Length: 1 Semester

Pre-requisites: Accuplacer

Fees and Materials: Textbook

Multi-disciplinary survey of contemporary and historical research analysis of the diverse social economic, political, and cultural facets of African American, American Indian, Asian American, and Latino communities and cultures. This course offers college credits.

CE Political Science (CU Succeeds)

Grade Level: 11-12 Credit 5/.5

Course Length: 1 Semester

Pre-requisites: Accuplacer

Fees and Materials: Textbook

General introduction to the American political system with emphasis upon citizen involvement, the relationships among the various levels and branches of government, formal and informal institutions, processes, and behavior.

Civics

Grade Level: 11-12 Credit 5/.5

Course Length: 1 Semester

Pre-requisites: None

Fees and Materials: None

The semester course for Civics is designed to engage students in both the theory and practice of our government, politics and the ability for one to participate in the United States. Students will deepen their knowledge of, understanding of and ability to apply civics' concepts to their everyday lives.

Global Politics

Grade Level: 11 Credit 5/.5

Course Length: 1 Semester

Pre-requisites: None

Fees and Materials: None

The semester explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives.

US History

Grade Level: 10 Credit: 10/1 Unit

Course Length: 1 year

Pre-requisites: None

Fees and Materials: None

This course is designed to help students understand the events, issues, and personalities that shaped our history from Reconstruction to the end of World War I. The course looks at United States history from the multiple perspectives of this diverse and ethnically rich nation. Students will develop analytic skills in historical inquiry, problem solving, cause-and-effect synthesis, and evaluation of historic information. Students will also gain the skills and knowledge needed to understand various connections and interdependence of political, economic, technological, and philosophical aspects of United States' society.

IB History of the Americas 1 and 2 (HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: None

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

This course emphasizes the importance of encouraging students to think historically and to develop historical skills as well as gaining factual knowledge. It puts a premium on developing the skills of critical thinking, and on developing an understanding of multiple interpretations of history. In this way, the course involves a challenging and demanding critical exploration of the past. Teachers explicitly teach thinking and research skills such as comprehension, text analysis, transfer, and use of primary sources. There are six key concepts that have particular prominence throughout the DP history course: change, continuity, causation, consequence, significance and perspectives.

IB Global Politics 1 (SL)

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: IB Textbook (optional) Optional IB registration and testing fee for non-Diploma students)

The study of global politics enables students to critically engage with different and new perspectives and approaches to politics in order to comprehend the challenges of the changing world and become aware of their role in it as active global citizens. The course explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives.

IB Global Politics 1 (HL)

Grade Level: 11-12 Credit: 20/2 Unit

Course Length: 2 year

Prerequisites: None

Fees and Materials: IB Textbook (optional) Optional IB registration and testing fee for non-Diploma students)

The study of global politics enables students to critically engage with different and new perspectives and approaches to politics in order to comprehend the challenges of the changing world and become aware of their role in it as active global citizens. The course explores fundamental political concepts such as power, equality, sustainability and peace in a range of contexts. It allows students to develop an understanding of the local, national, international and global dimensions of political activity and processes, as well as to explore political issues affecting their own lives.

World Languages

French 1

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Pre-requisites: None

Fees and Materials: None

Students will be expected to demonstrate, through the use of authentic material, the skills of listening, speaking, reading and writing in everyday situations. These situations are defined by the core syllabus and the language specific syllabus.

French 2

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Pre-requisites: Placement Exam or French 1

Fees and Materials: None

French 2 continues to concentrate on the development of the language by improving the production of sounds and learned utterances, by expanding the understanding of what is heard, and by using basic but longer, more complicated speech patterns. Emphasis continues on proficiency-based development of listening and speaking skills. Language content continues to focus on meeting novice to intermediate-low survival needs. Students create with the language and get into, through, and out of real-life situations. Varied grammatical concepts within culturally appropriate settings are introduced.

French 3

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisites: Placement Exam or French 2

Fees and Materials: None

French 3 continues to emphasize the development of listening and speaking proficiency. There is increased emphasis on reading and writing for communication across a variety of topics. The study of grammar is more intensive with the continued practice of irregular verbs and the addition of higher level verb structures, including compound tenses and the subjunctive. Honors Option.

French 4

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisites: Placement Exam or French 3

Fees and Materials: None

French 4 continues to heighten the development of listening and speaking skills. There is an increased emphasis on reading and writing for communication across a variety of topics. The study of grammar focuses on review and refinement of previously taught structures. A continued awareness of the richness of cultural differences is stressed. Honors Option.

IB French Ab Initio

Grade Level: 9-12 Credit: 20/2 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

Develops students' writing, reading, listening and speaking abilities in French. Integrates these skills in the cultural contexts in which the language is used. Offers a foundation in the analysis of culture and develops intercultural communicative strategies.

IB French 3 and 4 (SL)

Grade Level: 11-12 Credits: 20/2 Unit

Course Length: 2 year

Pre-requisites: Placement Exam or French 2

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

IB French continues to heighten the development of reading, writing, listening and speaking skills. There is an increased emphasis on reading and writing for communication across a variety of topics. The study of grammar focuses on review and refinement of previously taught structures.

Mandarin Chinese 1

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Pre-requisites: None

Fees and Materials: None

Develops students' writing, reading, listening and speaking abilities in Mandarin. Integrates these skills in the cultural contexts in which the language is used. Offers a foundation in the analysis of culture and develops intercultural communicative strategies.

Mandarin Chinese 2

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Pre-requisites: Placement Exam or Mandarin 1

Fees and Materials: None

Mandarin Chinese 2 continues to concentrate on the development of the language by improving the production of sounds and learned utterances, by expanding the understanding of what is heard, and by using basic but longer, more complicated speech patterns. Emphasis continues on proficiency-based development of listening and speaking skills. Language content continues to focus on meeting novice to intermediate-low survival needs. Students create with the language and get into, through, and out of real-life situations. Varied grammatical concepts within culturally appropriate settings are introduced.

Mandarin Chinese 3

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisites: Placement Exam or Mandarin 2

Fees and Materials: None

Mandarin 3 continues student's learning, expanding topics through various classroom activities based on the prior two years. Listening and speaking proficiency are stressed and there is an increased emphasis on reading and writing of different topics. These abilities are integrated to help students develop the Chinese language to next level of fluency. Students will be exploring related topics, contexts, conversations, and Chinese culture through texts, Internet or other media. Honors Option.

Mandarin Chinese 4

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Pre-requisites: Placement Exam or Mandarin 3

Fees and Materials: None

Chinese 4 continues to emphasize the development of listening and speaking proficiency. There is increased emphasis on reading and writing for communication across a variety of topics. The study of grammar is more intensive with additional practice of higher level verb structures. Complex sentence structures and connected discourse move to higher levels. Honors Option.

IB Mandarin Chinese 3 and 4 (SL)

Grade Level: 11-12 Credits: 10/1 Unit

Course Length: 1 year

Pre-requisites: Placement Exam or Mandarin 2

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

IB Mandarin continues to heighten the development of reading, writing, listening and speaking skills. There is an increased emphasis on reading and writing for communication across a variety of topics. The study of grammar focuses on review and refinement of previously taught structures.

Spanish 1

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

Develops students' writing, reading, listening and speaking abilities in Spanish. Integrates these skills in the cultural contexts in which the language is used. Offers a foundation in the analysis of culture and develops intercultural communicative strategies.

Spanish 2

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisites: Placement Exam or Spanish 1

Fees and Materials: None

Spanish 2 continues to concentrate on the development of the language by improving the production of sounds and learned utterances, by expanding the understanding of what is heard, and by using basic but longer, more complicated speech patterns. Emphasis continues on proficiency-based development of listening and speaking skills. Language content continues to focus on meeting novice to intermediate-low survival needs. Students create with the language and get into, through, and out of real-life situations. Varied grammatical concepts within culturally appropriate settings are introduced.

Spanish 3

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisites: Placement Exam or Spanish 2

Fees and Materials: None

Spanish 3 continues to emphasize the development of listening and speaking proficiency. There is increased emphasis on reading and writing for communication across a variety of topics. The study of grammar is more intensive with the continued practice of irregular verbs and the addition of higher level verb structures, including compound tenses and the subjunctive. Honors Option.

Spanish 4

Grade Level: 9-12 Credits: 10/1 Unit
Course Length: 1 year
Prerequisites: Placement Exam or Spanish 3
Fees and Materials: None

Spanish 4 continues to heighten the development of listening and speaking skills. There is an increased emphasis on reading and writing for communication across a variety of topics. The study of grammar focuses on review and refinement of previously taught structures. A continued awareness of the richness of cultural differences is stressed. Honors Option.

IB Spanish Ab Initio

Grade Level: 9-12 Credit: 20/2 Unit
Course Length: 1 year
Prerequisites: None

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

Develops students' writing, reading, listening and speaking abilities in Spanish. Integrates these skills in the cultural contexts in which the language is used. Offers a foundation in the analysis of culture and develops intercultural communicative strategies.

IB Spanish 3, 4 and 5 (SL)

Grade Level: 11-12 Credits: 20/2 Unit
Course Length: 2 year
Prerequisites: Placement Exam or Spanish 2

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

IB Spanish continues to heighten the development of reading, writing, listening and speaking skills. There is an increased emphasis on reading and writing for communication across a variety of topics. The study of grammar focuses on review and refinement of previously taught structures.

Visual Art

AP Studio Art 2D (Drawing)

Grade Level: 11-12 Credit: 10/1 Unit
Course Length: 1 year
Prerequisites: 2 years of Art or teacher approval

Fees and Materials: \$40 plus the cost of any special materials as needed and AP Portfolio Examination fee.

The AP 2D Studio Drawing course is designed for students who are seriously interested in the practical experience of art and design. AP Studio art is not based on a written exam; instead, students submit a portfolio of 24 works for evaluation at the end of the school year to the AP College Board

Ceramics 1 Semester 1

Grade Level: 9-12 Credit: 5/.5 Unit
Course Length: Semester
Prerequisites: Design
Fees and Materials: \$20

This course introduces students to shape, form, Design, and a variety of techniques as they relate to the medium of clay. Students will learn terminology and experiment with specific projects such as hand building, throwing, design, and glazing techniques. The design of both functional and sculptural ceramics will be addressed.

Ceramics 1 Semester 2

Grade Level: 9-12 Credit: 5/.5 Unit
Course Length: Semester
Prerequisites: Design
Fees and Materials: \$20

This course reinforces previously learned concepts dealing with shape, form, and design as related to ceramics. Terminology is reviewed and expanded.

Ceramics 2

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: Year

Prerequisites: Ceramics I

Fees and Materials: \$20 per semester

This course continues to explore the use of clay bodies and glazes in order to synthesize design, form, color, surface treatment, and firing procedures. Students will work with intricate fabrication techniques as they relate to larger, more complex forms. Students will be encouraged to build forms from a strong design base with emphasis on personal expression and intuition. Knowledge of ceramics terminology will expand. The assembly of a photo portfolio documenting personal best works is recommended at the advanced levels. Emphasis will be on individual projects.

Design 1 Semester 1

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: None

Fees and Materials: \$15 per semester

This course offers the basic and fundamentals of both two and three-dimensional studies. Research and planning are an integral part of this class. Beginning drawing and sculpture techniques will be explored to develop a strong visual understanding of the elements and principles of design. There will be the use of mixed mediums, different textiles, and materials in order to explore, develop, and build a portfolio throughout the semester. Art history as well as contemporary artists will be incorporated when relevant to projects.

Design 1 Semester 2

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: None

Fees and Materials: \$15 per semester

This course offers the basics and fundamentals of sculpture and 3 dimensional designs. Research and planning are an integral part of this class. Different sculptural techniques will be explored to develop a strong visual understanding of the elements and principles of art and design. There will be the use of mixed mediums, different textiles, and materials in order to explore, develop and build multiple 3 dimensional projects throughout the semester. Art history as well as contemporary artist will be incorporated when relevant to projects.

Design 2

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Design 1 or Teacher Recommendation

Fees and Materials: \$30 per year

This course is a continuation of sculpture and 3 dimensional designs. Research and planning are an integral part of this class. Different sculptural techniques will be explored to develop a strong visual understanding of the elements and principles of art and design. There will be the use of mixed mediums, different textiles, and materials in order to explore, develop and build multiple 3 dimensional projects throughout the semester. Art history as well as contemporary artist will be incorporated when relevant to projects.

Digital Design

Grade Level: 10-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: None

Fees and Materials: \$20

This course is to develop or build the foundation of computer design using Adobe Photoshop. Students will learn computer illustration techniques, image manipulation, digital camera use, graphic design visual literacy, and the elements and principles of art in composition. Art historical movements will also be studied as they relate to student projects. Students will develop an e-portfolio containing their projects and personal career goals developed through guided practice and independent studies.

Drawing and Painting 1 Semester 1

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: None

Fees and Materials: \$15 per semester

Drawing is an essential step for all visual arts. This course will emphasize value in terms of lights and darks which create line, structure, volume, and space. The exploration of color mixing and color schemes will be included. The elements and principles of art will be presented through exploratory drawing and painting using various media, such as ebony, color pencil, paint, ink, pastels, and art papers.

Drawing and Painting 1 Semester 2

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: Drawing and Painting Sem 1

Fees and Materials: \$15 per semester

This course emphasizes in-depth exploration of texture, pattern, shape, balance and contrast in the development of finished compositions. Personal interpretation and emotional response to work will be encouraged. Students will critique and assemble a portfolio of best works.

Drawing and Painting 2

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Drawing and Painting 1

Fees and Materials: \$30 per year

This course is for students who have successfully completed Drawing and Painting I and want to improve on their artistic skills. Based upon the Visual Art Standards, students will be expected to produce a higher quality body of work with more emphasis on craftsmanship, aesthetic value and personal expression. The goal of this course is for students to create a quality body of work and explore their artistic skills using a variety of media for paint and drawing as the vehicle of expression and communication.

Photography

Grade Level: 10-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisites: Digital Design

Fees and Materials: \$20

This one semester elective course combines science and technology using camera and darkroom equipment, and the chemical processing of black-and-white film and prints to explore the characteristics of light and image formation. The structure and operation of the camera, enlarger, and lenses are related to image formation, exposure of light sensitive materials, and the production of a well composed print. The response of photographic emulsions to light is explored through manipulation of camera and darkroom equipment, chemical processing, and the characteristics of light sources.

IB Visual Arts 1 and 2 (SL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Pre-requisites: 2 years of art or teacher recommendation

Fees and Materials: IB Textbook, \$30 per year, plus the cost of any special materials as needed. Optional IB registration and testing fee for non-Diploma students.

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to study visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

IB Visual Arts 1 and 2 (HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Pre-requisites: 2 years of art or Teacher Recommendation

Fees and Materials: IB Textbook, \$30 per year, plus the cost of any special materials as needed. Optional IB registration and testing fee for non-Diploma students.

The IB Diploma Programme visual arts course encourages students to challenge their own creative and cultural

expectations and boundaries. It is a thought-provoking course in which students develop analytical skills in problem-solving and divergent thinking, while working towards technical proficiency and confidence as art-makers. In addition to exploring and comparing visual arts from different perspectives and in different contexts, students are expected to engage in, experiment with and critically reflect upon a wide range of contemporary practices and media. The course is designed for students who want to go on to further study of visual arts in higher education as well as for those who are seeking lifelong enrichment through visual arts.

Music

Instrumental Music

Beginning Orchestra

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$30 per year, instrumental rental and performance attire.

In this course students will be introduced to the violin, viola, cello, and bass instruments. Students will learn about the basics of music reading, theory, as well as composition and performance skills on string instruments. Repertoire includes a variety of genres, styles, historical periods and cultures. Students will continue to develop their music reading skills, knowledge of music theory as well as their compositional and performance skills on their instruments. They will prepare for 2-3 concerts throughout the year.

Chamber Strings

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Audition/Teacher Approval

Fees and Materials: \$30 per year, instrumental rental and performance attire.

This course will focus on performing, creating, and responding to a variety of literature and develop student musicianship skill and develop student musicianship skills to the high school proficiency level of (2.5 -3) by the end of the school year. They will prepare for 2-3 concerts throughout the year.

Ensemble Instrument

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$30 per year, instrumental rental and performance attire.

In this course students will be introduced to the brass, woodwind, and percussion instruments. Students will learn about the basics of music reading, theory, as well as composition and performance skills on string instruments. Repertoire includes a variety of genres, styles, historical periods and cultures. Students will continue to develop their music reading skills, knowledge of music theory as well as their compositional and performance skills on their instruments. They will prepare for 2-3 concerts throughout the year.

Vocal Music

Chamber Ensemble Bella Voce

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Audition - **Female Only**

Fees and Materials: Performance attire

This course provides students with little or no previous music experience a chance to learn the fundamentals of singing in a large group setting. Through performance of a repertoire that includes a variety of genres, styles, historical periods and cultures at a proficiency level of (1) according to the Colorado Music Standards Music Appendix. Students will also learn about singing with correct vocal production, as well as the basics of music reading, music theory, aesthetic valuation, and music composition. They will prepare for 2-3 concerts throughout the year., historical periods and cultures at a proficiency level of (2-3) according to the Colorado Music Standards Music Appendix. Students will also do deeper into the foundations of music theory and music composition. They will prepare for 2-3 concerts throughout the year.

Choir Mixed Beginning

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: Performance attire

This course provides students with little or no previous music experience a chance to learn the fundamentals of singing in a large group setting. Through performance of a repertoire that includes a variety of genres, styles, historical periods and cultures at a proficiency level of (1) according to the Colorado Music Standards Music Appendix. Students will also learn about singing with correct vocal production, as well as the basics of music reading, music theory, aesthetic valuation, and music composition. They will prepare for 2-3 concerts throughout the year.

Choir Mixed Intermediate

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Choir I or Teacher Approval

Fees and Materials: Performance attire

This course will build upon the skills learned in Choir/Mixed Beginning S1 & S2. Students will learn more advanced vocal production techniques and perform repertoire that includes a variety of genres, styles, historical periods and cultures at a proficiency level of (2-3) according to the Colorado Music Standards Music Appendix. Students will also do deeper into the foundations of music theory and music composition. They will prepare for 2-3 concerts throughout the year.

Beginning Male Choir

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None- **Male only**

Fees and Materials: Performance attire

This course provides students with little or no previous music experience a chance to learn the fundamentals of singing in a large group setting. Through performance of a repertoire that includes a variety of genres, styles, historical periods and cultures at a proficiency level of (1) according to the Colorado Music Standards Music Appendix. Students will also learn about singing with correct vocal production, as well as the basics of music reading, music theory, aesthetic valuation, and music composition. They will prepare for 2-3 concerts throughout the year.

Theatre

Theatre Arts I

Grade Level: 9 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

Introduction to Theatre encourages interest in the dramatic arts through historical context, acting, voice & diction, writing, and costume & set design. Students will learn the ins and outs of all aspects of theatre throughout the year through the lenses of performer, audience member, critic, and designer as they gain an appreciation for all aspects of mounting a performance.

Theatre Arts II

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 Year

Prerequisites: Introduction to Theatre or permission of instructor

Fees and Materials: None

Theatre Arts II continues to cultivate further interest in participation in theatre. The course emphasizes the history and development of the actor by analyzing script selections and approaches to the craft from key periods. This class offers a beginners guide to stage production and writing for the theatre with a culminating performance at the end of the year.

Theatre Production I

Grade Level: 10-12 Credit: 10/1 Unit Course Length: 1 Year

Prerequisites: Permission of instructor

Fees and Materials: None

This course focuses on setting up students for success in acting and directing techniques by applying and fine tuning skills through scene study. Advanced Theatre students study storytelling elements, various dramatic art forms, and genres of theatrical performance. As they progress, students will begin to analyze the fundamental elements of directing for the stage, and begin to develop their individual voice as a director. Students will prepare for two performances throughout the year. This course includes opportunities for both advanced actors and those interested in directing.

Theatre Arts Stagecraft Design 1

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$35

This year long course is meant to introduce the students to all aspects of Technical Theatre production with multiple hands-on opportunities and understanding of basic techniques. Students will participate in all phases of production including research, set construction, safety, lighting and sound design, costume design, make-up basics, and an introduction to business management.

Theatre Arts Stagecraft Design 2

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$35

This year long course is meant to introduce the students to all aspects of Technical Theatre production with multiple hands-on opportunities and understanding of basic techniques. Students will participate in all phases of production including research, set construction, safety, lighting and sound design, costume design, make-up basics, and an introduction to business management. Advanced students will focus on building, designing and supporting each main stage production.

IB Theatre Arts 1 and 2 (SL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: 2 years of Theatre Arts

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

Students research and examine the various contexts of at least one published play text and reflect on live theatre moments they have experienced as spectators. Students take part in the practical exploration of at least two contrasting published play texts and engage with the process of transforming a play text into action. Students direct at least one scene or section from one published play text which is presented to others. Students respond to at least one starting point and engage with the process of transforming it collaboratively into an original piece of theatre. Students participate in at least one production of a collaboratively created piece of original theatre, created from a starting point, which is presented to others. Students reflect on their own personal approaches, interests and skills in theatre. They research and examine at least one starting point and the approaches employed by one appropriate professional theatre company, and consider how this might influence their own personal approaches.

IB Theatre Arts 1 and 2 (HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Prerequisites: 2 years of Theatre Arts

Fees and Materials: Students will purchase the text and any special materials. (Optional IB registration and testing fee for non-Diploma students)

Students research and examine the various contexts of at least one published play text and reflect on live theatre moments they have experienced as spectators. Students take part in the practical exploration of at least two contrasting published play texts and engage with the process of transforming a play text into action. Students direct at least one scene or section from one published play text which is presented to others. Students respond to at least one starting point and engage with the process of transforming it collaboratively into an original piece of theatre. Students participate in at least one production of a collaboratively created piece of original theatre, created from a starting point, which is presented to others. Students reflect on their own personal approaches, interests and skills in theatre. They research and examine at least one starting point and the approaches employed by one appropriate professional theatre company, and consider how this might influence their own

personal approaches. At HL, students research and examine the various contexts of at least one theatre theorist. At HL, students practically explore at least one theatre theorist collaboratively and engage with the process of creating a piece of theatre based on their theory. At HL, students create, present and evaluate at least one theatre piece based on an aspect(s) of a theatre theorist's work they have explored.

Physical Education

Advanced Strength and Conditioning

Grade Level: 10-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisite: None

Fee and Material: PE Uniform (\$20)

This course reviews the fundamentals of health and skill related fitness components to provide for continued improvement and understanding of fitness principles. Students will learn to evaluate their strength training, muscular development goals and learn advanced concepts. It will incorporate the biomechanical and kinesiological factors which are important for understanding the function and proper techniques for execution of a wide variety of standard and advanced strength training and conditioning exercises. This class is developed for junior and senior students who want to engage in and study fitness at a more advanced level.

Fitness and Conditioning/Weight Training I

Grade Level: 9-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisite: None

Fee and Material: PE Uniform (\$20)

This course engages students in individual programs to increase strength, cardiovascular endurance, flexibility, agility and coordination. Activities presented include calisthenics, aerobic activities, circuit training and weight training. (Note: activities can be adopted for students with limitations.)

Team Sports and Lifetime Activities I

Grade Level: 9 Credits: 10/1 Unit

Course Length: 1 year

Prerequisite: None

Fee and Material: PE Uniform (\$20)

This course engages students in participation of activities, which give students a balance between those sports demanding teamwork, and those deemed to be potentially useful and enjoyable through life. Activities may include: in lifetime team and individual sports, team building activities, fitness, proper nutrition, and outdoor education. (Note: activities can be adopted for students with limitations.)

Team Sports and Lifetime Activities II

Grade Level: 10-12 Credits: 10/1 Unit

Course Length: 1 year

Prerequisite: None

Fee and Material: PE Uniform (\$20)

This course engages students in participation of activities which give students a balance between those sports demanding teamwork, and those deemed to be potentially useful and enjoyable throughout life.

Communications

CE COMM 1011: Fundamentals of Communication

CU Succeeds

Grade Level: 11 Credit: 5/.5 Unit (Elective)

Course Length: Semester

Prerequisites: Accuplacer

Fees and Materials: Textbook

This class introduces students to the principles of communication theory and practice, and focuses on notions of self-

identity, public communication, and the politics of language. This is a Guaranteed Transfer List course for Colorado schools. Students earn 3 college credits.

CE COMM 1021: Introduction to Media Studies

CU Succeeds

Grade Level: 11 Credit: 5/.5 Unit (Elective)

Course Length: Semester

Prerequisites: Accuplacer

Fees and Materials: Textbook

This class introduces students to the economy of the media, the analysis of media messages and new media technologies, and the ways popular culture influences our daily behavior. This is a Guaranteed Transfer List course for Colorado schools. Students earn 3 college credits.

Engineering

CTE Introduction to Engineering and Design

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 Year

Prerequisites: None

Fees and Materials: \$20 per semester

Engineering/Design Honors is an introductory course, which develops student problem solving skills, with emphasis placed upon the concept of developing three dimensional solid models. Students will work from sketching simple geometric shapes to applying a solid modeling computer software package. They will learn a problem solving design process and how it is used in industry to manufacture a product. The Computer Aided Design System (CAD) will also be used to analyze and evaluate the product design. The techniques learned and the equipment used will simulate what engineers are currently doing. Various design applications will be explored with discussion of possible career opportunities. Must pass PLTW college credit exam.

CTE Principles of Engineering

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisite: Introduction to Engineering & Design

Fees and Materials: \$20 per year

Principles of Engineering Honors is a broad based survey course designed to help students understand the field of engineering and engineering technology and its career possibilities. Students will develop engineering problem solving skills; and they will explore various engineering systems and manufacturing processes. The main emphasis is to experience theory by hands on problem solving. Must pass PLTW college credit exam.

CTE Engineering 3 (Civil Engineering and Architecture)

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisite: 2 years of Engineering

Fees and Materials: \$20 per year

This design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world. Inquiry and problem-solving are at the heart of the subject. DP design technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. A solution can be defined as a model, prototype, product or system that students have developed independently. DP design technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework.

CTE Engineering Design and Development (Engineering Capstone)

Grade Level: 12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisite: 3 years of Engineering

Fees and Materials: \$20 per semester

The students in Engineering Design and Development will work in teams of two to four to design and construct the solution to an engineering problem, applying the principles developed in the four preceding courses. The problem may be selected from a database of engineering problems, be a recognized national challenge or be an original engineering problem identified by the team and approved by the teacher. A journal will be maintained; each team delivers progress reports. The projects continue through two semesters. Must pass PLTW college credit exam

IB Design Technology (SL and HL)

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 2 years

Prerequisite: 3 years of Engineering

Fees and Materials: IB Textbook, \$30 per year and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

This design technology course aims to develop internationally minded people whose enhanced understanding of design and the technological world can facilitate our shared guardianship of the planet and create a better world. Inquiry and problem-solving are at the heart of the subject. DP design technology requires the use of the design cycle as a tool, which provides the methodology used to structure the inquiry and analysis of problems, the development of feasible solutions, and the testing and evaluation of the solution. A solution can be defined as a model, prototype, product or system that students have developed independently. DP design technology achieves a high level of design literacy by enabling students to develop critical-thinking and design skills, which they can apply in a practical context. While designing may take various forms, it will involve the selective application of knowledge within an ethical framework.

Computer Science

CTE Computer Science Essentials

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 Year

Prerequisite: None

Fees and Materials: None

Computer Science Essentials is a Project Lead The Way (PLTW) introductory Computer Science course in which students will use visual, block-based programming and seamlessly transition to text-based programming to create apps and develop websites, and learn how to make computers work together to put their design into practice. They will apply computational thinking practices, build their vocabulary, and collaborate just as computing professionals do to create products that address topics and problems important to them. One of the programming languages currently taught is Python.

AP Computer Science Principles

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Recommended- CTE Exploring Computer Science or CTE Computer Science Essentials

Fees and Materials: Materials as needed, AP exam fee

This course is designed to meet the requirements of AP Computer Science Principles exam. Advanced Placement Computer Science Principles can help you understand how computing and technology influence the world around you. Learn how to creatively address real-world issues while using the same tools and processes that artists, writers, computer scientists, and engineers use to bring ideas to life. The syllabus includes the fundamentals of computing, including problem solving, working with data, understanding the Internet, cybersecurity, and programming. The programming language currently taught is JavaScript.

AP Computer Science 1/2

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: Integrated Math I

Fees and Materials: Materials as needed, AP exam fee

This course is designed to meet the requirements of AP Computer Science A. The development of computer programs to solve problems is a skill fundamental to the study of Computer Science. A large part of this course is built around the development of computer programs or parts of programs that correctly solve a given problem. The course also emphasizes the design issues that make programs understandable, adaptable, and, when appropriate, reusable. In addition, an understanding of the basic hardware and software components of computer systems and the responsible and ethical use of these systems are integral parts of the course. The programming language currently taught is Java.

IB Computer Science (SL/HL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 year (SL) / 2 year (HL)

Pre-requisites: AP Computer Science Principles or AP Computer Science A

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

The IB DP Computer Science Standard Level (SL) and Higher Level (HL) Core syllabus requires an understanding of the fundamental concepts of computational thinking as well as knowledge of how computers and other digital devices operate. The HL syllabus extends the Core syllabus to include Abstract Data Structures, Resource Management and Control. Each course is underpinned by conceptual thinking, draws on a wide spectrum of knowledge, and enables and empowers innovation, exploration and the acquisition of further knowledge. Students study how Computer Science interacts with and influences cultures, society and how individuals and societies behave, and the ethical issues involved. During the course the student will develop computational solutions. This will involve the ability to: • identify a problem or unanswered question • design, prototype and test a proposed solution • liaise with clients to evaluate the success of the proposed solution and make recommendations for future developments. One of the programming languages currently taught is Java

Business

CTE Introduction to Business

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisite: None

Fees and Materials: None

This course focuses on the operation of the American business system. Covers: fundamentals of the economy, careers and opportunities, marketing, management, production, governmental regulations, tools of business, and social responsibilities.

CTE Entrepreneurship

Grade Level: 9-12 Credit: 5/.5 Unit

Course Length: Semester

Prerequisite: None

Fees and Materials: None

This course provides the student with advanced information and knowledge integration into the planning, financing, formulation, and operation of a Small Business. In the selected business the student will utilize accepted management practices, and accounting principles in managing risk and cash flow.

IB Business Management (SL)

Grade Level: 11-12 Credit: 10/1Unit

Course Length: 1 year

Pre-requisites: CTE Business or Entrepreneurship

Fees and Materials: IB Textbook and supplemental fees as needed. Optional IB registration and testing fee for non-Diploma students.

The business management course is designed to develop students' knowledge and understanding of business management theories, as well as their ability to apply a range of tools and techniques. Students learn to analyze, discuss and evaluate business activities at local, national and international levels. The course covers a range of organizations from all sectors, as well as the sociocultural and economic contexts in which those organizations operate. The course covers the key characteristics of business organization and environment, and the business functions of human resource management, finance and accounts, marketing and operations management. Through the exploration of six underpinning concepts (change, culture, ethics, globalization, innovation and strategy), the course allows students to develop a holistic understanding of today's complex business environment.

Biomedical/Sports Medicine

CTE Principles of Biomedical Science

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: None

Fees and Materials: \$25 per year

In the introductory course of the PLTW Biomedical Science program students explore concepts of biology and medicine to determine factors that led to the death of a fictional person.

CTE Human Body Systems

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Pre-requisites: CTE Principles of Biomedical Science

Fees and Materials: \$25 per year

In this specialization course for Project Lead the Way (PLTW), students explore the human body systems of communication, power, and movement. To do this, students are taught the body's components, tissues, molecules and cells, as well as concepts of homeostasis and body system defenses

CTE Medical Interventions

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: CTE Principles of Biomedical Science or CTE Human Body Systems

Fees and Materials: \$25 per year

This is the third course in the Project Lead the Way Biomedical Pathway. Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease.

CTE Biomedical Innovation

Grade Level: 11-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisites: CTE Medical Interventions or Human Body Systems

Fees and Materials: \$25 per year

In this specialization course for Project Lead the Way (PLTW), students are taught concepts of human physiology, medical innovation, water contamination, public health issues, molecular biology, and forensic autopsy. Students complete an independent project as a culminating activity.

IB Sports, Exercise and Health (SL)

Grade Level: 11-12 Credit: 20/2 Units

Course Length: 2 years

Pre-requisites: CTE Principles of Biomedical Science or CTE Human Body Systems

Fees and Materials: IB Textbook and supplemental materials as needed. Optional IB registration and testing fee for non-Diploma students.

The IB course in sports, exercise and health science standard level (SL) involves the study of the science that underpins physical performance. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition. Students cover a range of topics and carry out practical (experimental) investigations in both laboratory and field settings. This provides an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyze human performance. Where relevant, the course will address issues of international dimensions and ethics by considering sport, exercise and health relative to the individual in a global context.

Other Electives

Introduction to Debate Sem 1

Grade Level: 9-12 Credit: 5/.5

Course Length: semester

Prerequisite: None

Fees and Materials: None

This course introduces the basics in competitive debate. Students will learn all aspects of quality argumentation, as well as public speaking skills and research skills. Each student will be required to compete in two beginner tournaments in the fall, and are welcome to compete in more tournaments throughout the year.

Introduction to Debate Sem 2

Grade Level: 9-12 Credit: 5/.5

Course Length: Semester

Prerequisite: None

Fees and Materials: None

This course builds on the basics in competitive debate. Students will continue to learn all aspects of quality argumentation, as well as public speaking skills and research skills. Each student will be required to compete in tournaments throughout the semester.

Journalism / Newspaper Staff

Grade Level: 10-12 Credit: 10/1 Unit

Course Length: 1 year

Prerequisite: Application and passion for writing/written expression

Fees and Materials: None

Newspaper is the production class designed to provide students with the opportunity to gain practical journalistic experience through a monthly public that is read by classmates, faculty, and the community. Students write news, feature, investigative, and editorial articles. In addition, students gain experience in desktop publishing, editing, advertising, photography, and various layout techniques. Students maintain a high level of ethical and journalistic standards.

Office Assistant

Grade Level: 11-12 Credit: 2.5/.25 Unit

Course Length: 1 year

Prerequisite: On-track to graduate, plus 3.0 GPA

Fees and Materials: None

Students may apply to their Counselor to become an office assistant if they meet these criteria.

Student Government

Grade Level: 9-12 Credit: 10/1 Unit

Course Length: 1 year (up to 8 semesters)

Prerequisite: Elected by student body

Fees and Materials: None

Teaches the philosophy and role of the Student Government in the school community, along with individual duties and responsibilities. Students develop an effective public relations program and organize and manage a wide variety of school activities. They participate in leadership conferences, the orientation for new students, and the evaluation of council objectives.

Teacher Assistant

Grade Level: 11-12 Credit: 2.5/.25 Unit

Course Length: 1 year

Prerequisite: On-track to graduate, plus 3.0 GPA

Fees and Materials: None

Students may apply to their Counselor to become a teacher assistant if they meet these criteria.

Yearbook

Grade Level: 9-12 Credit: 10/1 Unit (Elective)

Course Length: 1 year

Prerequisites: None

Fees and Materials: None

This course is designed to produce a bound publication which covers, with photos and copy, the academic high school year. In addition to learning all the skills necessary for production, students accept financial responsibility and work within a budget.

IB Diploma Programme Specific Courses

IB Theory of Knowledge 1 and 2 (TOK)

Grade Level: 11-12 Credit: 10/1 Unit (Social Studies)

Course Length – 1 year

Fees and Materials: Supplemental materials as needed

This course is about critical thinking and inquiring into the process of knowing. The course examines how we know what we claim to know. It does this by encouraging students to analyze knowledge claims and explore knowledge questions.

IB Creativity, Action and Service (CAS)

Grade Level: 11-12 Credit: No DPS credit

Course Length – 2 years

Fees and Materials: Supplemental materials as needed

This is a self-directed course. Students are expected to work with NHS CAS Coordinator to complete all necessary hours.

IB Extended Essay (EE)

Grade Level: 11-12 Credit: No DPS credit

Course Length – 2 years

This is a self-directed course. Students are expected to work with a Northfield teacher to complete the necessary components of the Extended Essay as required by IB.