COURSE CATALOG

2018-2019 School Year

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Introduction

As a Texas Science, Technology, Engineering and Math (T-STEM) Academy, Da Vinci School for Science and the Arts has a ground-breaking teaching model focusing on science, technology, engineering, mathematics, and the arts. We offer students a framework that encourages lifelong learning through skills building, creativity, a sense of self-worth, and ethical values necessary to survive and grow in an ever-changing, diverse, global society.
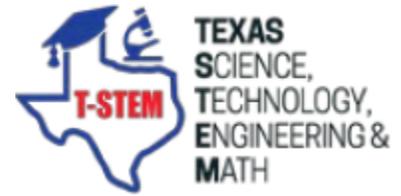
This course catalog seeks to provide students and their families, teachers, and support staff with the information they need to ensure students graduate on-time and ready to enroll in a four-year university.

For questions, comments, and concerns about courses and graduation, please contact the counselor:

Christina Buckrop
Academic Counselor
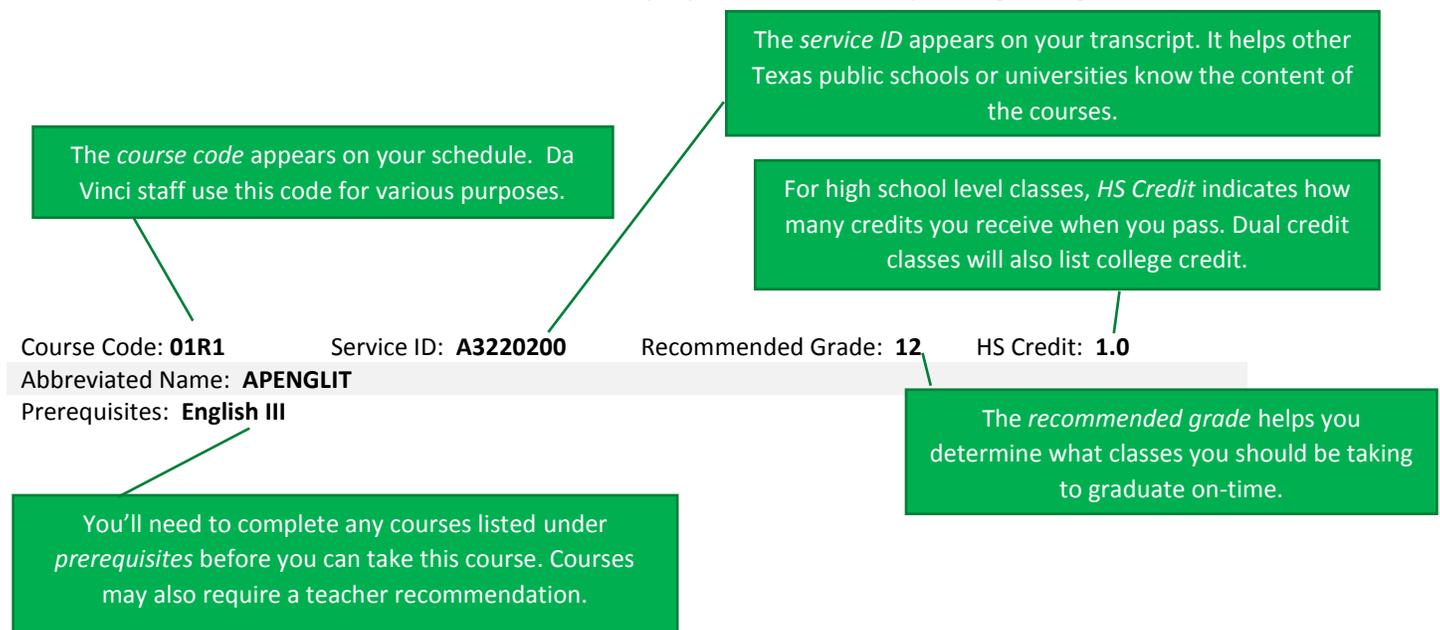Da Vinci School for Science and the Arts
785 Southwestern Drive
El Paso, TX 79912-1240
Phone: (915) 584-4024 Ext. 1051
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How to Read the Course Information

Each course contains information that is useful to different people. Here is an example using AP English IV:

> The *service ID* appears on your transcript. It helps other Texas public schools or universities know the content of the courses.

> The *course code* appears on your schedule. Da Vinci staff use this code for various purposes.

> For high school level classes, *HS Credit* indicates how many credits you receive when you pass. Dual credit classes will also list college credit.

Course Code: **01R1**   Service ID: **A3220200**   Recommended Grade: **12**   HS Credit: **1.0**
Abbreviated Name: **APENGLIT**
Prerequisites: **English III**

> The *recommended grade* helps you determine what classes you should be taking to graduate on-time.

> You'll need to complete any courses listed under *prerequisites* before you can take this course. Courses may also require a teacher recommendation.

Courses can be labelled as Pre-AP, AP, CTE, or DC.

- **Pre-AP** (Pre-Advanced Placement) courses have increased rigor over an equivalent standard course and prepare students for Advanced Placement courses.
- **AP** (Advanced Placement) courses have increased rigor over an equivalent standard course and tend to explore the subject matter in greater depth. Course standards are set by the College Board. AP courses prepare students for the AP Exam, which can grant students college credit.
- **CTE** (Career and Technical Education) courses are challenging classes designed to teach relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions. In addition, CTE courses will have an abbreviation indicating the cluster of courses. Depending on your endorsement, you want at least two to be within the same cluster. The clusters can be:

- o **AAVTC**: Arts, Audio/Video Technology, and Communications
- o **BMA**: Business Management and Administration
- o **IT**: Information Technology
- o **STEM**: Science, Technology, Engineering, and Mathematics
- **DC** (Dual Credit) courses are college courses offered to high school students. These courses provide credit at both the high school and college level. Note that these courses are very demanding, so you should not take more than two per semester. College credit can come from the University of Texas at Austin or the University of Texas Permian Basin. There are no tuition costs associated with taking dual credit courses for students enrolled at Da Vinci.

Graduation Plan

Following the Da Vinci graduation plan will ensure you graduate on-time. For the full graduation plan and non-credit graduation requirements, see the Parent-Student Handbook, which is available at the front office and on our website. For questions about graduation requirements, please contact the school counselor.

Minimum state-required courses appear underlined. Some courses may allow substitutions.

- **English Language Arts – 4.0 credits** (State minimum is 4.0 credits)
  - o Pre-AP English I
  - o Pre-AP English II
  - o AP English III or Dual Credit Research & Writing/Reading & Writing Rhetoric
  - o AP English IV or Dual Credit Research & Writing/Reading & Writing Rhetoric
- **Mathematics – 4.0-6.0 credits** (State minimum is 3.0 credits)
  - o Pre-AP Algebra I
  - o Pre-AP Geometry
  - o Pre-AP Algebra II
  - o Pre-AP Pre-Calculus or Dual Credit Discovery Pre-Calculus
  - o AP Calculus AB
  - o AP Statistics or Dual Credit Statistics
- **Science – 4.0 credits** (State minimum is 3.0 credits)
  - o Pre-AP Biology
  - o AP Chemistry
  - o Pre-AP Physics
  - o AP Environmental Science
  - o Earth, Wind & Fire: Introduction to Geoscience
- **Social Studies – 4.0 credits** (State minimum is 3.0 credits)
  - o Pre-AP World Geography
  - o Pre-AP World History
  - o AP US History or Dual Credit US History
  - o AP U.S. Government and Politics (0.5 credit)
  - o AP Microeconomics (0.5 credit)
- **Physical Education – 1.0 credit**
  - o Foundations of Personal Fitness
  - o Boys or Girls Athletics
- **Languages Other Than English – 3.0 credits in the same language*** (State minimum is 2.0 credits in the same language)
  - o Spanish I, Spanish II, AP Spanish III, and AP Spanish IV
  - o French I, French II, and French III
  - o * Note that this can be 2.0 credits in one language and 2.0 credits in a different language if you are seeking the Arts and Humanities endorsement
- **Electives** – (State minimums are 5.0 credits plus 1.0 credit in fine arts)
  - o **Technology Applications/Career & Technical Education** – 4.0 credits
    - ▪ Business Information Management
    - ▪ Computer Programming I

- ▪ Principles of Information Technology
- ▪ Digital Media
- ▪ Thriving in Our Digital World
- ▪ Web Technologies
  - o **Engineering** – 4.0 credits
    - ▪ Engineering Design and Presentation I
    - ▪ Engineering Design and Presentation II
    - ▪ Principles of Applied Engineering
    - ▪ Robotics I
    - ▪ Robotics II
  - o **Fine Arts** – 2.0-4.0 credits
    - ▪ Art I to III
    - ▪ Band I to III
    - ▪ Choir I to III
    - ▪ Dance I to III
    - ▪ Graphic Design
    - ▪ Guitar I to IV
    - ▪ Orchestra I to III
    - ▪ Theatre I to III
  - o **Other**
    - ▪ Journalism
    - ▪ Psychology (DC)
- **Speech** – Must demonstrate proficiency in speech skills, which can include a half-credit of Communication Applications
- **Non-Credit Requirements**
  - o Community Service – 30 hours at the same site
  - o Internship – 40 hours at the same site
  - o Senior Thesis or Capstone Project
  - o Acceptance to four-year university

In addition to the minimum courses, students can graduate with an endorsement and/or a distinguished level of achievement. Meeting the requirements for one or both increases your likelihood of being accepted at a four-year university.

Endorsements

Students can receive one or more endorsements, which indicate that the student is currently taking or took a series of related courses grouped by interest or skill set. To get any endorsement, students must:

- Meet the minimum graduation requirements as stated above.
- Earn at least 26 total credits.
- Earn four mathematics credits with the fourth credit being Pre-Calculus, Calculus, or Statistics
- Earn four science credits with the fourth credit being AP Environmental Science, Introduction to Geoscience, or Engineering Design and Problem Solving
- Earn two additional elective credits.

Da Vinci students following the standard graduation plan will graduate with an endorsement in Multi-Disciplinary Studies. Other important facts to know:

- Students choose an endorsement in the ninth grade in a meeting with the counselor. Students transferring from out-of-state or out-of-country schools, or students transferring from Texas private schools after ninth grade will pick their endorsement in their first year in a Texas public school.
- Students can take classes outside their endorsement if they are otherwise on track to complete their endorsement.
- Students can change their endorsement at any time.
- Students can have more than one endorsement, and credits used to satisfy the requirements of one endorsement can be used to satisfy the requirements of another. For example, if you have four credits of Spanish that are used to satisfy the

requirement for the Arts and Humanities endorsement, the AP Spanish III and IV credits can also be used to satisfy the AP course requirement for the Multidisciplinary Studies endorsement.

- An endorsement is not required for graduation. However, to graduate without an endorsement, the student and the student's parent or guardian must meet with the school counselor to discuss the ramifications and sign a form granting permission.
- An endorsement is required for automatic college admission. For more information about automatic college admission, see the Texas Education Agency website.

The requirements of each endorsement as it applies to Da Vinci are listed below.

Science, Technology, Engineering, and Mathematics (STEM)
To receive the STEM endorsement, students must meet the requirements to receive an endorsement as described above and at least one of the following requirements:

- Have four or more CTE credits. Two credits must be in the same cluster and the fourth credit must be in the STEM cluster.
- Complete five credits of math. The first three credits must be Algebra I, Geometry, and Algebra II. The final two credits can be selected from the following: Pre-Calculus, Discovery Pre-Calculus, AP Calculus AB, or Statistics. Note that you must complete Algebra I in eighth grade or take two math classes in one year to meet this requirement.
- Complete five credits in science. The first three credits must be Biology, Chemistry, and Physics. The final two credits can be selected from the following: Introduction to Geoscience, AP Environmental Science, Engineering Design and Problem Solving

Business and Industry
To receive the Business and Industry endorsement, students must meet the requirements to receive an endorsement as described above and meet the following requirement:

- Have four or more CTE credits. Two credits must be in the same cluster and the fourth credit must be in any of the following clusters: Arts, Audio/Video Technology, and Communications; Business Management and Administration; or Information Technology

Arts and Humanities
To receive the Arts and Humanities endorsement, students must meet the requirements to receive an endorsement as described above and meet at least one of the following requirements:

- Have four credits in the same language other than English. Note that you must pick Spanish to meet this requirement.
- Have two credits in a language other than English and have another two credits in a different language other than English. This would require taking two years of Spanish and two years of French.
- Have four credits in one or two areas of fine arts.

Multidisciplinary Studies
To receive the Multidisciplinary Studies endorsement, students must meet the requirements to receive an endorsement as described above and meet at least one of the following requirements:

- Four credits in English, mathematics, science, and social studies. Science credits must include chemistry and/or physics, and English credits must include English IV. Students on the standard Da Vinci graduation plan will meet this requirement.
- Four credits in Advanced Placement (AP) courses in any combination of English, mathematics, science, social studies, economics, languages other than English, or fine arts. Students on the standard Da Vinci graduation plan will meet this requirement.

Performance Acknowledgements

Students may also earn performance acknowledgements, which recognize outstanding performance in a variety of areas. Obtaining a performance acknowledgement is not a requirement to graduate but can make you more desirable to colleges and universities. For the complete list of performance acknowledgements and their requirements, see the school counselor.

- **Outstanding Performance in a Dual Credit Course:** Complete 12 or more college credits with a grade of 3.0 or higher on a four-point scale.
- **Outstanding Performance in Bilingualism and Biliteracy:** Complete all English classes with a grade of 80% or higher, and one of the following:
    - Three credits in the same language other than English where the final grades are 80% or higher
    - Completing level IV of a language other than English with a final grade of 80% or higher
    - Scoring 3 or higher on a College Board Advanced Placement exam for a language other than English

  For English Language Learners, you must also:
    - Participate in and meet the exit criteria for the Bilingual or English as a Second Language (ESL) program
    - Score at the Advanced High level on the Texas English Language Proficiency Assessment System (TELPAS) test
- **Outstanding Performance on a College Board Advanced Placement Test:** Score 3 or above on a College Board Advanced Placement examination.
- **Outstanding Performance on a College Preparation Assessment Instrument:** Meet one of the following:
    - Earn a score on the Preliminary SAT/National Merit Scholarship Qualifying Test (PSAT/NMSQT®) that qualifies the student as a commended scholar or higher by the College Board and National Merit Scholarship Corporation as part of the National Hispanic Recognition Program (NHRP) of the College Board or as part of the National Achievement Scholarship Program of the National Merit Scholarship Corporation.
    - Earn an ACT® readiness benchmark score on at least three of the five subject tests on the ACT Aspire™ examination.
    - Earn a total score of at least 1310 on the SAT®.
    - Earn a composite score on the ACT® exam of 28, excluding the writing subscore.

English Language Arts

English 6 (Pre-AP)

Course Code: **0161**   Service ID: **03200510**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **ELA READ 6**

Prerequisites: **None**

Students read and understand a wide variety of literary and informational texts. Students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail. Students learn how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information. Students listen and respond to the ideas of others while contributing their own ideas in conversations and groups. Students learn how to use the oral and written conventions of the English language in speaking and writing.

English 7 (Pre-AP)

Course Code: **0171**   Service ID: **03200520**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **ELA/READ7**

Prerequisites: **None**

Students read and understand a wide variety of literary and informational texts. Students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail. Students learn how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information. Students listen and respond to the ideas of others while contributing their own ideas in conversations and groups. Students learn how to use the oral and written conventions of the English language in speaking and writing. Students build on their prior knowledge and skills to strengthen their reading, writing, and oral language skills.

English 8 (Pre-AP)

Course Code: **0181**   Service ID: **03200530**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **ELA/READ8**

Prerequisites: **None**

Students read and understand a wide variety of literary and informational texts. Students compose a variety of written texts with a clear controlling idea, coherent organization, and sufficient detail. Students learn how to locate a range of relevant sources and evaluate, synthesize, and present ideas and information. Students listen and respond to the ideas of others while contributing their own ideas in conversations and groups. Students learn how to use the oral and written conventions of the English language in speaking and writing. Students build on their prior knowledge and skills to strengthen their reading, writing, and oral language skills.

English I (Pre-AP)

Course Code: **01F1**   Service ID: **03220100**   Recommended Grade: **9**   HS Credit: **1.0**

Abbreviated Name: **ENG 1**

Prerequisites: **None**

Students enrolled in Pre-AP English I will be provided background vocabulary, literary terminology, and skills for the study of the short story, non-fiction, poetry, and the novel. Emphasis is placed on analysis of reading selections, concentrating on Pre-AP skills such as the use of diction, imagery, and tone. STAAR reading and writing objectives are identified, incorporated into the curriculum, and reinforced throughout the semester. Using the writing process, students produce literary, descriptive, informative/expository, persuasive, and analytical paragraphs and essays. To enhance students' frames of reference, cultural literacy units are included. All Pre-AP courses provide a more in-depth coverage of concepts.

English II (Pre-AP)

Course Code: **01S1**   Service ID: **03220200**   Recommended Grade: **10**   HS Credit: **1.0**

Abbreviated Name: **ENG 2**

Prerequisites: **English I**

Students enrolled in English Pre-AP II will enrich their study of nonfiction, drama, poetry, and the novel. Using advanced vocabulary and sentence structure, students strengthen persuasive and imaginative writing techniques and produce documented reports. Emphasis on cultural literacy continues; Pre-AP skills are incorporated to enhance students' understanding and analysis of reading selections; and TAKS reading, writing, and interpretation objectives continue to be refined. All Pre-AP courses provide more in-depth coverage of concepts.

English III (AP)

Course Code: **01J1**   Service ID: **A3220100**   Recommended Grade: **11**   HS Credit: **1.0**
Abbreviated Name: **APENGLAN**   Also Known As: **AP English Language and Composition**
Prerequisites: **English II**

Advanced Placement English Language and Composition is a challenging course encompassing an in-depth study of major American literary periods from 1600-1890 (first semester) and 1890-present (second semester) and incorporates the study of tone, rhetoric, diction, imagery, language, and syntax. Students produce comparison-contrast compositions, dialectical journals, and critical, literary, and causal analysis. Vocabulary development and word relationships are addressed in preparation for the PSAT. Timed writings in preparation for the AP English Language and Composition Test are also practiced. The curriculum is designed by each AP teacher and approved by the College Board.

English IV (AP)

Course Code: **01R1**   Service ID: **A3220200**   Recommended Grade: **12**   HS Credit: **1.0**
Abbreviated Name: **APENGLIT**   Also Known As: **AP English Literature and Composition**
Prerequisites: **English III**

Advanced Placement English Literature and Composition engages students in an in-depth, accelerated, chronological study of British literary periods, students prepare for the Advanced Placement English Literature and Composition Test, which can provide college credit. Students enhance their writing skills by producing literary analyses and critical essays.

Research and Writing (DC)

Note that this course can be taken for English III or English IV credit. For English III credit:

Course Code: **01J2**   Service ID: **A3220100**   Recommended Grade: **11**   HS Credit: **0.5**
Abbreviated Name: **ENG 3**   College Credit: **3.00**
Prerequisites: **English I, English II, teacher recommendation**

For English IV credit:

Course Code: **01R3**   Service ID: **A3220200**   Recommended Grade: **12**   HS Credit: **0.5**
Abbreviated Name: **ENG 4**   College Credit: **3.00**
Prerequisites: **English I, English II, teacher recommendation**

Rhetoric of American Identity (DC)

Note that this course can be taken for English III or English IV credit. For English III credit:

Course Code: **01J3**   Service ID: **A3220100**   Recommended Grade: **11**   HS Credit: **0.5**
Abbreviated Name: **ENG 3**   College Credit: **3.00**
Prerequisites: **English I, English II, teacher recommendation**

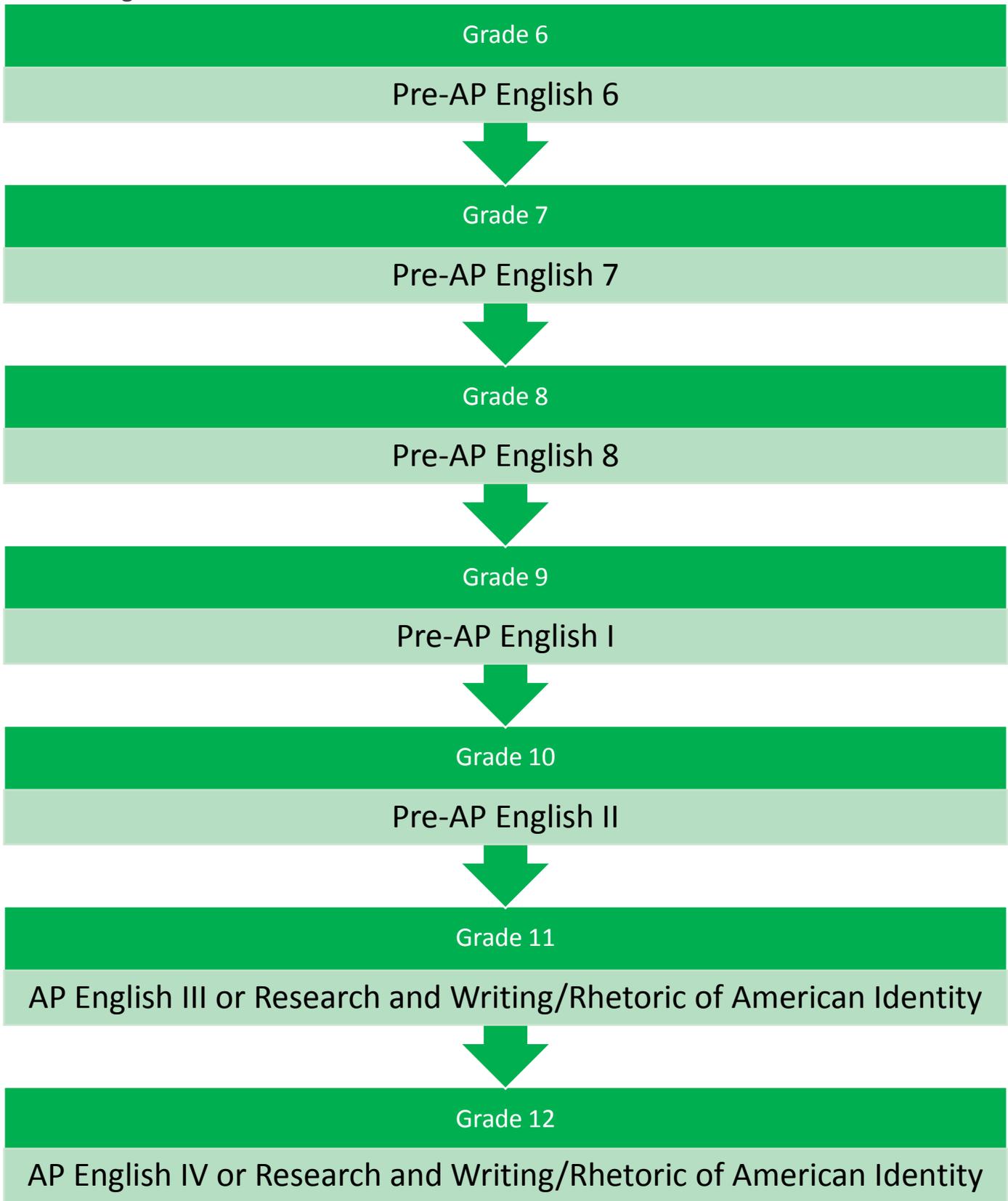For English IV credit:

Course Code: **01R4**   Service ID: **A3220200**   Recommended Grade: **12**   HS Credit: **0.5**
Abbreviated Name: **ENG 4**   College Credit: **3.00**
Prerequisites: **English I, English II, teacher recommendation**

Over the two courses (Research and Writing, and Rhetoric of the American Identity), students analyze the various positions held in any public debate and learn to advocate their own positions effectively. In the fall, students explore the ethics of argumentation and what it means to "fairly" represent someone with whom they disagree. In the spring, students analyze and compose arguments about American identity and identity formation, both personal and cultural. The goal is to foster students' abilities to analyze arguments presented by others and to write sound and effective arguments of their own.

Course Progression

Grade 6

Pre-AP English 6

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Grade 7

Pre-AP English 7

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Grade 8

Pre-AP English 8

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Grade 9

Pre-AP English I

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Grade 10

Pre-AP English II

↓

Grade 11

AP English III or Research and Writing/Rhetoric of American Identity

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Grade 12

AP English IV or Research and Writing/Rhetoric of American Identity

Mathematics

Math 6 (Pre-AP)

Course Code: **0361**   Service ID: **02640060**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **MATH GR 6**

Prerequisites: **None**

Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use concepts of proportionality to explore, develop, and communicate mathematical relationships. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other. Students connect verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations.

Math 7 (Pre-AP)

Course Code: **0371**   Service ID: **03103000**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **MATH GR 7**

Prerequisites: **None**

Students use concepts, algorithms, and properties of rational numbers to explore mathematical relationships and to describe increasingly complex situations. Students use concepts of proportionality to explore, develop, and communicate mathematical relationships, including number, geometry and measurement, and statistics and probability. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other. Students connect verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations.

Math 8 (Pre-AP)

Course Code: **0381**   Service ID: **03103100**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **MATH G-8**

Prerequisites: **None**

Students use concepts, algorithms, and properties of real numbers to explore mathematical relationships and to describe increasingly complex situations. Students use concepts of proportionality to explore, develop, and communicate mathematical relationships. Students use algebraic thinking to describe how a change in one quantity in a relationship results in a change in the other. Students connect verbal, numeric, graphic, and symbolic representations of relationships, including equations and inequalities. Students begin to develop an understanding of functional relationships. Students use geometric properties and relationships, as well as spatial reasoning, to model and analyze situations and solve problems. Students communicate information about geometric figures or situations by quantifying attributes, generalize procedures from measurement experiences, and use the procedures to solve problems. Students use appropriate statistics, representations of data, and reasoning to draw conclusions, evaluate arguments, and make recommendations.

Algebra I (Pre-AP)

Course Code: **0382**   Service ID: **03100500**   Recommended Grade: **8-9**   HS Credit: **1.0**

Abbreviated Name: **ALG 1**

Prerequisites: **Teacher recommendation for eighth graders, no prerequisites for ninth graders**

Students use symbols in a variety of ways to study relationships among quantities. Students use functions to determine one quantity from another, to represent and model problem situations, and to analyze and interpret relationships. Students work in many situations to set up equations and inequalities and use a variety of methods to solve them. Students use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to model mathematical situations to solve meaningful problems.

Geometry (Pre-AP)

Course Code: **03F2**   Service ID: **03100700**   Recommended Grade: **9-10**   HS Credit: **1.0**

Abbreviated Name: **GEOM**

Prerequisites: **Algebra I**

In Geometry, students will build on the knowledge and skills for mathematics in Kindergarten-Grade 8 and Algebra I to strengthen their mathematical reasoning skills in geometric contexts. Within the course, students will begin to focus on more precise terminology, symbolic representations, and the development of proofs. Students will explore concepts covering coordinate and transformational geometry; logical argument and constructions; proof and congruence; similarity, proof, and trigonometry; two- and three-dimensional figures; circles; and probability. Students will connect previous knowledge from Algebra I to Geometry through the coordinate and transformational geometry strand. In the logical arguments and constructions strand, students are expected to create formal constructions using a straight edge and compass. Though this course is primarily Euclidean geometry, students should complete the course with an understanding that non-Euclidean geometries exist. In proof and congruence, students will use deductive reasoning to justify, prove and apply theorems about geometric figures. Throughout the standards, the term "prove" means a formal proof to be shown in a paragraph, a flow chart, or two-column formats. Proportionality is the unifying component of the similarity, proof, and trigonometry strand. Students will use their proportional reasoning skills to prove and apply theorems and solve problems in this strand. The two- and three-dimensional figure strand focuses on the application of formulas in multi-step situations since students have developed background knowledge in two- and three-dimensional figures. Using patterns to identify geometric properties, students will apply theorems about circles to determine relationships between special segments and angles in circles. Due to the emphasis of probability and statistics in the college and career readiness standards, standards dealing with probability have been added to the geometry curriculum to ensure students have proper exposure to these topics before pursuing their post-secondary education.

Algebra II (Pre-AP)

Course Code: **03F1**   Service ID: **03100600**   Recommended Grade: **9-11**   HS Credit: **1.0**

Abbreviated Name: **ALG 2**

Prerequisites: **Algebra I**

Students study algebraic concepts and the relationships among them to better understand the structure of algebra. Students perceive functions and equations as means for analyzing and understanding a broad variety of relationships and as a useful tool for expressing generalizations. Students perceive the connections between algebra and geometry and use the tools of one to help solve problems in the other. Students use a variety of representations (concrete, pictorial, numerical, symbolic, graphical, and verbal), tools, and technology (including, but not limited to, calculators with graphing capabilities, data collection devices, and computers) to model mathematical situations to solve meaningful problems. As they do mathematics, students continually use problem-solving, language and communication, and reasoning (justification and proof) to make connections within and outside mathematics. Students also use multiple representations, technology, applications and modeling, and numerical fluency in problem-solving contexts.

Pre-Calculus (Pre-AP)

Course Code: **0382**   Service ID: **03101100**   Recommended Grade: **10-12**   HS Credit: **1.0**

Abbreviated Name: **PRE CALC**

Prerequisites: **Algebra I, Geometry, Algebra II**

The course approaches topics from a function point of view, where appropriate, and is designed to strengthen and enhance conceptual understanding and mathematical reasoning used when modeling and solving mathematical and real-world problems. Students systematically work with functions and their multiple representations. The study of Precalculus deepens students'

mathematical understanding and fluency with algebra and trigonometry and extends their ability to make connections and apply concepts and procedures at higher levels. Students investigate and explore mathematical ideas, develop multiple strategies for analyzing complex situations, and use technology to build understanding, make connections between representations, and provide support in solving problems.

Discovery Pre-Calculus (DC)

Course Code: **0382**	Service ID: **03101100**	Recommended Grade: **10-12**	HS Credit: **1.0**
Abbreviated Name: **PRE CALC**		College Credit: **3.00**	
Prerequisites: **Geometry, Algebra II, and teacher recommendation**			

Students will deepen and extend their knowledge of functions, graphs, and equations from their high school algebra and geometry courses, allowing them to successfully work with the concepts in a rigorous university-level calculus course.

Calculus AB (AP)

Course Code: **03J2**	Service ID: **A3100101**	Recommended Grade: **11-12**	HS Credit: **1.0**
Abbreviated Name: **APCALCAB**			
Prerequisites: **Pre-Calculus**			

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Statistics (AP)

Course Code: **03R2**	Service ID: **A3100200**	Recommended Grade: **12**	HS Credit: **1.0**
Abbreviated Name: **APSTATS**			
Prerequisites: **Algebra I, Algebra II, Geometry**			

The AP Statistics course is equivalent to a one-semester, introductory, non-calculus-based college course in statistics. The course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. There are four themes in the AP Statistics course: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding.
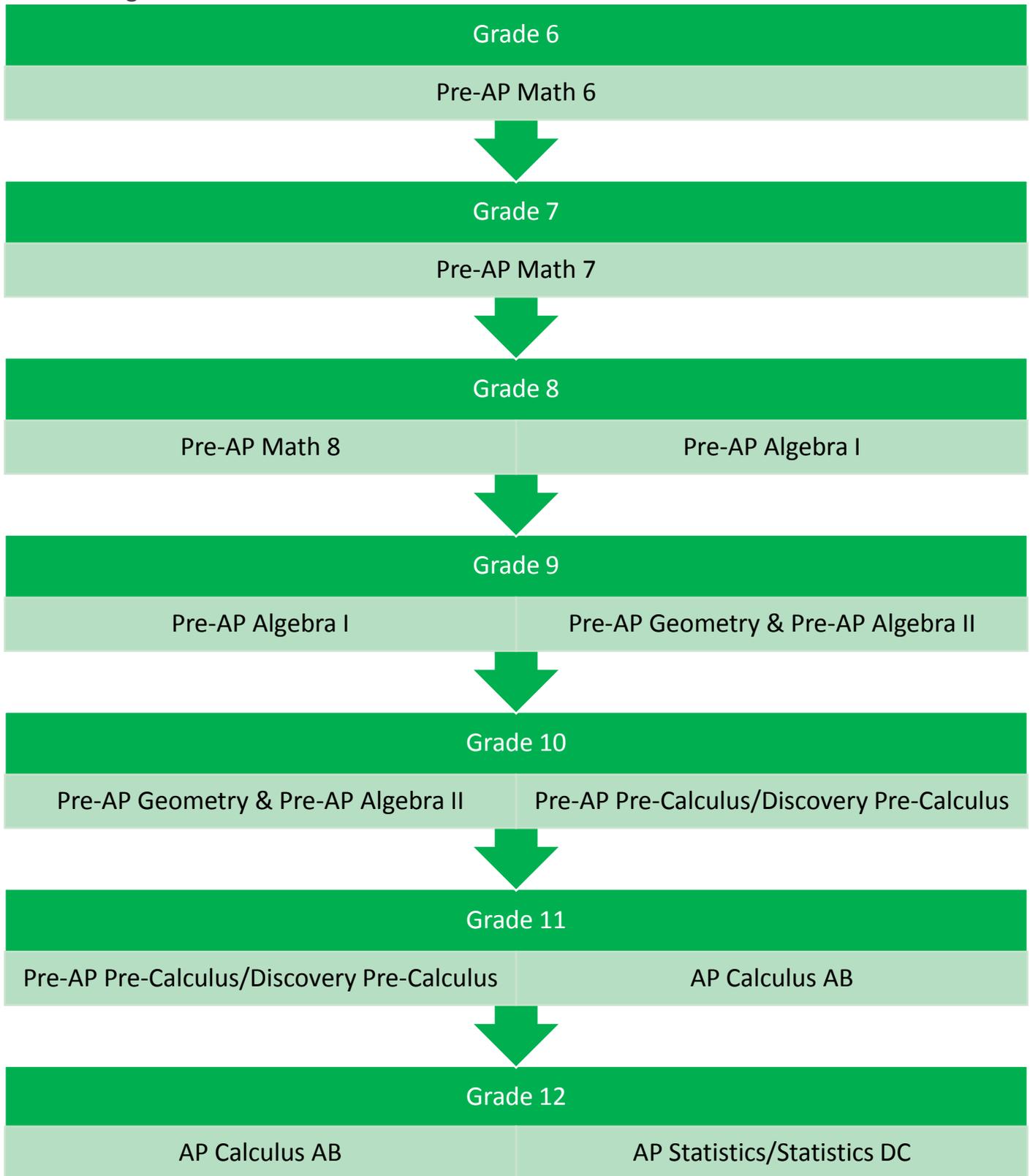
Statistics (DC)

Course Code: **03R3**	Service ID: **03102530**	Recommended Grade: **12**	HS Credit: **1.0**
Abbreviated Name: **STATS**		College Credits: **3.00**	
Prerequisites: **Algebra I, Algebra II, Geometry, and teacher recommendation**			

Students will broaden their knowledge of variability and statistical processes. Students will study sampling and experimentation, categorical and quantitative data, probability and random variables, inference, and bivariate data. Students will connect data and statistical processes to real-world situations. In addition, students will extend their knowledge of data analysis. As a dual-credit course, the subject matter is studied in greater depth and rigor.

Course Progression

Grade 6
Pre-AP Math 6

⬇

Grade 7
Pre-AP Math 7

⬇

Grade 8	
Pre-AP Math 8	Pre-AP Algebra I

⬇

Grade 9	
Pre-AP Algebra I	Pre-AP Geometry & Pre-AP Algebra II

⬇

Grade 10	
Pre-AP Geometry & Pre-AP Algebra II	Pre-AP Pre-Calculus/Discovery Pre-Calculus

⬇

Grade 11	
Pre-AP Pre-Calculus/Discovery Pre-Calculus	AP Calculus AB

⬇

Grade 12	
AP Calculus AB	AP Statistics/Statistics DC

Science

Science 6 (Pre-AP)

Course Code: **0461**   Service ID: **03060600**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **SCI G-6**

Prerequisites: **None**

Science in grade 6 is interdisciplinary, though primarily based on physical science. Students will develop a rich knowledge of science and the natural world, will learn to conduct scientific investigations, and will use knowledge about scientific investigations to understand the natural world. Students will expand on knowledge of matter from fifth grade to understand elements and compounds. Students will learn about types of energy and the relationship between force and motion. Students will learn about Earth, its place in the solar system, gravity, and space exploration. Students will be introduced to broad taxonomic classifications of organisms.

Science 7 (Pre-AP)

Course Code: **0471**   Service ID: **03060700**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **SCI G-7**

Prerequisites: **None**

Science in grade 7 is interdisciplinary, though primarily based on organisms and the environment. Students will develop a rich knowledge of science and the natural world, will learn to conduct scientific investigations, and will use knowledge about scientific investigations to understand the natural world. Students will learn about matter and energy conservation in living systems. Students will learn about the transformation of energy in living systems and the environment. Students will learn about characteristics of Earth, and relationships to other objects in our solar system that allow life to exist. Students will learn about organisms and their relationship to the environment, life cycles, and cells.

Science 8 (Pre-AP)

Course Code: **0481**   Service ID: **03060800**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **SCI G-8**

Prerequisites: **None**

Science in grade 8 is interdisciplinary, though primarily based on earth and space science. Students will develop a rich knowledge of science and the natural world, will learn to conduct scientific investigations, and will use knowledge about scientific investigations to understand the natural world. Students will learn about atoms, the Periodic Table, and chemical reactions. Students will learn about Newton's three laws and recognize these laws in everyday objects and activities. Students will learn about cycles involving the Earth, Sun, and Moon. Students will study how organisms and their populations respond to short- and long-term environmental changes.

Biology (Pre-AP)

Course Code: **04F1**   Service ID: **03010200**   Recommended Grade: **9**   HS Credit: **1.0**

Abbreviated Name: **BIO**

Prerequisites: **None**

In Pre-AP Biology, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students in Biology study a variety of topics that include: structures and functions of cells and viruses; growth and development of organisms; cells, tissues, and organs; nucleic acids and genetics; biological evolution; taxonomy; metabolism and energy transfers in living organisms; living systems; homeostasis; and ecosystems and the environment.

Chemistry (AP)

Course Code: **04J1**   Service ID: **A3040000**   Recommended Grade: **10**   HS Credit: **1.0**

Abbreviated Name: **AP-CHEM**

Prerequisites: **Algebra I, one credit of science**

AP Chemistry course provides students with a college-level foundation to support future advanced course work in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium.

Physics (Pre-AP)

Course Code: **04J1**   Service ID: **03050000**   Recommended Grade: **11**   HS Credit: **1.0**
Abbreviated Name: **PHYSICS**
Prerequisites: **Algebra I**

In Physics, students conduct laboratory and field investigations, use scientific methods during investigations, and make informed decisions using critical thinking and scientific problem solving. Students study a variety of topics that include: laws of motion; changes within physical systems and conservation of energy and momentum; forces; thermodynamics; characteristics and behavior of waves; and atomic, nuclear, and quantum physics. Students who successfully complete Physics will acquire factual knowledge within a conceptual framework, practice experimental design and interpretation, work collaboratively with peers, and develop critical thinking skills.

Environmental Science (AP)

Course Code: **04R3**   Service ID: **A3020000**   Recommended Grade: **12**   HS Credit: **1.0**
Abbreviated Name: **AP-ENVIR**
Prerequisites: **Biology, Chemistry**

The AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science, through which students engage with the scientific principles, concepts, and methodologies required to understand the interrelationships of 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.

Earth, Wind & Fire: Introduction to Geoscience (DC)
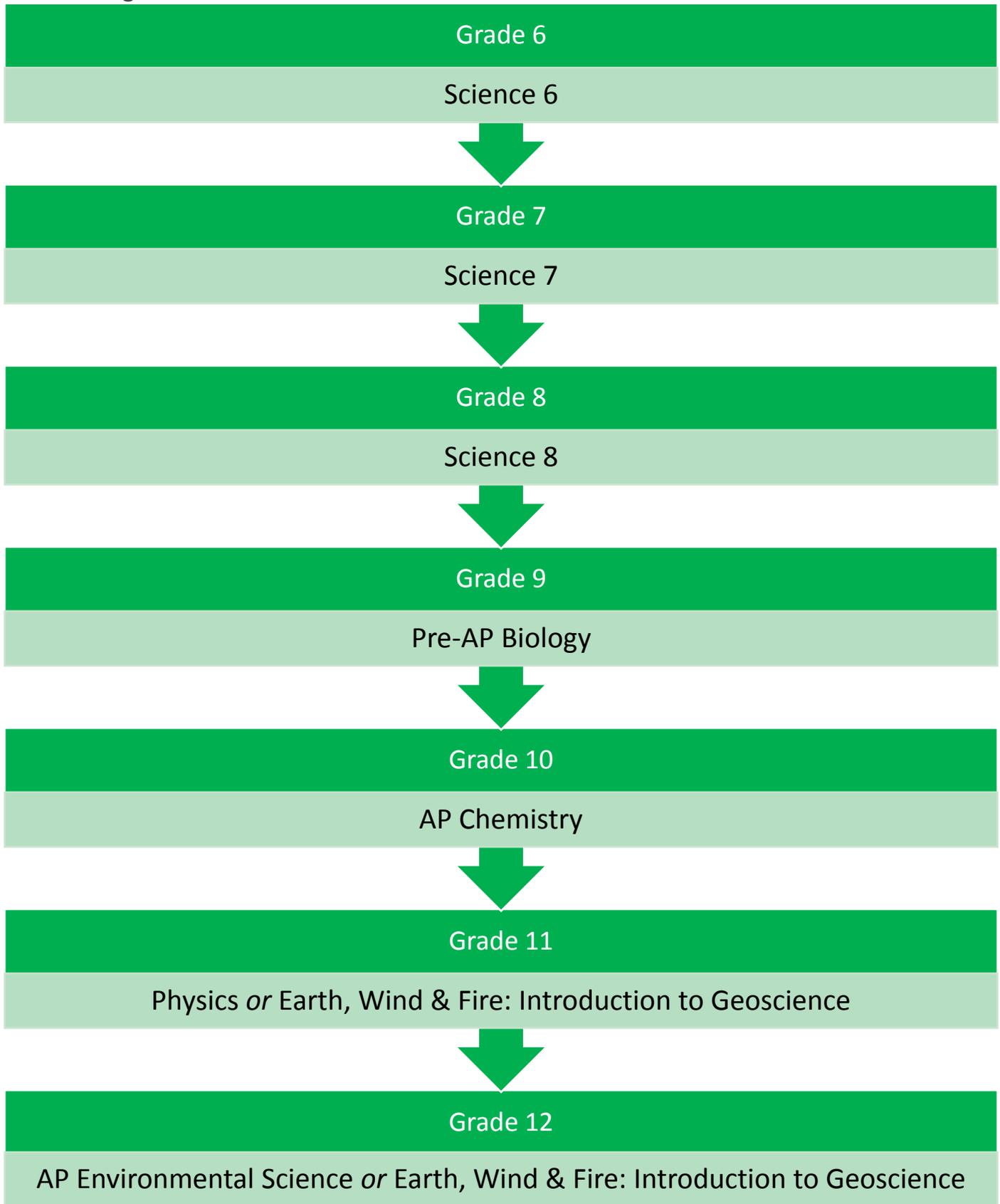
Course Code: **04R4**   Service ID: **03060200**   Recommended Grade: **11-12**   HS Credit: **1.0**
Abbreviated Name: **ESS**   College Credit: **3.00**
Prerequisites: **Biology, Chemistry; or Integrated Physics and Chemistry, Chemistry, and teacher recommendation**

This course covers the fundamentals of how the Earth works, and how its various systems – the lithosphere, atmosphere, hydrosphere, and biosphere – interact to form the complex world in which we live. This course introduces students to the major areas in geoscience and helps them develop critical, creative, and geologic problem-solving skills as applied to 21st century scientific problems.

Course Progression

Grade 6
Science 6

↓

Grade 7
Science 7

↓

Grade 8
Science 8

↓

Grade 9
Pre-AP Biology

↓

Grade 10
AP Chemistry

↓

Grade 11
Physics *or* Earth, Wind & Fire: Introduction to Geoscience

↓

Grade 12
AP Environmental Science *or* Earth, Wind & Fire: Introduction to Geoscience

Social Studies

Social Studies 6 (Pre-AP)

Course Code: **0561**   Service ID: **02660060**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **SOCST,G-6**

Prerequisites: **None**

In Grade 6, students study people, places, and societies of the contemporary world. Societies for study are from the following regions of the world: Europe, Russia and the Eurasian republics, North America, Central America and the Caribbean, South America, Southwest Asia-North Africa, Sub-Saharan Africa, South Asia, East Asia, Southeast Asia, Australia, and the Pacific realm. Students describe the influence of individuals and groups on historical and contemporary events in those societies and identify the locations and geographic characteristics of various societies. Students identify different ways of organizing economic and governmental systems. The concepts of limited and unlimited government are introduced, and students describe the nature of citizenship in various societies. Students compare institutions common to all societies such as government, education, and religious institutions. Students explain how the level of technology affects the development of the various societies and identify different points of view about events. The concept of frame of reference is introduced as an influence on an individual's point of view.

Social Studies 7 (Pre-AP)

Course Code: **0571**   Service ID: **03343000**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **SS G7**

Prerequisites: **None**

In Grade 7, students study the history of Texas from early times to the present. Content is presented with more depth and breadth than in Grade 4. Students examine the full scope of Texas history, including Natural Texas and its People; Age of Contact; Spanish Colonial; Mexican National; Revolution and Republic; Early Statehood; Texas in the Civil War and Reconstruction; Cotton, Cattle, and Railroads; Age of Oil; Texas in the Great Depression and World War II; Civil Rights and Conservatism; and Contemporary Texas eras. The focus in each era is on key individuals, events, and issues and their impact. Students identify regions of Texas and the distribution of population within and among the regions and explain the factors that caused Texas to change from an agrarian to an urban society. Students describe the structure and functions of municipal, county, and state governments, explain the influence of the U.S. Constitution on the Texas Constitution, and examine the rights and responsibilities of Texas citizens. Students use primary and secondary sources to examine the rich and diverse cultural background of Texas as they identify the different racial and ethnic groups that settled in Texas to build a republic and then a state. Students analyze the impact of scientific discoveries and technological innovations on the development of Texas in various industries such as agricultural, energy, medical, computer, and aerospace. Students use primary and secondary sources to acquire information about Texas.

Social Studies 8 (Pre-AP)

Course Code: **0581**   Service ID: **03343100**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **SS G8**

Prerequisites: **None**

In Grade 8, students study the history of the United States from the early colonial period through Reconstruction. The knowledge and skills in subsection (b) of this section comprise the first part of a two-year study of U.S. history. (The second part is the high school U.S. History course.) The content in Grade 8 builds upon that from Grade 5 but provides more depth and breadth. Historical content focuses on the political, economic, religious, and social events and issues related to the colonial and revolutionary eras, the creation and ratification of the U.S. Constitution, challenges of the early republic, the Age of Jackson, westward expansion, sectionalism, Civil War, and Reconstruction. Students describe the physical characteristics of the United States and their impact on population distribution and settlement patterns in the past and present. Students analyze the various economic factors that influenced the development of colonial America and the early years of the republic and identify the origins of the free enterprise system. Students examine the American beliefs and principles, including limited government, checks and balances, federalism, separation of powers, and individual rights, reflected in the U.S. Constitution and other historical documents. Students evaluate the impact of Supreme Court cases and major reform movements of the 19th century and examine the rights and responsibilities of

citizens of the United States as well as the importance of effective leadership in a constitutional republic. Students evaluate the impact of scientific discoveries and technological innovations on the development of the United States. Students use critical-thinking skills, including the identification of bias in written, oral, and visual material.

World Geography (Pre-AP)

Course Code: **05F1**   Service ID: **03320100**   Recommended Grade: **9**   HS Credit: **1.0**
Abbreviated Name: **W GEO**
Prerequisites: **None**

Students will examine people, places, and environments at local, regional, national, and international scales from the spatial and ecological perspectives of geography. Students will describe the influence of geography on events of the past and present with emphasis on contemporary issues. The course will center around the physical processes that shape patterns in the physical environment; the characteristics of major landforms, climates, and ecosystems and their interrelationships; the political, economic, and social processes that shape cultural patterns of regions; types and patterns of settlement; the distribution and movement of the world population; relationships among people, places, and environments; and the concept of region. Students analyze how location affects economic activities in different economic systems. Students identify the processes that influence political divisions of the planet and analyze how different points of view affect the development of public policies. Students compare how components of culture shape the characteristics of regions and analyze the impact of technology and human modifications on the physical environment. Students use problem-solving and decision-making skills to ask and answer geographic questions. Students will use of a variety of primary and secondary source material such as contemporary and historic maps of various types, satellite-produced images, photographs, graphs, map sketches, and diagrams is encouraged to support their understanding of the essential knowledge and skills as outline on 19 TAC Chapter 113.43. As a Pre-AP course, the content is studied in greater depth and may include additional topics and projects.

World History (Pre-AP)

Course Code: **05S1**   Service ID: **03340400**   Recommended Grade: **10**   HS Credit: **1.0**
Abbreviated Name: **W HIST**
Prerequisites: **None**

The major emphasis is on the study of significant people, events, and issues from the earliest times to the present. Traditional historical points of reference in world history are identified as students analyze important events and issues in western civilization as well as in civilizations in other parts of the world. Students evaluate the causes and effects of political and economic imperialism and of major political revolutions since the 17th century. Students examine the impact of geographic factors on major historic events and identify the historic origins of contemporary economic systems. Students analyze the process by which constitutional governments evolved as well as the ideas from historic documents that influenced that process. Students trace the historical development of important legal and political concepts. Students examine the history and impact of major religious and philosophical traditions. Students analyze the connections between major developments in science and technology and the growth of industrial economies, and they use the process of historical inquiry to research, interpret, and use multiple sources of evidence. The following periods should serve as the framework for the organization of this course: 8000 BC-500 BC (Development of River Valley Civilizations); 500 BC-AD 600 (Classical Era); 600-1450 (Post-classical Era); 1450-1750 (Connecting Hemispheres); 1750-1914 (Age of Revolutions); and 1914-present (20th Century to the Present). Students will be exposed to a variety of rich primary and secondary source material such as state papers, legal documents, charters, constitutions, biographies, autobiographies, speeches, letters, literature, music, art, and architecture is encouraged. As a Pre-AP course, the content is studied in greater depth and may include additional topics and projects.

US History (AP)

Course Code: **05J2**   Service ID: **A3340100**   Recommended Grade: **11**   HS Credit: **1.0**
Abbreviated Name: **APUSHIST**
Prerequisites: **None**

The AP U.S. History course focuses on the development of historical thinking skills (chronological reasoning, comparing and contextualizing, crafting historical arguments using historical evidence and interpreting and synthesizing historical narrative) and the

development of student's abilities to think conceptually about U.S. history from approximately 1491 to the present. Seven themes of equal importance – American and National Identity; Migration and settlement; Politics and Power; Work, Exchange, and Technology; America in the World; Geography and the Environment; and Culture and Society – provide areas of historical inquiry for investigation throughout the course. These require students to reason historically about continuity and change over time and make comparisons among various historical developments in different times and places.

US History 1492-1865/US History Since 1865 (DC)

Course Code: **05J3**　　　Service ID: **03340100**　　　Recommended Grade: **11**　　HS Credit: **1.0**
Abbreviated Name: **US HIST**　　　　　　　　　　　　College Credit: **6.00**
Prerequisites: **English II completed or taken concurrently**

Students study significant themes in U.S. History to uncover the range and depth of the American story. Using lectures, primary and secondary readings, videos, maps, and other graphics, students work both independently and collaboratively to develop the critical thinking skills to evaluate the historical record. The first semester runs from the colonial beginnings through the Civil War; the second half considers the post-Civil War era through the end of the 20th century. Exams include essay questions that require students to craft well-written narratives and arguments that set events in historical context, engage the complexity of cause and consequence, and make connections that reveal the dynamic of change over time.

Psychology (DC)

Course Code: **D103**　　　Service ID: **03350100**　　　Recommended Grade: **11-12**　　HS Credit: **1.0**
Abbreviated Name: **PSYCH**　　　　　　　　　　　　College Credit: **3.00**
Prerequisites: **None**

Students study the science of behavior and mental processes. Students examine the full scope of the science of psychology, such as the historical framework, methodologies, human development, motivation, emotion, sensation, perception, personality development, cognition, learning, intelligence, biological foundations, mental health, and social psychology.

United States Government and Politics (AP)

Course Code: **05R3**　　　Service ID: **A3330100**　　　Recommended Grade: **12**　　HS Credit: **0.5**
Abbreviated Name: **APUSGOVT**
Prerequisites: **None**

AP United States Government and Politics introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes through which students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments.
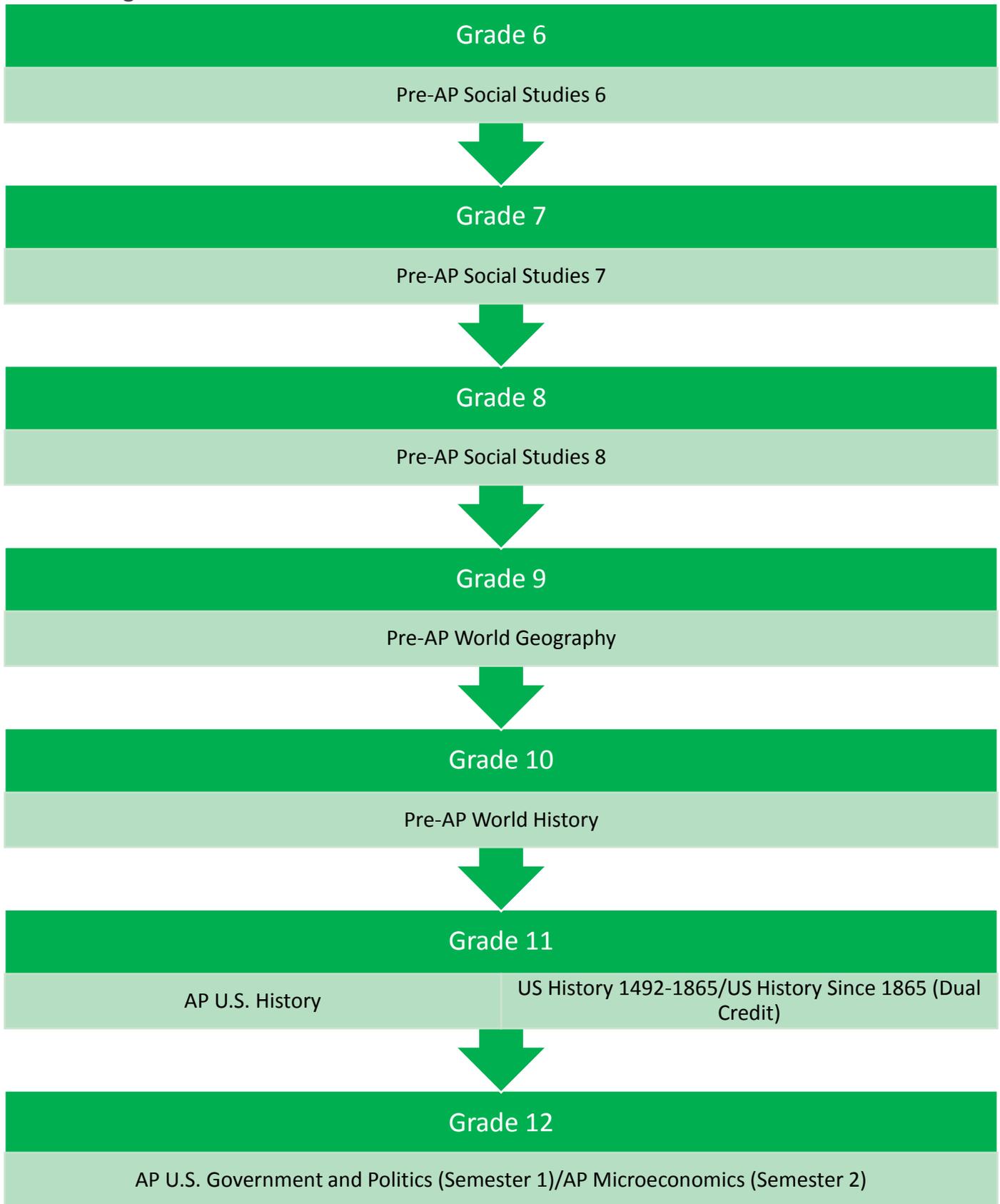
Microeconomics (AP)

Course Code: **05R4**　　　Service ID: **A3310100**　　　Recommended Grade: **12**　　HS Credit: **0.5**
Abbreviated Name: **APMICECO**
Prerequisites: **None**

AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts.

Course Progression

Grade 6
Pre-AP Social Studies 6

Grade 7
Pre-AP Social Studies 7

Grade 8
Pre-AP Social Studies 8

Grade 9
Pre-AP World Geography

Grade 10
Pre-AP World History

Grade 11	
AP U.S. History	US History 1492-1865/US History Since 1865 (Dual Credit)

Grade 12
AP U.S. Government and Politics (Semester 1)/AP Microeconomics (Semester 2)

Speech

Communication Applications

Course Code: **0182**   Service ID: **03241400**   Recommended Grade: **11**   HS Credit: **0.5**

Abbreviated Name: **COMMAPP**

Prerequisites: **None**

In this class, students will understand and develop communication skills, which will benefit them in professional and personal relationships. These skills include sending verbal messages, choosing effective non-verbal behaviors, listening for desired communication results, the application of valid critical thinking and problem-solving processes, and presentation skills. This course is designed to prepare students who are ready to go into the workplace. While this is not a course in public speaking, oral presentations will be required. Passing this course counts as demonstrating proficiency in speech skills, which is a state requirement for graduation.

Languages Other Than English

French I

Course Code: **10F1**   Service ID: **03410100**   Recommended Grade: **8-9**   HS Credit: **1.0**

Abbreviated Name: **FREN 1**

Prerequisites: **None**

At the novice proficiency level, this course introduces students to the four basic skills of language learning (listening, speaking, reading and writing). Strong focus is also placed on developing the three modes of communication: presentational, interpretive and interpersonal, with both the teacher and student using the French language as much as is possible at this stage of language learning. Students in Level 1 also develop appropriate grammatical concepts and learn about the culture and people who speak the French language. Students will use the skills of listening, speaking, and writing to reinforce their reading skills in the target language.

French II

Course Code: **10F4**   Service ID: **03410200**   Recommended Grade: **9-10**   HS Credit: **1.0**

Abbreviated Name: **FREN 2**

Prerequisites: **French I**

Level 2 continues skill development in the four basic skill areas. Strong focus is also placed on developing the three modes of communication: presentational, interpretive and interpersonal, with both the teacher and student using the French language as much as is possible at this stage of language learning. The course reviews and refines grammatical concepts and increases students' cultural knowledge. Students use the skills of listening, speaking, and writing to reinforce reading in the target language.

French III

Course Code: **10F7**   Service ID: **03410300**   Recommended Grade: **10-11**   HS Credit: **1.0**

Abbreviated Name: **FREN 3**

Prerequisites: **French II**

This is a rigorous course taught almost entirely in the French language, focusing on maximizing fluency in reading and listening comprehension, speaking, and writing of the French language. Additional in-depth studies of francophone culture and of French-speaking people throughout the world are included. This course provides students with a strong focus on developing the three modes of communication: presentational, interpretive and interpersonal, with both the teacher and student using the language as much as is possible at this stage of language learning.

Spanish I

Course Code: **10A1**   Service ID: **03440100**   Recommended Grade: **8-9**   HS Credit: **1.0**

Abbreviated Name: **SPAN 1**

Prerequisites: **None**

This course is an introduction to the Spanish language, grammar, and Hispanic cultures while developing the skills in listening and reading comprehension, speaking, and writing. The main goal for this course is for students to progress toward a novice-high level ability in using Spanish in school and in the community. A strong focus is also placed on developing the three modes of communication: presentational, interpretive and interpersonal, with both the teacher and student using the target language as much as is possible at this stage of language learning. Students in Level 1 also develop appropriate grammatical concepts and learn about the culture and people who speak the target language.

Spanish II

Course Code: **10A2**   Service ID: **03440200**   Recommended Grade: **9-10**   HS Credit: **1.0**

Abbreviated Name: **SPAN 2**

Prerequisites: **Spanish I**

Level 2 continues skill development in the four basic skill areas: listening, speaking, reading and writing in the target language. In this course students expand their ability to perform all the functions developed in Level 1. They also develop the ability to make requests, express needs, understand and express important ideas and details, describe, compare, and use and understand expressions indicating emotions.

Spanish III (AP)

Course Code: **10A0**   Service ID: **A3440100**   Recommended Grade: **10-11**   HS Credit: **1.0**

Abbreviated Name: **APSPALAN**   Also Known As: **AP Language and Culture – Spanish Language**

Prerequisites: **Spanish II or equivalent proficiency**

This course helps prepare students for the AP Spanish Language Exam. Students take part in extensive grammar and literary analysis.

Spanish IV (AP)

Course Code: **10A8**   Service ID: **A3440200**   Recommended Grade: **11-12**   HS Credit: **1.0**

Abbreviated Name: **APSPALIT**   Also Known As: **AP Language and Culture – Spanish Literature**

Prerequisites: **Spanish III or equivalent proficiency**

This course helps prepare students for the AP Spanish Literature Exam. Students are required to read and analyze college-level reading material ranging from the Medieval Age to current works. This course is intended for students who are genuinely interested in literature, and can read, write, and discuss the reading material in Spanish.

Fine Arts

Art 6

Course Code: **0661**   Service ID: **03154110**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **ART1 MS**

Prerequisites: **None**

Students create original artwork from direct observation, original sources, personal experiences, and communities. Students learn about art history and culture. Students respond to and analyze the artwork of others, develop a portfolio, and understand proper exhibition etiquette.

Art 7

Course Code: **0671**   Service ID: **03154210**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **ART2 MS**

Prerequisites: **None**

Students create original artwork from direct observation, original sources, personal experiences, and communities. Students analyze the ways that global, cultural, historical, and political issues influence artwork. Students respond to and analyze the artwork of others, develop a portfolio, and understand proper exhibition etiquette.

Art 8

Course Code: **0681**   Service ID: **03154310**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **ART3 MS**

Prerequisites: **None**

Students create original artwork from direct observation, original sources, personal experiences, and communities. Students analyze the cultural ideas expressed in artwork relating to social, political, and environmental themes. Students respond to and analyze the artwork of others, develop a portfolio, and understand proper exhibition etiquette.

Art I

Course Code: **06A1**   Service ID: **03500100**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **ART 1**

Prerequisites: **None**

This is an introductory course in which students will learn how to use the elements and principles of art and apply them using a variety of two- and three-dimensional art media (art production). This will include drawing, painting, print making, sculpture, ceramics, and fibers. Students will study the historical and cultural influences on art (art history). They will also explore the philosophical nature of art (aesthetic) and learn how to make critical judgments about art (art criticism). There will be periodic quizzes and tests to check for understanding. Students are responsible for purchasing and maintaining a set of art supplies.

Art II, Drawing I

Course Code: **06A2**   Service ID: **03500500**   Recommended Grade: **10-12**   HS Credit: **1.0**

Abbreviated Name: **ART2DRAW**

Prerequisites: **Art I**

This course offers an introduction in a variety of drawing media and techniques. Students will be expected to utilize the information and skills learned in the first level of art. This course emphasizes skill-building and problem solving, however the course also addresses the practical, cultural, and historical aspects of drawing. There will be periodic quizzes and tests to check for understanding. Students are responsible for purchasing and maintaining a set of art supplies.

Art III, Drawing II

Course Code: **06A4**   Service ID: **03501300**   Recommended Grade: **11-12**   HS Credit: **1.0**

Abbreviated Name: **ART3DRAW**

Prerequisites: **Art II, Drawing I**

This course continues instruction in a variety of drawing media and techniques. Students will be expected to utilize the information skills that were learned in Art II, Drawing I. Emphasis is on skill building, creative problem solving, and developing a portfolio. The practical, cultural, and historical aspects of drawing will also be addressed. Students will be responsible for purchasing and maintaining a set of art supplies.

Band 6

Course Code: **0761**   Service ID: **03154130**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **MUS1BND MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students make music at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Band 7

Course Code: **0771**   Service ID: **03154230**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **MUS2BND MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students make music at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Band 8

Course Code: **0781**   Service ID: **03154330**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **MUS3BND MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students make music at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Band I

Course Code: **07A1**   Service ID: **03150100**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **MUS1BAND**

Prerequisites: **None**

Students learn to read music literature and apply their knowledge and skills to developing proficiency on a chosen instrument. Students independently read new materials and sing and/or play them. Technical expectations include performing scales from

memory; reading and playing music with dotted eighth and sixteenth notes, syncopation, compound and asymmetrical meters; and performing assigned parts in moderately easy to moderately difficult literature.

Band II

Course Code: **07A2**　　　　Service ID: **03150200**　　　Recommended Grade: **10-12**　　HS Credit: **1.0**
Abbreviated Name: **MUS2BAND**
Prerequisites: **Band I**

The class focus is on student performance as part of a band. As students gain greater independence in lines of their score, they recognize that an increased understanding of the complexity of rhythmic and harmonic concepts is necessary. They understand each part separately and as an integral component of the whole composition.

Band III

Course Code: **07A3**　　　　Service ID: **03150300**　　　Recommended Grade: **11-12**　　HS Credit: **1.0**
Abbreviated Name: **MUS3BAND**
Prerequisites: **Band II**

Students illustrate harmonic texture and complexity in more advanced rhythm and meter. Chordal structure is expanded with music that includes atonality and freely composed segments representative of diverse styles of modern composition.

Choir 6

Course Code: **0761**　　　　Service ID: **03154131**　　　Recommended Grade: **6**　　HS Credit: **0.0**
Abbreviated Name: **MUS1CH MS**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by singing, alone and in groups. Students sing at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Choir 7

Course Code: **0771**　　　　Service ID: **03154231**　　　Recommended Grade: **7**　　HS Credit: **0.0**
Abbreviated Name: **MUS2CH MS**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by singing, alone and in groups. Students sing at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Choir 8

Course Code: **0781**　　　　Service ID: **03154331**　　　Recommended Grade: **8**　　HS Credit: **0.0**
Abbreviated Name: **MUS3CH MS**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by singing, alone and in groups. Students sing at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Choir I

Course Code: **07A1**   Service ID: **03150900**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **MUS1CHOR**
Prerequisites: **None**

Students learn music literature and apply knowledge and skills to developing proficiency in choir. Students sing new material that they have read independently. Technical expectations include expansion of reading material to the major keys of C, F, G, D, B-flat and relative minors; reading simple and compact meters and asymmetric rhythms including sixteenth notes; listening to and performing three-part and four-part literature; developing vocal and choral techniques such as vowel production, expansion of vocal range, intonation awareness, balance, and blend; and expressive singing and stylistic representation.

Choir II

Course Code: **07A2**   Service ID: **03151000**   Recommended Grade: **10-12**   HS Credit: **1.0**
Abbreviated Name: **MUS2CHOR**
Prerequisites: **Choir I**

Classes focus on student vocal performance as part of an ensemble. As students gain greater independence in lines of their score, they recognize that a greater understanding of the complexity of rhythmic and harmonic concepts is essential. They understand each part separately and as integral components of the whole composition.

Choir III

Course Code: **07A3**   Service ID: **03151100**   Recommended Grade: **11-12**   HS Credit: **1.0**
Abbreviated Name: **MUS3CHOR**
Prerequisites: **Choir II**

Students illustrate harmonic texture and complexity in more advanced rhythm and meter. Chordal structure is expanded with music that includes atonality and freely composed segments representative of diverse modern composition styles.

Graphic Design

Course Code: **06A8**   Service ID: **03580400**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **TADGDMP**
Prerequisites: **None**

This course is designed to give students an understanding of and practical applications of Adobe InDesign CC, basic Adobe Photoshop CC techniques, and the offset printing press.

Guitar 6

Course Code: **066G**   Service ID: **82400002**   Recommended Grade: **6**   HS Credit: **0.0**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing the guitar, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Guitar 7

Course Code: **067G**   Service ID: **84500001**   Recommended Grade: **7**   HS Credit: **0.0**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing the guitar, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Guitar 8

Course Code: **068G**   Service ID: **84500002**   Recommended Grade: **8**   HS Credit: **0.0**
Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing the guitar, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Guitar I

Course Code: **06G1**   Service ID: **84500007**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **MUS1GTR**
Prerequisites: **None**

Students perform literature composed for a variety of instrumental and vocal combinations including trios, quartets, quintets, sextets, septets, mariachi, and ensemble. They build a repertoire that reflects the diversity of literature. They develop independence and leadership skills that are not as easily attained in larger groups. Participation in a variety of different instrumental chamber groups expands students' musical horizons.

Guitar II

Course Code: **06G2**   Service ID: **84500008**   Recommended Grade: **10-12**   HS Credit: **1.0**
Abbreviated Name: **MUS2GTR**
Prerequisites: **Guitar I**

Within the class format, students perform music by memory and notation, and they are part of more than one ensemble group. Students' individualism and independence are demonstrated through their preparation (writing and arrangement) of music for performance. Students gain greater depth of knowledge, independence, and personal and musical skills.

Guitar III

Course Code: **06G3**   Service ID: **84500009**   Recommended Grade: **11-12**   HS Credit: **1.0**
Abbreviated Name: **MUS3GTR**
Prerequisites: **Guitar II**

Students exhibit accurate intonation and rhythm, fundamental skills, and advanced techniques using literature ranging from moderately difficult to difficult, performing alone and in ensemble. They demonstrate comprehension of musical styles by seeking appropriate literature for performance. They expressively perform, from memory and notation, a varied repertoire representing styles of diverse cultures. They are familiar with small- and large-ensemble performance techniques.

Orchestra 6

Course Code: **0763**   Service ID: **03154132**   Recommended Grade: **6**   HS Credit: **0.0**

Abbreviated Name: **MUS1ORC MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Orchestra 7

Course Code: **0773**   Service ID: **03154232**   Recommended Grade: **7**   HS Credit: **0.0**

Abbreviated Name: **MUS2ORC MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Orchestra 8

Course Code: **0783**   Service ID: **03154332**   Recommended Grade: **8**   HS Credit: **0.0**

Abbreviated Name: **MUS3ORC MS**

Prerequisites: **None**

Students explore fundamental skills appropriate for a developing musician. Students learn to read and write music notation using an established system for rhythm and melody. Students demonstrate musical artistry by playing an instrument, alone and in groups. Students play at an appropriate level of difficulty and perform in a variety of genres from notation and memory. The student relates music to history, culture, and the world. The student listens to, responds to, and evaluates music and musical performance in both formal and informal settings.

Orchestra I

Course Code: **07HO**   Service ID: **03150500**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **MUS1ORCH**

Prerequisites: **None**

Students sight-read ensemble parts and interpret symbols and terms that define dynamics, tempo, and articulation during solo and group performances. They create and arrange a variety of phrases and can perform from memory as well as from the page.

Orchestra II

Course Code: **07H2**   Service ID: **03150600**   Recommended Grade: **10-12**   HS Credit: **1.0**

Abbreviated Name: **MUS2ORCH**

Prerequisites: **Orchestra I**

Classes focus on student performance as part of an orchestra. As students gain greater independence in lines of their score, they recognize that a more complete understanding of the complexity of rhythmic and harmonic concepts is essential. They understand each part separately and as integral components of the whole composition.

Orchestra III

Course Code: **07H3**	Service ID: **03150700**	Recommended Grade: **11-12**	HS Credit: **1.0**

Abbreviated Name: **MUS3ORCH**

Prerequisites: **Orchestra II**

Students illustrate harmonic texture and complexity in more advanced rhythms and meters. Chord structure is expanded with music that includes atonality and freely composed segments representative of diverse styles of modern composition.

Theatre 6

Course Code: **0763**	Service ID: **03154132**	Recommended Grade: **6**	HS Credit: **0.0**

Abbreviated Name: **TH1 MS**

Prerequisites: **None**

Students develop concepts about self, human relationships, and the environment using elements of drama and conventions of theatre. Students interpret characters using the voice and body expressively and create dramatizations. Students apply design, directing, and theatre production concepts and skills. Students relate theatre to history, society, and culture. Students respond to and evaluate theatre and theatrical performances.

Theatre 7

Course Code: **0773**	Service ID: **03154232**	Recommended Grade: **7**	HS Credit: **0.0**

Abbreviated Name: **TH2 MS**

Prerequisites: **None**

Students develop concepts about self, human relationships, and the environment using elements of drama and conventions of theatre. Students interpret characters using the voice and body expressively and create dramatizations. Students apply design, directing, and theatre production concepts and skills. Students relate theatre to history, society, and culture. Students respond to and evaluate theatre and theatrical performances.

Theatre 8

Course Code: **0783**	Service ID: **03154332**	Recommended Grade: **8**	HS Credit: **0.0**

Abbreviated Name: **TH3 MS**

Prerequisites: **None**

Students develop concepts about self, human relationships, and the environment using elements of drama and conventions of theatre. Students interpret characters using the voice and body expressively and create dramatizations. Students apply design, directing, and theatre production concepts and skills. Students relate theatre to history, society, and culture. Students respond to and evaluate theatre and theatrical performances.

Theatre I

Course Code: **07HO**	Service ID: **03250100**	Recommended Grade: **9-12**	HS Credit: **1.0**

Abbreviated Name: **TH1**

Prerequisites: **None**

Learners study principles of acting and begin to understand theatrical conventions dealing with time and setting. Through informal class presentations, students begin to see the interdependence of all theatrical elements. Theatre Arts I students learn essential skills, techniques, and a process of script analysis to create believable characters. Then they add techniques in diction and body movements to develop characterizations further.

Theatre II

Course Code: **07H2**	Service ID: **03150600**	Recommended Grade: **10-12**	HS Credit: **1.0**

Abbreviated Name: **TH2**

Prerequisites: **Theatre I**

Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, critical thinking, problem solving, and collaborative skills. Participation and evaluation in a variety of theatrical experiences will afford students opportunities to develop an understanding of self and their role in the world.

Theatre III

Course Code: **07H3**	Service ID: **03150700**	Recommended Grade: **11-12**	HS Credit: **1.0**

Abbreviated Name: **TH3**

Prerequisites: **Theatre II**

Through diverse forms of storytelling and production, students will exercise and develop creativity, intellectual curiosity, critical thinking, problem solving, and collaborative skills. Participation and evaluation in a variety of theatrical experiences will afford students opportunities to develop an understanding of self and their role in the world.

Journalism

Journalism I

Course Code: **01F4**	Service ID: **03230100**	Recommended Grade: **9-12**	HS Credit: **1.0**

Abbreviated Name: **JRNLSM**

Prerequisites: **None**

The first semester focuses on the history of journalism; the contemporary role of print and broadcast media; basic features of mass communication; journalism, libel, and the law, the elements of a good interview, and basic news and feature writing. In the second semester, students concentrate on specialized forms of writing, editing, design, layout, graphics, advertising, production techniques and printing processes.

Physical Education

PE 6

Course Code: **0861**	Service ID: **02530003**	Recommended Grade: **6**	HS Credit: **0.0**

Abbreviated Name: **PE, 1-6**

Prerequisites: **None**

In Grades 6-8, students understand in greater detail the function of the body, learn to measure their own performance more accurately, and develop plans for improvement. They learn to use technology such as heart rate monitors to assist in measuring and monitoring their own performance. Identifying the types of activities that provide them with enjoyment and challenge and that will encourage them to be physically active throughout life is reinforced during instruction in these grades.

PE 7

Course Code: **0871**	Service ID: **03823000**	Recommended Grade: **7**	HS Credit: **0.0**

Abbreviated Name: **PE 7-8**

Prerequisites: **None**

In Grades 6-8, students understand in greater detail the function of the body, learn to measure their own performance more accurately, and develop plans for improvement. They learn to use technology such as heart rate monitors to assist in measuring and

monitoring their own performance. Identifying the types of activities that provide them with enjoyment and challenge and that will encourage them to be physically active throughout life is reinforced during instruction in these grades.

PE 8/Foundations of Personal Fitness

Course Code: **08F1**   Service ID: **PES00052**   Recommended Grade: **8**   HS Credit: **1.0**
Abbreviated Name: **PEFOUND**
Prerequisites: **None**

Course Code: **08F3**   Service ID: **PES00052**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **PEFOUND**
Prerequisites: **None**

Foundations of Personal Fitness represents a new approach in physical education and the concept of personal fitness. The basic purpose of this course is to motivate students to strive for lifetime personal fitness with an emphasis on the health-related components of physical fitness. The knowledge and skills taught in this course include teaching students about the process of becoming fit as well as achieving some degree of fitness within the class. The concept of wellness, or striving to reach optimal levels of health, is the corner stone of this course and is exemplified by one of the course objectives-students designing their own personal fitness program.

Girls Athletics 8

Course Code: **0882**   Service ID: **PES00055**   Recommended Grade: **8**   HS Credit: **1.0**
Abbreviated Name: **PEITS**
Prerequisites: **Teacher recommendation**

Boys Athletics 8

Course Code: **0883**   Service ID: **PES00055**   Recommended Grade: **8**   HS Credit: **1.0**
Abbreviated Name: **PEITS**
Prerequisites: **Teacher recommendation**

Girls and Boys Athletics allows students to broaden their knowledge of a chosen sport (e.g., volleyball, basketball) to include rules, regulations, history, and team strategies. Students will demonstrate good sportsmanship and skills that are proficient for competing.

Girls Athletics I

Course Code: **08A1**   Service ID: **PES00000**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **SUBATH1**
Prerequisites: **Teacher recommendation**

Boys Athletics I

Course Code: **08A2**   Service ID: **PES00000**   Recommended Grade: **9-12**   HS Credit: **1.0**
Abbreviated Name: **SUBATH1**
Prerequisites: **Teacher recommendation**

Girls and Boys Athletics allows students to broaden their knowledge of a chosen sport (e.g., volleyball, basketball) to include rules, regulations, history, and team strategies. Students will demonstrate good sportsmanship and skills that are proficient for competing at the high school level.

Technology Applications/Career & Technical Education

Technology 6

Course Code: **0961**　　　Service ID: **02670060**　　　Recommended Grade: **6**　　　HS Credit: **0.0**

Abbreviated Name: **TECH Gr6**

Prerequisites: **None**

Through the study of technology applications, students make informed decisions by understanding current and emerging technologies, including technology systems, appropriate digital tools, and personal learning networks. As competent researchers and responsible digital citizens, students use creative and computational thinking to solve problems while developing career and college readiness skills.

Technology 7

Course Code: **0971**　　　Service ID: **03580100**　　　Recommended Grade: **7**　　　HS Credit: **0.0**

Abbreviated Name: **TECH Gr7**

Prerequisites: **None**

Through the study of technology applications, students make informed decisions by understanding current and emerging technologies, including technology systems, appropriate digital tools, and personal learning networks. As competent researchers and responsible digital citizens, students use creative and computational thinking to solve problems while developing career and college readiness skills.

Technology 8

Course Code: **0981**　　　Service ID: **03580120**　　　Recommended Grade: **8**　　　HS Credit: **0.0**

Abbreviated Name: **TECH Gr8**

Prerequisites: **None**

Through the study of technology applications, students make informed decisions by understanding current and emerging technologies, including technology systems, appropriate digital tools, and personal learning networks. As competent researchers and responsible digital citizens, students use creative and computational thinking to solve problems while developing career and college readiness skills.

Business Information Management (CTE, BMA)

Course Code: **0982**　　　Service ID: **13011400**　　　Recommended Grade: **8-10**　　　HS Credit: **1.0**

Abbreviated Name: **BUSIM1**

Prerequisites: **None**

Students implement personal and interpersonal skills to strengthen individual performance in the workplace and in society and make a successful transition to the workforce and postsecondary education. Students apply technical skills to address business applications of emerging technologies, create word-processing documents, develop a spreadsheet, formulate a database, and make an electronic presentation using appropriate software.

Principles of Information Technology (CTE, IT)

Course Code: **09F4**　　　Service ID: **13027200**　　　Recommended Grade: **8-10**　　　HS Credit: **1.0**

Abbreviated Name: **PRINIT**

Prerequisites: **None**

Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students enhance reading, writing, computing, communication, and reasoning skills and apply them to the information technology environment.

Digital and Interactive Media (CTE, IT)

Course Code: **09F5**   Service ID: **13027800**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **DIMEDIA**

Prerequisites: **None**

Through the study of digital and interactive media and its application in information technology, students will analyze and assess current and emerging technologies, while designing and creating multimedia projects that address customer needs and resolve a problem. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

Graphic Design and Illustration I (CTE, AAVTC)

Course Code: **06A8**   Service ID: **13008800**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **GPHCDSGN**

Prerequisites: **None**

Careers in graphic design and illustration span all aspects of the advertising and visual communications industries. Within this context, students will be expected to develop an understanding of the industry with a focus on fundamental elements and principles of visual art and design. Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.

Thriving in Our Digital World (DC)

Course Code: **09S2**   Service ID: **03580140**   Recommended Grade: **9-12**   HS Credit: **1.0**

Abbreviated Name: **TACFS**   College Credit: **3.00**

Prerequisites: **Algebra II**

In this course, students learn computer science principles, a set of core ideas that shapes the landscape of computer science and its impact on our society. Students will acquire essential Texas College and Career Readiness skills, applying critical thinking, problem-solving, and communication within a project-based learning framework. Topics include examining the effects of computing on our world, coding programs that serve useful functions, exploring the architecture of digital objects, digital manipulation of sound and images, analyzing real world data to discover new knowledge, and an introduction to artificial intelligence.

Web Technologies (CTE, IT)

Course Code: **09S4**   Service ID: **13027900**   Recommended Grade: **9-10**   HS Credit: **1.0**

Abbreviated Name: **WEBTECH**

Prerequisites: **None**

Through the study of web technologies and design, students learn to make informed decisions and apply the decisions to the field of information technology. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. The knowledge and skills acquired and practiced will enable students to successfully perform and interact in a technology-driven society. Students enhance reading, writing, computing, communication, and critical thinking and apply them to the information technology environment.

Computer Programming I (CTE, IT)

Course Code: **09S5**   Service ID: **13027600**   Recommended Grade: **10-12**   HS Credit: **1.0**

Abbreviated Name: **COMPPRO1**

Prerequisites: **None**

Students will acquire knowledge of structured programming techniques and concepts appropriate to developing executable programs and creating appropriate documentation. Students will analyze the social responsibility of business and industry regarding the significant issues relating to the environment, ethics, health, safety, and diversity in society and in the workplace as related to computer programming. Students will apply technical skills to address business applications of emerging technologies.

Engineering

Robotics I (CTE, STEM)

Course Code: **09F3**   Service ID: **13027200**   Recommended Grade: **8-10**   HS Credit: **1.0**

Abbreviated Name: **ROBOTIC1**

Prerequisites: **None**

Students transfer academic skills to component designs in a project-based environment through implementation of the design process. Students will build prototypes or use simulation software to test their designs. Additionally, students will explore career opportunities, employer expectations, and educational needs in the robotic and automation industry.

Principles of Applied Engineering (CTE, STEM)

Course Code: **09F2**   Service ID: **13036200**   Recommended Grade: **9**   HS Credit: **1.0**

Abbreviated Name: **PRAPPENG**

Prerequisites: **None**   Formerly Known As: **Engineering I**

Principles of Applied Engineering provides an overview of the various fields of science, technology, engineering, and mathematics and their interrelationships. Students will develop engineering communication skills, which include computer graphics, modeling, and presentations, by using a variety of computer hardware and software applications to complete assignments and projects. Upon completing this course, students will understand the various fields of engineering and will be able to make informed career decisions. Further, students will have worked on a design team to develop a product or system. Students will use multiple software applications to prepare and present course assignments.

Engineering Design and Presentation I (CTE, STEM)

Course Code: **09J2**   Service ID: **13036500**   Recommended Grade: **10**   HS Credit: **1.0**

Abbreviated Name: **ENGDSPR1**

Prerequisites: **Principles of Applied Engineering**   Formerly Known As: **Engineering II**

Engineering Design and Presentation I is a continuation of knowledge and skills learned in Principles of Applied Engineering. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects. Through implementation of the design process, students will transfer advanced academic skills to component designs. Additionally, students explore career opportunities in engineering, technology, and drafting and what is required to gain and maintain employment in these areas.

Engineering Design and Presentation II (CTE, STEM)

Course Code: **09R2**   Service ID: **13036600**   Recommended Grade: **11**   HS Credit: **1.0**

Abbreviated Name: **ENGDSPR2**

Prerequisites: **Engineering Design and Presentation I**   Formerly Known As: **Engineering III**

Engineering Design and Presentation II is a continuation of knowledge and skills learned in Engineering Design and Presentation I. Students enrolled in this course will demonstrate knowledge and skills of the design process as it applies to engineering fields using multiple software applications and tools necessary to produce and present working drawings, solid model renderings, and prototypes. Students will use a variety of computer hardware and software applications to complete assignments and projects.

Through implementation of the design process, students will transfer advanced academic skills to component designs. Emphasis will be placed on using skills from ideation through prototyping.

Engineering Design and Problem-Solving (CTE, STEM)

Course Code: **09R4**   Service ID: **13037300**   Recommended Grade: **12**   HS Credit: **1.0**
Abbreviated Name: **ENGDPRS**
Prerequisites: **Engineering Design and Presentation II**   Formerly Known As: **Engineering IV**

The Engineering Design and Problem-Solving course is the creative process of solving problems by identifying needs and then devising solutions. The solution may be a product, technique, structure, or process depending on the problem. Engineering Design and Problem Solving reinforces and integrates skills learned in previous mathematics and science courses.