

NPA



Northland Preparatory Academy

High School Course Catalog 2019-2020

Northland Preparatory Academy is a public charter school. The charter for our school is specifically designed to serve students in a highly academic setting. Several of our courses are Honors and Advanced Placement (AP) courses, benefiting students who strive for the challenge of a quality college preparatory education.

Academics

As a charter school, the NPA faculty, staff, and governing board must adhere closely to the stated goals of the charter, which calls for a highly academic college prep school. The school welcomes all applicants regardless of race, gender, ethnicity, or economic status. No admission test is administered for prospective students; however, students are expected to take at least five core courses a year, including English, a second language, math, science, and history or social studies. Fine arts are an essential part of a well-rounded college prep program and many NPA students take art and/or music courses beyond the one-credit high school requirement.

High School

The high school program is designed to provide outstanding preparation for college. Students can choose from a range of electives; however, students take five core level courses each year: typically, these are English, a foreign language, math, social studies/history, and science, but some students may take an alternate core-level class in place of the fourth science or foreign language credit. Students take electives as well. All classes are yearlong courses and are worth ½ credit each semester.

Questions?

If you have any questions about the curriculum offered at NPA, or if you would like more information on our AP or Honors classes, please contact a school counselor at 928-214-8776 or visit our web site at www.northlandprep.org

High School Graduation Requirements

Students shall earn a minimum of **24 credits** *within* Grades 9-12.

At least 20 of the 24 overall credits shall be core class credits.

- · 4 credits of English
- 4 credits of Math, including one course for which Algebra II is a prerequisite
- 4 credits of Social Studies (2 World History, 1 US History, 1 US Govt./Economics)
- 3 credits of Foreign Language
- 3 credits of Laboratory Science
- 2 credits of other core courses**

Up to 4 of the 24 overall credits may be elective class credits.

- 1 elective credit must be in Fine Arts
- 3 credits of other electives

Students typically will enroll in five core classes, one elective, and one Integrated Learning Strategies (non-credit) course each year, yielding six credits each year toward the total of 24.

**Usually an additional credit in each of Foreign Language and Science, but may be satisfied with any two courses approved as core level courses. Core level courses include any of the five core subject areas above, as well as the AP Capstone courses (AP Seminar and AP Research), Introduction to Psychology, AP Psychology, Computer Science, AP Studio Art, Global Issues, Model United Nations, Speech and Debate (if offered), Creative Writing, and Introduction to Engineering Design.

Students wishing not to pursue a fourth credit in either science or foreign language may seek approval from the school to substitute another course to satisfy the core course requirement. Examples of substitute courses can include:

- 1. An additional NPA core course (e.g. an extra science course, extra English course, Psychology course, etc.),
- 2. College course at either CCC or NAU, if logistically feasible given student schedule.

Transfer Students

NPA will post transfer credits from accredited secondary schools and colleges to students' NPA transcripts. Students should be aware; however, that NPA still may require students to be enrolled in five core classes each year, even if that might result in a student surpassing the minimum graduation requirements. Students with special circumstances may seek exception from a school counselor and appeals may be directed to the Principal.

High School Program 2019-2020

Typical 9th Grade Schedule

- English: Writing Through the Humanities 9 or Writing Through the Humanities 9 Honors
- Foreign Language: French I, Spanish I, or American Sign Language I (see note below)
- Math: by placement see Math section of catalog
- Science: Physics 9 or Accelerated Physics 9
- Social Studies: World History 9 or Pre-Advanced Placement World History 9
- Sixth course: Elective courses; usually a Fine Arts course or Rec. Fitness/Health
- Seventh course: Integrated Learning Strategies (must petition to waive)

Typical 10th Grade Schedule

- English: World Literature 10 or World Literature 10 Honors
- Foreign Language: French II, Spanish II, or American Sign Language II (see note below)
- Math: by placement see Math section of catalog
- Science: Biology, Chemistry ** (AP and/or Accelerated options available)
- Social Studies: World History 10 or Advanced Placement World History 10
- Sixth course: Elective courses; usually a Fine Arts course or Rec. Fitness/Health
- Seventh course: Integrated Learning Strategies (must petition to waive)

Typical 11th Grade Schedule

- English: American Literature 11 or AP English Literature and Composition
- Foreign Language: French III, Spanish III, American Sign Language III (see note below)
- Math: by placement see Math section of catalog
- Science: Biology, Chemistry, Anatomy/Physiology, Earth/Space, or Environmental
- Social Studies: US History 11 or AP US History 11
- Sixth course: General or core elective dependent upon credit progression
- Seventh course: Integrated Learning Strategies (must petition to waive)

Typical 12th Grade Schedule

- English: English Literature and Composition 12 or AP English Language and Composition
- Foreign Language: If three languages already met; optional to take another for core elective
- Math: by placement see Math section of catalog
- Science: If three lab sciences already met; optional to take another for core elective
- Social Studies: US Government & Economics
- Sixth course: General or core elective dependent upon credit progression
- Seventh course: Optional ILS or extra course based on interest

Note regarding American Sign Language (ASL) as a Foreign Language Study: Some colleges and universities may not accept American Sign Language as a fulfillment of the foreign language requirement for admission. Students and families should check with the post-secondary institutions to which they plan to apply to learn if ASL satisfies the high school foreign language requirement.

High School Courses

listed by department

English

Graduation Requirements: four credits required; fifth credit optional

EN102

Writing Through the Humanities (9th Grade)

This course introduces students to a variety of literature, mainly pulling from the works of American authors, but occasionally drawing from authors from other countries as well. The class will focus on a particular theme in humanities each quarter, and we will use this theme to help us connect our learning to social studies and science. Students will develop their understanding of literary elements by closely reading, discussing, and writing about poetry, drama, short stories, essays and novels. Because strong writing skills are closely connected with strong reading skills, the literature in this course will be used to facilitate both writing opportunities and the development of critical, analytical thinking about various literary elements. The basic elements of composition – thesis statement, topic sentences, concrete detail, commentary/analysis – are emphasized, and writing fundamentals such as proper grammar, spelling and syntax are reviewed. We will also embed writing instruction in genre theory, exposing students to different genre choices and purposes as part of the writing process. In addition to frequent in-class writing exercises and homework assignments designed to give students practical writing opportunities, students will write approximately 6 out of class essays during the year.

EN112

Writing Through the Humanities - Honors (9th Grade)

This course is more accelerated than the regular course, providing a study of literature that is greater in depth and scope. Students are expected to use and develop sophisticated critical and analytical skills as they examine a variety of literature, including works not taught in the regular course. More writing and outside reading are also expected of the students in this course. There is also the potential of field work in the spring that will include a river trip. *Prerequisite: By teacher recommendation*

EN201

World Literature 10

This course studies five genres of world literature: essay, short story, novel, drama, and poetry. Students continue to develop their analytical abilities, examining and discussing the ways in which literary elements such as plot, character, setting, theme and symbolism work to create meaning and influence interpretation. This course also continues to emphasize composition, reinforcing the skills learned in the 9th grade and providing frequent, practical writing opportunities. In addition to regular in-class and homework assignments, students write approximately 8 out of class essays during the year.

EN211

World Literature 10 Honors

This course emphasizes a greater in-depth study of the same genres studied in the regular world literature class, with more writing and outside reading expected of the student. Frequent timed writings, formal essays and research-based papers are the required writings in this class. *Prerequisite: By teacher recommendation*

EN302

American Literature 11

This course focuses on critical thinking skills via reading, discussion, and written analysis of book-length texts and shorter pieces of both contemporary and classic works. It also acts as a survey of literary and historical movements in the United States. Texts are selected to build upon students' prior learning, to improve reading strategies and to encourage critical thinking. The primary focus of the course is on the traditions of remix and revolution in American literature.

EN312

Advanced Placement (AP) English Literature and Composition (11th or 12th Grade)

Open to juniors and seniors, this course emphasizes the analytical reading of and writing about literature, including novels, short stories, drama, and poetry. The literature will be from various periods and cultures and genres, and students will study literary elements, figurative language, literary criticism and theory, and literary eras. They will gain experience in writing essays such as those required on the AP exam. Students are not required to take the AP exam, but they are encouraged to do so. AP students are expected to read 100 pages per week and write 1 essay per week. *Prerequisites: Teacher recommendation and placement exam. AP Exam Fee (from 2019; may be higher in 2020):* \$94

EN402

English Literature and Composition 12

This course will integrate basic reading, writing, listening and speaking skills through the survey of literature and philosophy. Texts are selected to build upon students' prior learning, to improve reading strategies and to encourage critical thinking. This course focuses on the continuity of thought between ages and across cultures as it relates to political ideology, the ideal ruler, the perfect citizen, and the ideal state.

EN411

Advanced Placement (AP) English Language and Composition 12 (Dual Enrollment Option) Open to seniors only, this course emphasizes the various forms of composition, including expository, narrative and argumentative. Students will learn the research process and the skills necessary for that process – choosing and evaluating sources, summarizing, paraphrasing, synthesizing sources, documenting sources – and will complete a research project. The students will learn critical reading skills to analyze the devices and writing styles used by writers, and they will practice using those skills in their own writing as they write essays such as those required on the AP exam. Students are not required to take the AP exam, but they are encouraged to do so. AP students are expected to read 100 pages per week and write 1 essay per week. Prerequisites: Teacher recommendation and placement exam. AP Exam Fee (from 2019; may be higher in 2020): \$94

Mathematics

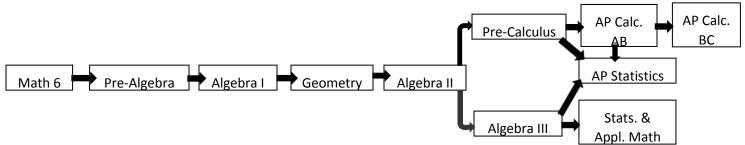
High School Graduation Requirements: 4 credits of math during Grades 9-12, including one course for which Algebra II is a prerequisite. Algebra I or Geometry may be included on high school transcripts, but students will still be required to earn four credits during high school.

IMPORTANT NOTES:

Students and parents should remember that the public Arizona universities require one year of math beyond Algebra II. Students who take Pre-Algebra in the ninth grade and who plan to go to a public university in Arizona must take math courses in summer school in order to complete Algebra I, Geometry, Algebra II, and Algebra III before graduating from NPA.

Sequence of Mathematics Courses

The mathematics program at Northland Preparatory Academy (NPA) follows an orderly progression through a series of courses that each build upon all of the previous courses from the sequence. Incoming sixth graders are assessed and placed in either Math 6 or Pre-Algebra, depending on their math capabilities at that time. New students who enter NPA after sixth grade are assessed and placed at the appropriate level in the math course sequence. Students then progress through the sequence, as diagrammed below. After completing Algebra II, students are placed into either Algebra III or PreCalculus, depending on their math performance to that point.



Upper-Level Courses

While the diagram above illustrates many of the possible movements through the course sequence past Algebra II, it should be noted that the movements depicted are not exhaustive. There is the potential for some flexibility in moving between these courses, and each student's progression is handled on an individual basis. Advanced Placement (AP) Calculus AB will continue to be a required prerequisite for AP Calculus BC. For AP Statistics, students have the potential to transition into this course from a number of different courses the previous year (Statistics and Applied Math is *not* a prerequisite for AP Statistics). More detailed descriptions of all mathematics courses follow.

Advancement in Math Courses at NPA

The nature of the study of mathematics is such that an appropriate level of mastery of each stage is *necessary* before a student can move on to the next course. Students must demonstrate this level of mastery on a consistent basis throughout each school year. All students in Math 6 will move to PreAlgebra the following year, and will be provided additional support when necessary. For the next four courses in the sequence, advancement standards vary somewhat by grade level. Because students who are at the youngest grade level for these courses (6th graders in Pre-Algebra, 7th graders in Algebra I, 8th graders in Geometry, 9th graders in Algebra II) are considered to be in an advanced course, the standards for advancement are higher for these students. These standards are outlined in the table below. *To read the table, find the current math course and overall grade average for a given student (note: this grade average needs to be maintained for the entire school year for advancement consideration), then read the entry that applies to the grade level of that student. The bolded categories are described below.* It should also be noted that these advancement procedures may be modified for those students with individualized educational plans (IEPs).

	A (90%) or better	B (80%) or better	C (70%) or better	D (69%) or lower
Pre-Algebra	All Grade Levels: Next Course	6 th Grade: Possibly Eligible Other Grade Levels: Next Course	6 th Grade: Same Course Other Grade Levels: Possibly Eligible	All Grade Levels: Same Course
Algebra I	All Grade Levels: Next Course	7 th Grade: Possibly Eligible Other Grade Levels: Next Course	7 th Grade: Same Course Other Grade Levels: Possibly Eligible	All Grade Levels: Same Course
Geometry	All Grade Levels: Next Course	8 th Grade: Possibly Eligible Other Grade Levels: Next Course	8 th Grade: Same Course Other Grade Levels: Possibly Eligible	All Grade Levels: Same Course
Algebra II	All Grade Levels: Next Course	9 th Grade: Possibly Eligible Other Grade Levels: Next Course	9 th Grade: Same Course Other Grade Levels: Possibly Eligible	All Grade Levels: Same Course

^{*}Next Course: The student will automatically be placed in the next course in the sequence.

Advancement through the math course sequence beyond Algebra II is handled on a more individualized basis. However, the general procedure is that a student is required to have an 'A' average (90% or better) in Algebra II to be eligible for Pre-Calculus.

It is the position of the NPA math department that no student can ever fail any of these courses, but instead that different students simply take differing amounts of time to develop appropriate levels of mastery of mathematical content. The overall goal of this advancement procedure is to ensure that all students at NPA experience success and competence throughout their study of mathematics.

^{*}Possibly Eligible: The student may or may not be placed in the next course in the sequence. The teachers in the math department will analyze such cases individually and make a decision about possible course changes based on all relevant factors (for example, in some cases, it is recommended that a student complete some sort of summer work in order to advance in the course sequence).

^{*}Same Course: The student will spend an additional school year at that same level in order to improve his or her level of mastery.

Math Courses

MA321

Algebra I

This is a standard high school level algebra course that covers the following topics: operational symbols and their properties; integers and rational numbers and their properties; equation solving; inequalities and their solutions; factoring; linear equations and graphing; quadratic equations – solving and graphing. Algebra I is the foundation for all higher level math courses.

MA401

Geometry

The geometry course provides a general overview of geometric principles with a review of algebraic concepts and factoring. Topics for geometry include, but are not limited to: constructions, transformations, triangle relationships, parallel line relationships, circle relationships, areas, and volumes.

MA501

Algebra II

This second course in algebra reviews and expands on the concepts introduced in Algebra I. New topics include polynomials, matrices, trigonometry, exponents, and logarithms. A graphing calculator is necessary, and it is recommended that students use a TI-83 or TI-84, the calculator that the instructor will be using to explain the material. The same calculator is required for all subsequent math courses.

MA601

Algebra III

This course is a further expansion of the topics from Algebra II (but not at the level of complexity as is covered in Pre-Calculus). Topics covered include functions, sequences, parametric equations, and trigonometric relationships. This course provided materials for students to learn to display, describe, transform, and interpret numerical information in the form of data, graphs, or equations.

MA611

Statistics and Applied Mathematics

In this course, students will use mathematics to model and analyze problems from the natural and social sciences. In order to perform effectively as professionals and citizens, students must become competent in quantitative data and in applying basic quantitative skills to the solution of real-life problems. This course will enhance the student's ability to understand and apply the language of mathematics. Topics to be covered include descriptive statistics; inferential statistics; probability; linear, exponential or logistic growth and decay models; finance; discrete models in scheduling, and organization of ordering of tasks. Appropriate use of units and dimensions, estimates, mathematical notation and available technology will be emphasized throughout the course.

MA701

Pre-Calculus

This course expands on many previously-learned algebra, geometry, and analysis topics, and introduces more abstract mathematical concepts such as limits. Topics covered include functions (polynomial, power, rational, exponential, logistic, logarithmic, trigonometric), analytic trigonometry, vectors, parametric and polar equations, matrices, analytic geometry, and an overview of discrete mathematics. This course prepares students to study all levels of calculus.

MA901

AP Calculus AB (Dual Enrollment Option)

This course prepares students for the Advanced Placement Calculus AB exam which is administered in May. Topics include: displacement; velocity and acceleration as derivatives; derivatives of trigonometric, exponential and logarithmic functions; implicit differentiation; finding critical points; anti-differentiation; Fundamental Theorem of Calculus; antiderivatives and slope fields; integrations by parts and by substitution; exponential growth and decay; areas in the plane; volumes; applications to science and statistics. *AP Exam Fee (from 2019; may be higher in 2020):* \$94

MA911

AP Calculus BC

This course prepares students for the Advanced Placement Calculus BC exam which is administered in May. The course covers all of the same topics as AP Calculus AB, but at a more advanced level, and in addition, the following additional topics: L'Hopital's rule; Euler's method; derivatives of parametric, polar, and vector functions; improper integrals; integration by parts; logistic differential equations; polynomial approximations; series of constants; Taylor and Maclaurin series.

AP Exam Fee (from 2019; may be higher in 2020): \$94

MA921

AP Statistics

This course prepares students for the Advanced Placement Statistics exam which is administered in May. The course provides introduction to the basic ideas and methods of collecting, representing and analyzing data to report findings using elementary techniques from statistics and probability. Topics include: frequency distributions; histograms and frequency polygons; measures of central tendency and variability; conditional probability; percentiles; Z-scores; normal and binomial distributions; confidence intervals; hypothesis testing; regression and correlation.

AP Exam Fee (from 2019;; may be higher in 2020): \$94

Social Studies

Graduation Requirements: four credits required

SS101

World History 9 – World History to 1800

Honors World History is a survey course taken during 9_{th} grade that emphasizes the history of world civilization. A survey of the major cultural, political, social, and economic developments of western cultures will be examined. This course covers World History from the rise of civilizations to the Industrial Revolution. Primary source documents, the historical method, and research and writing in the discipline of history are emphasized.

SS111

Advanced Placement (AP) World History 9 – World History to 1800

This course is an AP course. The students will be prepared to take the AP World History test at the end of 10th grade. This course covers World History from the beginning to the Industrial Revolution. In an AP course, the students are expected to perform at an elevated level. They are expected to be self-motivated. The course is reading and writing intensive and focused on in depth historical analysis. The purpose of an AP course is to develop greater understanding of evolution of global processes and contacts, in interaction with different types of human societies.

Prerequisite: Teacher Recommendation

SS201

World History 10 - World History 1800 to Present

Modern World History is a continuation of the 9_{th} grade World History survey up to the present day. Students will examine significant cultural, political, geographic, social and economic developments of world societies based on the foundational knowledge of civilizations gained in their 9_{th} grade course studies. Primary source documents, the historical method, and research and writing in the discipline of history are emphasized.

SS211

Advanced Placement (AP) World History 10- World History 1800 to Present

This course is an AP course. The students will be prepared to take the World History AP test at the end of 10th grade. This course covers World History from the Industrial Revolution to the present era. As an AP course, the students are expected to perform at an elevated level. They are expected to be self-motivated. The course is reading and writing intensive focused on in depth historical analysis. The purpose of this course is to develop greater understanding of evolution of global processes and contacts, in interaction with different types of human societies.

Prerequisite: Teacher Recommendation AP Exam Fee (from 2019; may be higher in 2020): \$94

SS301

United States History 11

This course engages United States History from its pre-Columbian past to present. Strands of government and economics (as well as archaeology and anthropology) are woven into the tapestry of America's history to achieve a more holistic understanding of our rich and multi-cultural heritage. Emphasis is placed on reading, writing and critical thinking. Students will address the differences between primary and secondary literature as well as learn how historians string facts together to compose historical narrative. Students will, therefore, make presentations, write papers—both research papers and literature reviews—and take essay-based tests.

SS311

Advanced Placement (AP) United States History

This course follows the study of US History from pre-Colonial society through to the present. Strands of government and economic study are wrapped into the course to create a more holistic understanding of the developments in American society throughout history. AP US History is a rigorous course that emphasizes regular independent reading, critical thinking, and research. Special training in skills related to analysis of historical documents is stressed. Students may take the Advanced Placement test in May, for which college credit may be given for a qualifying score.

Prerequisite: Successful completion of SS211 or permission of instructor AP Exam Fee (from 2019; may be higher in 2020): \$94

SS461

United States Government & Economics

Senior Economics and Government is composed of two semester-long courses. The fall semester focuses on American government with an emphasis on its structure and institutions and the politics of elections. This course marks the culmination of civic literacy that will prepare students to vote, participate in community activities and reflect the responsibilities of citizenship. Additionally, the fall semester will include an international perspective to gain an understanding of the form and functions of governments around the world including multi-national organizations. The spring semester covers economics and introduces micro-economics, macroeconomics and the study of entrepreneurship. Subjects include supply and demand, pricing, monopoly, perfect competition, regulation and the role of government in the economy. Critical reasoning skills are emphasized during the entire course as well as effective oral and written advocacy. Emphasis is also placed on the economic institutions in the United States, the international marketplace, and comparative economic systems. Debates, student presentations and oral case study presentations are utilized throughout the year.

Science

Graduation Requirements: three credits laboratory science required; four recommended

SC131

Physics 9

This course presents major topics within the field of mechanics. It is mathematical in nature, but emphasis is on conceptual understanding and practical application. This course is taught through a discovery-oriented curriculum and as such lab work will play a major role in the learning process. Students not following safety procedures may be administratively dropped from the class.

SC132

Accelerated Physics 9

This advanced level course presents major topics within the field of mechanics in great detail. It is extremely mathematical in nature and maintains a fast pace through topics. Extra emphasis will be placed on practical application of concepts, projects, as well as conceptual understanding throughout the year. Students successful in this course will be well equipped as critical thinkers in any science field as labs play a major role in the learning process. *Pre-requisites: Successful completion of Algebra I and Geometry or special placement by 8th grade science instructor. Students not following safety procedures may be administratively dropped from the class.*

SC101

Biology (Grades 10-12)

This course serves as a comprehensive introduction to the life sciences. The course will emphasize the ecological connections that run throughout biology and relate them to all the major aspects of the discipline. The course is broken into 4 quarter units: Ecology, Cells and Cell Processes, Prokaryotes, Eukaryotes and Plants, and Animals and Animal Systems. *Prerequisite: None. Students not following safety procedures may be administratively dropped from the class.*

SC401

Advanced Placement (AP) Biology (Grades 11-12)

AP Biology is a capstone course that is taught at a college level where students can earn college credit if they do well on the AP exam. The concepts include cell chemistry, cell morphology, genetics, ecology, evolution, and population genetics. AP Biology is a fast-paced course that requires students to be self-motivated and willing to push themselves academically. The book used is an e-textbook so students are expected to have internet access at home or spend extra time in the computer lab at school to complete assignments. *Prerequisites: Successful completion of high school Chemistry.*

AP Exam Fee (from 2019; may be higher in 2020): \$94

SC201

Chemistry (Grades 10-12)

Chemistry is a college preparatory lab course covering chemistry including a moderate amount of math. The course covers atomic structure, chemical reactions, chemical naming, chemical periodicity, solutions, thermodynamics, bonding, organic chemistry, acids/bases, and nuclear chemistry. This class is recommended for a student who has interest in going on in science in college but not necessarily majoring in science. *Prerequisites: Successful completion of Algebra I. Students not following safety procedures may be administratively dropped from the class.*

SC221

Accelerated Chemistry (Grades 10-12)

Accelerated Chemistry is a college preparatory lab course covering chemistry in greater depth and with greater mathematical sophistication than Chemistry (SC201). The course covers atomic structure, chemical reactions, chemical naming, chemical periodicity, solutions, thermodynamics, bonding, organic chemistry, acids/bases, and nuclear chemistry. This class is recommended for a student who has interest in going on in science in college and, perhaps, majoring in science or a science-related field. *Prerequisites: Grade of A in Algebra I. Students not following safety procedures may be administratively dropped from the class.*

SC411

Advanced Placement (AP) Chemistry (Grades 11-12)

AP Chemistry is a college level lab course covering the same topics as Chemistry I in greater depth, with the added topics of thermodynamics, equilibrium, nuclear chemistry and a basic introduction to organic topics. This course prepares students to take the College Board AP Chemistry exam. *Prerequisite:* Successful completion of high school Chemistry. AP Exam Fee (from 2019; may be higher in 2020): \$94

SC301

Earth, Space and the Environment (Grades 10-12)

This course serves as a combined study of Earth Science and Environmental Science. The course emphasizes the dynamic processes that shape the earth and how these processes influence life on the earth. The lectures, reading assignments and lab experiments strive to encapsulate elements of biology, chemistry, and earth science in an effort to address current environmental issues. The main topics include geology, climate and weather, astronomy, and environmental science topics.

SC421

Advanced Placement (AP) Environmental Science (Grades 11-12)

AP Environmental Science is a college level course that encapsulates elements of biology, chemistry, and earth science. In an effort to address current environmental issues, students will take at least 5 mandatory field trips throughout the year to reinforce classroom learning and current events. This course can be broken into approximately five units: Ecosystems and How They Work, The Human Population, Renewable Versus Nonrenewable Resources, Energy, Pollution and Prevention, and Working Towards a Sustainable Future. *Course description cont'd on next page...*

AP Environmental Science Course Description Cont'd...

As in all AP courses, students are expected to be well disciplined in studying and time-management, have excellent reading and writing skills, and be able to work at a fast pace dealing with complex topics. College credit can be earned if a student does well on the AP exam. The book used is "Living in the Environment" 12th ed. By Miller ISBN# 0-534-37697-5. Prerequisites: Consult with current science teacher. AP Exam Fee (from 2019; may be higher in 2020): \$94

SC431

Advanced Placement (AP) Physics (Grades 11-12)

AP Physics is a course taught at the college level to prepare students to take the Physics C: Mechanics exam. The skills learned will be reading and interpreting physical data, assessing and performing the steps needed to solve physical problems, using mathematical reasoning using calculus, and performing experiments. The course will cover kinematics, Newton's laws of motion, work, energy, power, systems of particles, linear momentum, circular motion, rotation, oscillations and gravitation. AP Physics is a fast paced course that requires students to be self-motivated and willing to push themselves academically. The book used is "College Physics, 7th ed." by Serway and Faughn, ISBN#0-534-99723-6. Prerequisite: Successful completion of Physics or Accelerated Physics Corequisite: AP Calculus (at least AB level) must be taken either prior to or concurrent with enrollment in AP Physics AP Exam Fee (from 2019; may be higher in 2020): \$94

SC501

Anatomy and Physiology (Grades 10-12)

Human Anatomy and Physiology integrates classwork, laboratory experiences, and dissections to present the human as a marvel of biological engineering. The topics discussed will include tissue studies and a systematic study of the human form (bones, muscles, nerves, circulation, digestion, respiration, endocrinology, reproduction, and excretion). Students will understand the functions of a variety of body systems and organs. This course is designed to expose students heading into various healthcare-related fields to the knowledge and skills of the field. It is intended to expose those students to the terminology and techniques that they will use in their post-secondary education.

Foreign Language

Graduation Requirements: minimum three credits required within Grades 9-12. Students will take the first three years of their modern language in the same language; students wishing to switch from one language to another may do so after having successfully completed the third year course. Students who pass a foreign language course but whose progress has not sufficiently prepared them for success in the next course will repeat the prior course. They will receive a foreign language credit for the retaken course and a generic core credit for the credit earned in the prior course. (Example: A student who earns a D in Spanish II in Grade 10 will repeat Spanish II in Grade 11 and then be required to complete Spanish III in Grade 12. The credits in Grades 9, 11, and 12 count for the three required credits and the credit in Grade 10 counts as a generic core credit toward the overall requirement of 20 core credits.)

FL111

French I

The students will begin working on speaking, reading, listening to and writing French. This first year in particular the students will learn how to accomplish basic tasks in French, using all four of the abovementioned skills. In addition, the students can expect to begin learning about France and the French, as well as French-speaking people around the world. *Prerequisite: None*

FL211

French II

Using the four skills necessary for proficiency – speaking, listening, reading, and writing – the students will continue to learn about the French-speaking world and continue to work on being able to communicate in daily interactive situations. There will be an increasing emphasis on oral proficiency this second year. *Prerequisite: Grade of C or better in NPA's French I or by placement exam*

FL311

French III

Again, through using all four proficiency skills –speaking, listening, reading and writing – the students will continue their study of grammar and the Francophone world. There will be an increasing emphasis on writing as well as on oral work. *Prerequisite: Grade of C or better in NPA's French II or by placement exam*

FL131

Spanish I (Dual Enrollment Option)

Spanish I provides the fundamentals of pronunciation, basic vocabulary, and grammar of the Spanish language. The class is designed to give students the foundations that satisfy basic social situations. By the end of the course students will have a working knowledge of the present indicative tense of the language. Students will develop basic communication skills in reading, writing and speaking in Spanish. Students are also introduced to different cultures and traditions of the Spanish speaking world. *Prerequisite: None*

FL231

Spanish II

Spanish II builds on the basics of pronunciation, vocabulary and grammar of the Spanish language learned in Spanish I. The class is designed to help students acquire the skills necessary to satisfy routine social demands. Students will continue to improve upon mastering the present and preterit tenses as well as being introduced to the imperfect and progressive tenses and will begin to discuss when to use the preterit versus the imperfect. Students will strengthen their communicative skills for reading, writing, speaking and listening with an emphasis on daily interactive situations in Spanish. Students will also gain a wider knowledge of cultures of the Spanish speaking world. *Prerequisite: Grade of C or better in NPA's Spanish I or by placement exam*

FL331

Spanish III

Spanish III continues to build on the information of the previous two years of Spanish. There is a greater emphasis on oral proficiency; however, a significant amount of time will be applied to reading and writing. Students should begin mastering the preterit and imperfect tenses. They will be introduced to the subjunctive mood and perfect tenses. Students should have the skills necessary to satisfy social demands and limited work requirements. Students continue to learn about Spanish speaking cultures as well as have a chance to encounter Hispanic cultures first hand by participating in a Hispanic Immersion experience. *Prerequisite: Grade of C or better in NPA's Spanish II or by placement exam*

FL431

Spanish IV

Spanish IV continues to build on the information of the previous three years of Spanish. There is a greater amount of emphasis on speaking, listening, reading and writing proficiency as the class is conducted almost exclusively in Spanish. Students master all pervious tenses as well as synthesize and fine tune all information learned in the past several years of study. New grammar structures to be learned include the future and conditional tenses as well as the past subjunctive. Students also study various forms of literature, film and music of the Spanish-speaking world. Students should have the skills necessary to satisfy social demands, including more abstract conversations involving social and political world issues, and limited work requirements. Students continue to learn aspects of Hispanic cultures as well as have a chance to encounter them first hand by participating in a Hispanic Immersion experience. *Prerequisite: Grade of C or better in NPA's Spanish III or by placement exam*

FL151

American Sign Language I

In American Sign Language (ASL) I, students will learn college-level conversational sign skills enabling them to begin comfortably communicating with the Deaf community. Students will learn the ASL alphabet and number system, appropriate facial expressions, and grammar which accompany the language. Students will also complete research of Deaf culture and its origin. *Prerequisite: None*

FL251

American Sign Language II

American Sign Language (ASL) II is structured to continue the knowledge and growth of ASL and its expressive and receptive skills. Students will advance their studies in college-level ASL, enabling them to confidently communicate with the Deaf community. Students will interact more frequently with the Deaf community and continue their growth and development in ASL grammar, vocabulary, and cultural awareness. They will engage in receptive and expressive activities (ex. dialogue and role play) for the purposes of providing and obtaining information, expressing feelings and preferences, and exchanging ideas and opinions. Students will be involved both individually and in groups to complete these activities. ASL language immersion trip will be in April 2020. *Prerequisite: Grade of C or better in NPA's American Sign Language I*

FL351

American Sign Language III

American Sign Language (ASL) Ill will focus on having students express increasingly complex concepts while showing some spontaneity. Comprehension goals for students may include attaining more facility and faster understanding when viewing the language signed at normal rates and conversing easily within limited situations. Students will find this class signing more; voicing less. Students will be reading out of their culture book weekly to gain rich knowledge of the Deaf community. Deaf Unity events will be exciting, educational activities to solidify and strengthen signing and grammar practices among the students. ASL language immersion trip will be in April 2020. Prerequisite: Successful completion of Sign Language II.

Fine Arts Electives

Graduation Requirements: one credit within Grades 9-12. All courses listed satisfy the requirement. All three public Arizona universities require one credit of fine arts. Although students are only required to earn one credit of fine arts, many NPA students take multiple art or music courses during their high school years.

Art

NPA's art program covers the Arizona Essential Skills for art in grades 6-12. It includes techniques for using various art materials, basic art vocabulary, art concepts and art history. The emphasis is on student participation.

FA101

High School (HS) Art I

This full year course will introduce students to a media based program, laying the basic foundation for both art appreciation and art production skills. Studio production will include: sketching/drawing (using various graphite, charcoal, colored pencils, oil and chalk pastels), painting (watercolor and acrylics) pen and ink, printmaking, graphic design, and 3-D design (sculpture and ceramics). Each unit of study will include lessons which incorporate the elements and principles of art and design, technique demonstrations, art history, and art criticism. Personal interest and exploration are encouraged! Students are required to keep a portfolio and a folder of class handouts. *Students must maintain a "B" average, both fall and spring semester, in order to continue to the advanced level courses.*

FA102

High School (HS) Art II

This full year advanced course will further develop foundation skills learned in Art I by continuing a sequential study of drawing and painting. Artwork and studio projects will include: realistic, abstract, and non-objective styles while incorporating multimedia, three dimensional approaches, and compositional development and/or balance placement/layout into their work. Students will continue to cover techniques for various media and continue to explore art concepts and history through studio projects. Art history and appreciation will be linked to each unit. Students are required to keep a sketchbook, portfolio, and folder of class handouts. Project assignments will be given in class. There is a greater

emphasis placed on personal interest projects at this level. If students are unable to finish the assignments in class, the work needs to be completed at home. *Prerequisite: Art I (HS or MS) and teacher permission.*

FA103 Art III

FA104 Art IV (Capstone Option)

These full year advanced courses will further develop foundation skills learned in Art I & Art II by continuing a sequential study of 2D and 3D media. Increased study in 3D is a possibility. Artwork and studio projects will focus on compositional development. Art concepts, art history and appreciation will be linked to each unit. Students are required to keep a sketchbook, portfolio, and folder of class handouts. Project assignments will be given in class. There is a greater emphasis placed on personal expression and interest projects at this level. If students are unable to finish the assignments in class, the work needs to be completed at home. Projects completed in these courses are eligible for inclusion in an AP Portfolio submission.

Prerequisite: Art I and teacher permission.

Students must maintain an "A" average, both fall and spring semester in order to be considered for placement in Advanced Placement Art. AP Placement is determined by an interview process and portfolio review.

FA132

3D: Sculpture/Jewelry/Clay I

This full year course will focus on the integration of design principles as they relate to depth and space, volume, and surface. Projects will include figurative and non-figurative artwork, architectural models, metal work, ceramics, installation, assemblage and fiber arts. NOTE: Priority given to students who have completed Art 1.

FA133 3D: Sculpture/Jewelry/Clay II FA134 3D: Sculpture/Jewelry/Clay III

This full year course will focus on the integration of design principles as they relate to depth and space, volume, and surface. Projects will include figurative and non-figurative artwork, architectural models, metal work, ceramics installation, assemblage and fiber arts. **Projects completed in these courses are eligible for inclusion in an AP Portfolio submission.** *Prerequisite: Teacher permission.*

FA107

High School (HS) Digital Photography I

Students learn photographic principles and techniques. Students will become proficient in the use of basic digital camera and photo editing software such as Adobe Photoshop. The course explores technical features that are common on digital cameras, and artistic considerations, such as photo composition. Students investigate exposure control and studio lighting as they investigate the elements and principles of design in a variety of photography approaches such as sports photography and portraiture. Photo editing techniques including special effect filtering, collaged digital, collated scanned images and a variety of other beginning to intermediate photo editing techniques are explored. Students will use an image editor to altering images for both image improvement and artistic considerations.

FA108

High School (HS) Digital Photography II

This full year advanced course will further develop foundation skills learned in Digital Photography I. Advanced topics in exposure control and special lighting considerations are investigated. Students will be expected to demonstrate an ability to use the tools competently in the production of their art work; however, the production and analysis of expressive and thoughtful art work is the main objective of this course. For students interested in photography, it is possible to complete AP Studio Art using photography as their focus. *Prerequisite: Digital Photography I and teacher permission.*

FA131

Art Portfolio Development

This full year course will focus on the development of college entrance or advanced portfolio. NOTE: Enrollment by permission only.

FA106

Advanced Placement (AP) Studio Art (Capstone)

This is an accelerated course designed for the highly motivated, talented art student who wishes to pursue college-level studies while still in high school, and for the student who is seriously interested in the practical experience of art. This AP course will give students more opportunity for individualized instruction geared towards their own interests and expertise by developing an area of focus /concentration. Students are expected to work at least 6 hours per week outside of class on their projects in order to complete 24 pieces of artwork by the end of the year. AP Studio Art is not based on a written exam; instead, students submit a portfolio to the College Board for evaluation at the end of the year with 24 slides and five pieces of artwork from the following three sections: Breadth, Concentration, and Quality. Projects will be assigned in class. Two AP Studio Art approaches are offered within our AP Studio Art program: Two-Dimensional Design and Drawing. Projects from previous art courses may be included in the AP portfolio submission. Portfolios are submitted to the AP College Board for scoring and will be returned via mail over the summer. Portfolio submission only applies to Juniors and Seniors. Students who receive a score of a 5, 4, or 3 on their portfolios can potentially receive up to twelve credit hours of art course work depending on the university or college the student attends. AP Art students must be capable of meeting deadlines and maintain at least a "B" average at the end of fall semester to continue. Prerequisites: Art 1, Art 2 and/or teacher recommendation with portfolio review and interview questionnaire. See Art III-V description above for further detail. Students are encouraged to progress through the course sequence at NPA and reserve their AP year for their junior or senior year. AP Exam Fee (from 2019; may be higher in 2020): \$94. This course may count as one the 20 core courses required for graduation.

FA501

Yearbook (Grades 9-12)

Students in this class will produce NPA's yearbook. Before actual production begins, however, students will be required to complete units in yearbook rationale and philosophy (including legal issues); photography; copy, caption, and headline writing; yearbook page layout; and advertising. The fourth quarter will focus on additional publications skills in both print and web design. *Prerequisite(s): Open to grades 9-12*

Music

<u>Strings</u>

FA221

Intermediate Strings (Grades 7-10)

This is a course for students who already play an orchestral string instrument (bowed strings) and want to develop orchestral skills. The format includes time and instruction in sectionals and time for ensemble as a whole to rehearse. Members of this group will be offered the opportunity to compete in regional/state competitions. This group will perform regularly throughout the year. Students are responsible for providing their instrument. May be repeated for credit.

Placement by audition. Students who do not play a bowed stringed instrument but want to learn, or students who play harp, may be admitted into the class by permission of the instructor.

FA231

Strings Orchestra (Grades 8-12)

This class is intended for advanced students who play an orchestral string instrument and want to polish their orchestra skills. Students will explore a variety of musical styles. Class time includes rehearsal as a large group, instruction in advancing techniques, and sectional work. Regular practice is required. This group will perform regularly throughout the year. Students will be offered the opportunity to compete in regional/state competitions and may travel for competitions and/or festivals. Bring instruments the first day of class unless otherwise notified. *Placement by audition. Students progress into Orchestra from Intermediate Strings or Symphonic Band.*

Band

FA229

Symphonic Band (Grades 7-10)

Symphonic Band is open to any grade level student with less than 1.5 years of playing experience. Symphonic Band will teach students how to play a musical instrument or learn a new instrument. Students will be challenged to complete state and national proficiencies in order to pass to Honor Band. Students will be involved in music composition, theory, explorations, and rhythm training through World Music Drumming (Djembe) techniques. Students will compete in regional/state competitions and solo and ensemble festivals. Class performances are mandatory. Regular practice is required.

FA293

Advanced Jazz Band (Grades 9-12)

Advanced Jazz is comparable to an honors elective in other humanities. Students can only be placed in this group by audition and permission of the band director. Advanced Jazz Band will focus on the performance of jazz, blues and funk styles as well as the application of music theory through improvisation. The music is difficult and requires highly motivated participants. The Advanced Jazz Band may perform for a variety of smaller venues around town in addition to concert programs here at NPA. Members of this group will be offered the opportunity to compete individually in regional/state jazz

competitions. Private lessons are recommended for students in this ensemble. Class performances are mandatory. Regular practice is required. *Prerequisite(s): 3 years playing experience. Placement by audition only.*

Choir

FA242

Concert Choir (Grades 9-12)

High school main choir. Students will learn and perform songs – 4 and for part, learn music theory and sight singing using Solfege (Do, Re, Mi...). There will be a concert at the end of each semester as well as community performances, high school honor choir opportunities, and a choir festival in the spring. *Prerequisite(s): Placement by audition only.*

FA251

Jazz Choir (Grades 9-12)

Top High school Choir. Students must audition. Class is limited to 20 students. Students will learn and perform standard and contemporary jazz compositions/arrangements; advanced music theory and sight singing using Solfege (Do, Re, Mi...). There will be at least one concert at the end of each semester, as well as community performances, high school honor choir opportunities, and at least one jazz choir festival in the spring. *Prerequisite(s): Placement by audition only*

Guitar

FA235

Beginning Guitar (Grades 8-12)

Beginning guitar is for students who have never played guitar before or who have had limited experience. We will learn a variety of guitar techniques and styles, all of which include chord accompaniment and note reading. We focus primarily on classical technique and encourage both pick and finger-style playing. Nylon string guitars are recommended, but steel string acoustic guitars are also acceptable. Electric guitars are not used in this class. Class performances are mandatory. Regular practice is required.;

FA236

Intermediate Guitar (Grades 9-12)

This continuation of Beginning Guitar focuses solely on solo guitar playing using fingerstyle techniques. The students in this course will gain knowledge of solo guitar literature, including current and historical compositions. Left and right hand development will be focused on using a classical technique to enhance the student's knowledge of the instrument and experience the wide range of techniques available as a solo instrument. Nylon string guitars are highly recommended.

Prerequisite(s): Completion of Beginning Guitar or instructor permission

FA238

Advanced Guitar (Grades 10-12)

Advanced Guitar builds upon the foundations of classical technique for the left hand but only develops pick style playing with the right hand. Nylon string guitars are recommended, but steel string acoustic guitars are acceptable. This course covers theory, popular music, and jazz. Electric guitars are not used in this class unless otherwise noted by the instructor. Class performances are mandatory. Regular practice is required. *Prerequisite(s): Completion of Intermediate Guitar or audition.*

FA237

Guitar Performance Ensemble (Grades 11-12)

Guitar Ensemble at NPA is a professional style performing ensemble. We compete nationally each year and locally. Students may enter after completing all other levels or by audition. The group will perform a wide variety of styles at or approaching a professional level. The group will perform at area restaurants, bookstores, coffee shops, etc., as well as travel to guitar festivals and competitions. Players must be well versed in all fundamental chords, including barre chords, and be able to read treble clef music. Players must also be familiar with positions I – VIII on the fret board. Classical guitars are used – nylon string of reasonably good quality. Private lessons are recommended for students in this ensemble. Class performances are mandatory. Regular practice is required. *Prerequisite(s): Placement by audition or permission of the instructor.*

<u>Drama</u>

FA402

Theater (Grades 8-12)

Students will learn acting techniques, improve, and stage tech - including set building, costuming, lighting and sound. Students will learn and practice scenes, as well as monologues. During the spring semester students will learn songs from musicals and practice musical audition pieces. There will be at least one performance each semester: students will perform a play in the Fall and in the spring students will perform a musical.

<u>Dance</u>

FA301

Dance I

The dance class style is Jazz. We will be working on Jazz dances, technique, steps that are progressive, along with correct body posture, rhythm, flexibility, coordination and conditioning. A variety of turns, leaps, jumps and across the floor combinations will be taught. We will also be working on Lyrical dances, expressing music and lyrics through dance. Students will have the opportunity to actively participate with choreography in selected parts of a dance. There will be at least two performances throughout the year with other opportunities to perform. *Prerequisite(s): None; Open to Grades 8-12*

FA302

Dance II

A continuation of dance for students at an advanced skill level beyond the first year course. *Prerequisite(s): Dance I and/or permission of the instructor.*

FA303

Dance III

A continuation of dance for students at an advanced skill level beyond the second year course. *Prerequisite(s): Dance II and/or permission of the instructor.*

FA304

Dance IV

A continuation of dance for students at an advanced skill level beyond Dance III. *Prerequisite(s)*; Dance III and/or permission of the instructor

FA311

Elevation Dance

Entrance into this class will be by audition. Dancers will be required to show advanced levels of technique, flexibility, style & expression. This is a physically challenging class for highly motivated students. *Prerequisite(s): Dance III &/or permission of instructor*

Physical Education Electives

PE102

Recreation Fitness/Health (Grades 9-12)

Intended for students in Grades 9-12, this course emphasizes basic skill development in all areas of sports, games, and fitness. The course provides more specific and individualized instruction with a decreased level of intense competition. The classroom health component addresses Arizona State Standards for high school health education, including fitness, nutrition, disease prevention, personal health behaviors, and many others in an effort to promote a healthy lifestyle both physically and mentally.

PE103

Sports/Physical Education (Grades 8-9)

Intended for students in Grades 8 and 9, this class offers a higher level of competition and skill development than PE001 or PE102. Previous athletic experience or participation in team sports is preferred.

PE104

Sports/Physical Education (Grades 10-12)

Intended for students in Grades 10-12, this class offers a higher level of competition and skill development than PE103. Previous athletic experience or participation in team sports is preferred. *Prerequisite: Consultation with instructor*

PE105

Yoga (Grades 9-12)

This class will explore practices such as yoga postures, breathing exercises, core strengthening, deep relaxation and meditation techniques. Students will dress out and will be expected to participate daily. Student achievement in this course will be measured through participation, posture/pose assessment, projects, and demonstrations.

PE106

Weight Lifting (Grades 10-12)

Weight training is a class for upper class male and female students interested in personal fitness. Class is capped at 14 students. Students will learn proper form and basic physiology while performing workouts designed to their specific need/goals.

PE107

Sports Performance/Medicine (Grades 10-12)

Sports Medicine/Sports Performance is a class offered 7th Period that will be instructed by a certified Athletic Trainer (ATC) in Partnership with Northern AZ Healthcare and Flagstaff Sports Institute. This course will count as PE elective credit towards graduation. The course focuses on enhanced physical training to increase athletic performance. This course also will have anatomy and physiology components included and can serve as an introductory into medical fields of study. The contracted course instructor will also be on staff at NPA as a certified Athletic Trainer for NPA home games and practices for all sports protecting student athlete safety. *Note: Priority will be given to juniors and seniors*

Other Electives

EL000

Integrated Learning Strategies

Integrated Learning Strategies is a non-credit course which course offers supportive instruction to teach skills necessary for success across all of their coursework including time management, goal-setting, research skills, note-taking skills, and decision-making skills.

Prerequisite(s): Demonstrated ability to remain on task during individual work situations

SS470

Global Issues (Grades 9-12)

This class is designed to build an awareness about global issues and to engage in positive solutions for a sustainable future across the world and in our own communities. The curriculum includes social studies, environmental science, language, literacy and real-world math. Case studies, hands-on activities, one-day educational field trips, volunteer work and engaging guest speakers will give you a chance to step beyond the textbook and be part of the solution! Little homework is required as we complete most of the assignments in class and in small groups. *Prerequisite: None.*

SS471

Introduction to Cultural Anthropology (Grades 11-12) (Dual Enrollment Option)

Culture is what children find when they are born. As they are instantly immersed in a set of shared attitudes, values and practices, passed down from generation to generation, they quickly learn the ways of their people and acquire a sense of common identity. We find an amazing diversity of traditions all over the world and it is the purpose of Cultural Anthropology to understand this complex tapestry. In an increasingly globalized and multicultural environment, Anthropology gives a strong foundation for any career and throughout this semester, we will see how anthropologists apply their skills to tackle social, economic, and cultural issues in the contemporary world. *Introduction to Anthropology* is part of the Coconino Community College's High School to CCC (HS2CCC) program. Under the Arizona General Education Curriculum (GIEC), this dual enrollment class will give students 3 credits, whether in Arts and Humanities or in Social and Behavioral Sciences. It also meets GIEC special requirements (Ethnic, Race and Gender Awareness or Contemporary Global /International or Historical awareness).

ANT 102 at CCC is excellent course for high school juniors and seniors who plan to transfer to an Arizona university, as it counts as a general education core class at ASU and NAU, and as a departmental elective course at UA. It also meets a couple of special requirements at all these institutions. Furthermore, ANT 102 is accepted as a general education course in most out of state universities.

EL601

Introduction to Psychology (Grades 11-12)

This course covers a broad range of phenomena relating to what it is to be human. In this course, students will study the science of psychology including theories, research methods and experiments, the brain and behavior, memory, human development, sleep/sleep disorders, states of consciousness, learning, motivation and emotion, personality, psychological disorders, therapies, and social psychology. This course can be considered as a fifth core class in place of a fourth year of science or foreign language.

EL950

Introduction to Computer Science with Java Script (Grades 9-12)

The Code HS introduction to computer science curriculum teaches the foundations of computer science and basic programming, with an emphasis on helping students develop logical thinking and problemsolving skills. Once students complete the CodeHS Introduction to Computer Science course, they will have learned material equivalent to a semester college introductory course in Computer Science and be able to program in JavaScript. *Prerequisite(s): Algebra I. (Course Fee projected to be \$85)*

EL951

Advanced Placement (AP) Computer Science Principles (Grades 9-12)

AP Computer Science Principles is designed to be equivalent to a first semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data, and working with large data sets to analyze, visualize, and draw conclusions from trends. The course engages students in the creative aspects of the field by allowing them to develop computational artifacts based on their interests. Students will also develop effective communication and collaboration skills by working individually and collaboratively to solve problems and will discuss and write about the impacts these

solutions could have on their community, society, and the world. *Prerequisite(s): Algebra I. Course Fee projected to be \$85 for SY 2018-19. AP Exam Fee (from 2019; may be higher in 2020): \$94*

EL302

Model United Nations (MUN) (Grades 9-12)

MUN students will build deeper understanding of current global issues, make evidence-based arguments while maintaining diplomacy, and develop formal speaking skills, often via role playing from a foreign country's perspective. The material will focus on modern history subjects as they relate to current global concerns for the whole class, with each individual choosing from approximately 20 focus topics per year. These topics include issues such as women's studies, medicine, humanitarian causes, regulating emerging technology, and sustainable resources. The classroom activities will include role playing, video, research, discussion, and presentation by both teacher and students. The culminating activity of this class will be the University of Arizona Conference in March.

EL941

Introduction to Engineering Design (Grades 11-12)

This course introduces the design process, problem-solving techniques, team-work skills, oral and written communication skills, presentation skills and tools for success in academic and professional careers. These skills will be developed through reading and writing assignments, multiple hands-on design projects, exposure to the 3-dimensional software SolidWorks, and some engineering guest speakers. Course fee required. This course can be considered as a fifth core class in place of a fourth year of science or foreign language.

CS401

Advanced Placement (AP) Seminar

In AP Seminar, students will examine materials like news stories, research studies, and literary works so that they may craft arguments to support a particular point of view and communicate it effectively through the use of various media. Students will be assessed through a combination of individual and team projects and presentations as well as through a written exam. AP Seminar is the first of two courses in the **AP Capstone™** program. AP Research is the second course. If you earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of your choosing, you will receive the **AP Capstone Diploma™**. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, if you earn scores of 3 or higher in AP Seminar and AP Research only, you will receive the **AP Seminar and Research Certificate™**. AP Exam Fee (from 2019; may be higher in 2020): \$142

CS402

Advanced Placement (AP) Research

While working with an expert advisor, students in AP Research will explore an academic topic, problem, or issue that interests them and design, plan, and conduct a year-long research-based investigation to address it. The course culminates in an academic paper of 4,000-5,000 words and a presentation, with an oral defense; during which you will answer 3-4 questions from a panel of evaluators. AP Research is the second course in the **AP Capstone™** program. AP Seminar is a prerequisite for AP Research. If you earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of your choosing,

you will receive the **AP Capstone Diploma™**. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, if you earn scores of 3 or higher in AP Seminar and AP Research only, you will receive the **AP Seminar and Research Certificate™**. Prerequisite: AP Seminar and approval of instructor AP Exam Fee (from 2019; may be higher in 2020): \$142

EN203

Creative Writing I (10th-12th Grade)

This course is available for 10th through 12th grade students. Students will explore a wide range of texts that cover specific themes, genres, or styles and study specific writing techniques that are used in those texts. To further build upon these skills, students will compose their own works while applying the techniques they've been reading and analyzing. Creative written expression will be the focus of the course, and students will gain a wide range of tools to use in their personal fiction writing, as well as in their more formal academic writing. Skills and techniques used in their English courses will be emphasized and focused on as needed for the individual student and the writing assignment. Students will have the opportunity to learn countless techniques and apply them to short creative writing; additionally, students will compose multiple-draft pieces that will be published in various formats throughout the year.