

# Mission Heights Preparatory High School Course Descriptions

## Mission Heights Preparatory High School Graduation Requirements

**Minimum Credits Required:** 24 Credits

### **Course Requirements:**

Mission Heights Preparatory High School operates on a 3 class by 4 quarter schedule system that provides students with an opportunity to take a 4th class each quarter. Students must be registered in a minimum of three courses during each quarter per school year. Students who are enrolled in CAVIT or CAC in the afternoon must take a Zero hour class as well. Students must complete and receive a passing grade in 24 credits of coursework for graduation. The curriculum is demanding, and many courses are required core area credits (18 credits). Students must also complete numerous electives during their course of study (6 credits).

### **Required Course of Study:**

- 4.0 Credits of English Language Arts
- 4.0 Credits of Mathematics
- 3.0 Credits of Lab Science
- 3.0 Credits of Social Studies
- 1.0 Credits of Fine Arts
- 2.0 Credits of Foreign Language
- 1.0 Credits of College Preparation Electives : College Prep and Public Speaking
- 6.0 Credits of Electives

### ***Honors Courses***

Admission to college is becoming more competitive every day. It is imperative that students have an academic record that will make them stand out. Taking honors courses will help give students that competitive edge.

Honors courses at Mission Heights Preparatory High School have been developed to help meet the needs of highly motivated students. Honors courses offer the same curriculum as regular courses, but do so in a more comprehensive format. Honors courses cover topics at a higher level and require students to engage in the content at a deeper level. Students will develop their critical thinking skills and learn how to apply, evaluate, and synthesize concepts. The honors program at Mission Heights Preparatory High

School is a combination of Honors Level, Advanced Placement and Concurrent Enrollment courses. There is no honors option for foundations courses.

### Honors Placement

Placement in Honors courses is decided by the student at the beginning of the course. Students will sign a contract with the teacher at the beginning of the course signifying their commitment to the honors requirements.

### Benefits of Honors Courses

- Students gain an edge in the college admission process. College admissions officers look for students who take rigorous courses as designated by the “Honors” label.
- Students who take AP courses are able to receive college credit depending on how well he/she scores on a comprehensive examination of the subject. Most colleges will give credit for scores of 3 or higher on AP exams (AP score range is from 1-5).
- Students who take and pass concurrent enrollment courses at Central Arizona College will not only earn high school credit, where applicable, but also college credit, and in most cases, Honors credit.
- Honors courses are more difficult than non-honors classes, so the grades in honors courses are given an extra grade point. With the standard four-point grading scale; A = 4 grade points, B = 3 points, C = 2 points, etc. With the honors scale; A = 5 grade points, B = 4 points, and C = 3 points; therefore, when these grade points are averaged with regular grades, a student’s overall GPA can raise higher than 4.0
- College courses are more rigorous than standard high school courses. By taking challenging honors classes in high school, students will be better prepared to succeed in college.

Taking honors courses in high school will prepare students for the rigors of college. All students who feel up to the challenge of honors classes should talk to the school administration for more information about the competitive courses at Mission Heights Preparatory High School.

## List of Subjects and Courses

### Fine Arts & Humanities

Digital Painting  
Photoshop  
Game Design  
Introduction to Drama  
Acting/Advanced Drama  
Survey of the American Musical  
Theatre  
Introduction to Music  
Piano  
Choir

### Foreign Language

Spanish 1  
Spanish 2  
Spanish 3  
Spanish 4  
Spanish 5  
Spanish 6  
Spanish Immersion 1  
Spanish Immersion 2

### English/Language Arts

ELA Foundations  
English 9.1  
English 9.2  
English 10.1  
English 10.2  
English 11.1  
English 11.2  
English 101  
English 102  
Eng 12.1: Research Writing  
English 12.2: Gothic Lit  
English 12.2: Shakespeare  
English 12.2: Creative Writing  
English 12.2: Mythology  
English 12.2: Journalism

### Mathematics

Algebra Foundations  
Algebra 1.1  
Algebra 1.2  
Geometry 1  
Geometry 2  
Algebra 2.1  
Statistics  
Algebra 2.2  
Senior Math 150  
Trigonometry

Pre-Calculus  
AP Calculus A & B  
AP Calculus Test Prep

### Physical Education

Physical Education  
Nutrition/Health  
Team Sports

### Science

Biology 1  
Biology 2  
Chemistry 1  
Chemistry 2  
Human Anatomy  
Human Physiology  
Agricultural Science 1  
Agricultural Science 2  
Physics 1  
Physics 2  
Conceptual Science

### Social Studies

World History 1  
World History 2  
US/Arizona History 1 & 2  
US Government  
Economics  
AP World History 1 & 2  
AP US History 1 & 2  
AP US Government  
AP History Test Prep

### AVID

Phantom 101 (Pre-AVID)  
AVID 9  
AVID 10  
AVID 11/12

### College Preparation Courses

Public Speaking  
College Prep

### Electives

Yearbook 1  
Yearbook 2  
Intro to Philosophy  
Advanced Philosophy  
Psychology  
Youth Entrepreneurs 1

Youth Entrepreneurs 2  
Film Literacy  
Pop Culture  
Intro to Competitive Gaming  
Advanced Competitive Gaming  
Intro to Politics  
Advanced Politics

### \*CBE Courses: Core

US History  
World History  
US Gov.  
English 1-4  
Algebra 1 & 2  
Pre calculus  
Geometry  
Biology  
Chemistry  
Physics  
Environmental systems  
Psychology

### \*CBE Courses: Electives

Animation  
Criminology  
Intro to Culinary Arts  
Creative Writing  
Music Appreciation  
Personal Fitness  
Forensic Science  
Early Childhood  
Gaming Design  
Gothic Literature  
Health  
Philosophy  
Journalism  
Nutrition & Science  
Personal & Family Finance  
Sociology  
Art History  
World Geography  
Logic 1 & 2  
Career Prep

\*CBE course eligibility is determined by the school leader and only assigned on an 'as-needed' basis.

## **Fine Arts & Humanities**

***Students must complete 1 academic credit (2 classes) in order to meet the MPHS graduation requirement.***

### **Digital Painting**

0.50 Credit Prerequisites: Photoshop

Digital Painting is a drawing class using a digital medium, specifically Photoshop. Students will be using WACOM tablets to draw, paint and design things from basic forms to complex characters.

### **Photoshop**

0.50 Credit Prerequisites: none

Students will receive basic and advanced training in Photoshop, using the current version: CS6. Students learn to manipulate and touch up photos, create graphic designs, and build visually compelling info graphics and layouts.

### **Game Design**

0.50 Credit Prerequisites: Photoshop

The Game Design class gives students an introduction to the game industry and the theory of design. Students learn game design principles and put them into practice by designing some simple games such as pen and paper RPGs, card games, and board games. Additionally, students will also gain experience using game engines, specifically Unity. Game design includes some photoshop instruction, writing for analysis and reviews, and participating in longer term group projects.

### **Introduction to Drama**

0.50 High School Credit Prerequisites: None

Introduction to Drama Class introduces students to theater arts via the Lee Strasberg method. Weekly evaluations of class handouts will take place. Topics of evaluation include: focus, teamwork, concentration, self-discipline, scene preparation for acting, and scene acting performance. Students are tested weekly by Socratic testing. Students will be expected to turn in daily or weekly evaluations on PowerPoints, textbook/handout material, and /or performance evaluations. All students will perform at least one acting scene.

### **Acting/Advanced Drama**

0.50 High School Credit Prerequisites: Introduction to Drama Class (No exceptions)

This class allow students to prepare and act a variety of scenes using the Lee Strasberg method. Students are evaluated by peers and the instructor utilizing techniques learned in Introduction to drama class. Students may be expected to perform an after school theatrical production.

### **Introduction to Music**

0.50 High School Credit Prerequisites: None

Students will become music literate; knowing how to read music on the grand staff. They will be taught basic music theory and proper technique. Students will refine their critical listening and will practice ear training. They will learn to use expressive elements such as dynamics, phrasing, and tempo. Students will join their fellow students as a supportive community of musicians and will practice an instrument of their choosing on their own over the last section of the quarter, and will share what they have learned with the class as part of their final.

### **Piano**

0.50 High School Credit Prerequisites: Intro to Music or Experience

Students will learn to play the piano keyboard. They will have the opportunity to perform. They will become music literate and will read music on the grand staff. They will be taught basic music theory and proper technique. Students will refine their critical listening and will practice ear training. They will learn to use expressive elements such as dynamics, phrasing, and tempo.

### **Choir**

0.50 High School Credit Prerequisites: Intro to Music or Experience

Students will learn and practice proper vocal technique. They will have the opportunity to perform. They will become music literate and will read music on the grand staff. They will be taught basic music theory and sight reading skills. Students will refine their critical listening and will practice ear training. They will learn to use expressive elements such as dynamics, phrasing, and tempo. Students will join their fellow students as a supportive community of musicians and will have opportunities to perform as a choir in the community and at the school.

### **Survey of the American Musical Theatre**

0.50 High School Credit Prerequisites: None

In this course we will be discussing the history of the American musical theatre starting at the beginning of the 20th Century to the current day. Topics will include *Showboat* as the first proper musical, Rodgers & Hammerstein and the formation of the book musical, the introduction of non-linear storytelling with *Company*, the rise of the mega-musical in the 80s, jukebox and Disney musicals of the 90s. The themes and topics of shows will be discussed and how it relates to American culture and the zeitgeist of the time the show was produced.

## **Foreign Language**

***Students must complete 2 academic credits (4 classes) of the same foreign language in order to meet the MHPHS graduation requirement.***

### **Spanish 1**

0.50 Credit Prerequisites: None

Spanish 1 is a foreign language class that focuses on the basic building blocks of a language (vocabulary), the rules of a language (grammar), and introduces different cultures and customs among Spanish-speaking countries. Spanish 1 introduces basic vocabulary like: after school activities, describing yourself and others, daily schedules, school subjects, foods, and members of the family. The course explains general grammar rules like: subject pronouns, possessive adjectives, and different present tense verbs. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish 2**

0.50 Credit Prerequisites: C or better in Spanish 1

Spanish 2 is a foreign language class that focuses on basic to intermediate vocabulary, grammar, and explains different cultures and customs among Spanish-speaking countries. Spanish 2 introduces new vocabulary like: house items and rooms, food, sports, body parts, and places in the city. The course introduces grammar rules like: irregular verbs, past tense verbs, affirmative/negative words, and direct object pronouns. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish 3**

0.50 Credit Prerequisites: C or better in Spanish 2

Spanish 3 is a foreign language class that focuses on intermediate vocabulary, grammar, and explains different culture and customs among Spanish-speaking countries. Spanish 3 explains important vocabulary in relation to: trips, vacations, health, daily routines, and shopping. The course practices grammar rules like: direct/indirect object pronouns, irregular past tense verbs, demonstrative adjectives and pronouns, present progressive verbs and reflexive verbs. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish 4**

0.50 Credit Prerequisites: C or better in Spanish 3

Spanish 4 is a foreign language class that focuses on intermediate-advanced vocabulary, grammar, and explains different culture and customs among Spanish-speaking countries. Spanish 4 explains important vocabulary in relation to: telling stories, preparing and describing foods, ordering meals, making movies, school newspaper terms, and family. The course practices grammar rules like: affirmative and negative commands, affirmative and negative words, double object pronouns, present subjunctive tense, comparatives, superlatives and imperfect verb tenses. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture

### **Spanish 5**

0.50 Credit Prerequisites: C or better in Spanish 4

Spanish 5 is a foreign language class that focuses on advanced vocabulary, grammar, and discusses different culture and customs among Spanish-speaking countries. Spanish 5 explains important vocabulary in relation to: Nature, family relationships, volunteer activities and projects, environmental concerns and presenting and supporting opinions. The course practices grammar rules like: preterite vs imperfect, affirmative and negative commands, present subjunctive tense, por vs para, and future tense. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish 6**

0.50 Credit Prerequisites: C or better in Spanish 5

Spanish 6 is a foreign language class that focuses on advanced vocabulary, grammar, and explains different culture and customs among Spanish-Speaking countries. Spanish 6 explains important vocabulary in relation to: professions, positive and negative emotions, travel, leisure activities, neighborhood living, future planning and pursuing a career. The course practices grammar rules like: present subjunctive tense, conditional tense, reported speech, all perfect tenses and si clauses. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish Immersion 1**

1.0 Credit Prerequisites: None

Spanish Immersion 1 is a fast paced foreign language class that focuses on the basic building blocks of a language (vocabulary), the rules of a language (grammar), and introduces different cultures and customs among Spanish-speaking countries. Spanish Immersion 1 introduces vocabulary like: after school activities, describing yourself and others, daily schedules, school subjects, foods, members of the family, house items and rooms, food, sports, body parts, and places in the city. The course explains grammar rules like: subject pronouns, possessive adjectives, present tense irregular and regular verbs, past tense verbs, affirmative/negative words, and direct object pronouns. Students do listening exercises, write sentences and begin speaking in Spanish. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

### **Spanish Immersion 2**

1.0 Credit Prerequisites: C or better in Spanish Immersion 1 or Spanish 2

Spanish Immersion 2 is a fast paced foreign language class that focuses on intermediate vocabulary, grammar, and explains different culture and customs among Spanish-speaking countries. Spanish Immersion 2 explains important vocabulary in relation to: trips, vacations, health, daily routines, shopping, telling stories, preparing and describing foods, ordering meals, making movies, school newspaper terms, and family. The course practices grammar rules like: direct/indirect object pronouns, irregular past tense verbs, demonstrative adjectives and pronouns, present progressive verbs, reflexive verbs, affirmative and negative commands, double object pronouns, present subjunctive tense, comparatives, superlatives and imperfect verb tenses. Students do listening exercises, write stories and speak Spanish throughout the class. The course provides a wide array of activities, games, videos and listening activities to enable students to communicate and learn another language and culture.

## **English/Language Arts**

***A student must complete 4 academic credits (8 classes) of English/Language Arts in order to meet the MPPHS graduation requirement.***

### **ELA Foundations**

0.50 Credit Prerequisites: None

This course covers fundamental English concepts and is designed to provide students an opportunity to increase their English skills prior to entering an MHP English course. Course topics include fiction and non-fiction text, identifying the elements of literature, and introductory writing skills that will help students be more successful with the rigor of future MHP English classes. **This course does not meet the English requirement for graduation and is considered an elective credit.**

### **English 9.1**

0.50 Credit Prerequisites: Placement Test Eligibility

Freshman English 1 focuses on the development of reading skills, writing skills, and speech and language concepts. By the end of this course, students will be able to comprehend fiction and nonfiction text, identify the elements of literature and write a narrative essay, persuasive essay, and mini research paper using MLA guidelines. \*This class can also be taken as a honors class. These students will do an advanced study of skills and literature done in the original class.

### **English 9.2**

0.50 Credit Prerequisites: Placement Test Eligibility

Freshman English 2 concentrates on reading comprehension, and applying the writing process utilizing the Six Traits of Writing. Students will comprehend figurative language and analyze the elements of literature through reading fiction and nonfiction prose and poetry. Students will also learn to write a literary response essay, full research paper, and various forms of poetry. \*This class can also be taken as a honors class. These students will do an advanced study of skills and literature done in the original class.

### **English 10.1**

0.50 Credit Prerequisites: English 9.2

Sophomore English, students will explore and analyze works of drama, poetry, short stories, and novels as well as other written and visual media in order to leverage its content and style into improving the student's writing style. Two novels and several essays are involved on various topics of current interest. Emphasis will be placed on intensive review of usage and mechanics, word development and oral presentation skills. The skills taught within this course will provide students with the skills necessary to be successful on standardized tests and build their reading and writing ability for more advanced coursework. \*This class can also be taken as a honors class. These students will do an advanced study of skills and literature done in the original class.

### **English 10.2**

0.50 Credit Prerequisites: English 9.2

Students focus on writing, where story writing, creativity and persuasiveness combine into interesting forms of advertising, books, electronic stories and other literary forms as created by students themselves. By focusing on writing, students are challenged to be creative, critical, and complex. Students will also develop thoughts and ideas into quality verbal and written forms. Emphasis will be placed on intensive review of usage and mechanics, word development and oral presentation skills. \*This class can also be taken as a honors class. These students will do an advanced study of skills and literature done in the original class.

### **English 11.1**

0.50 Credit Prerequisites: English 10.2

This course provides a chronological study of American Literature. The course selections will cover historical information, fiction, nonfiction, poetry, plays, and other writings of specified periods. The course will also include vocabulary, grammar, projects, essays, creative writing assignments, two novels studies, a drama study and quizzes.

### **English 11.2**

0.50 Credit Prerequisites: English 10.2

This course is a continuation of English 11.1. It provides the second part of the chronological study of American Literature. The course selections will cover historical information, fiction, nonfiction, poetry, plays, and other writings of specified periods. The course will also include vocabulary, grammar, projects, essays, creative writing assignments, three novels studies, a research paper and presentation, and quizzes. \*This class can also be taken as a Pre-AP class. These students will do an advanced study of skills and literature done in the original class.



### **English 12.1: Research Writing**

0.50 Credit Prerequisites: English 11.2

This course provides the skills and practices to write effective research papers, focusing on finding and evaluating a variety of sources; essay organization with thesis statements, sentence and paragraph cohesion, and understanding/avoiding logical fallacies; identifying assumptions, ambiguity, ethos, logos, and pathos; proper formatting including citations in-text and reference pages.

### **English 12.2: Shakespeare**

0.50 Credit Prerequisites: English 11.2

This course provides a chronological study of Shakespeare and his works. The course will include a sampling of select poems, comedies, tragedies, and histories by the great Bard himself. The course will also include literary analysis, sonnets, and creative writing assignments which demonstrate an understanding of Shakespeare's life, work, and theater in general.

### **English 12.2: Creative Writing**

0.50 Credit Prerequisites: English 11.2

This course is a hands-on "workshop" introduction to the fundamental working modes (poetry, short stories, and drama) of creative writing, based in a broad survey of literary approaches and viewed from the standpoint of the writer.

### **English 12.2: Mythology**

0.5 Credit Prerequisites: English 11.2

This course will examine classical and world mythology. It will focus specifically on creation myths from various world cultures, classical mythology, the hero's journey, and epics. Critical thinking, research, small group discussions, and oral presentations will be emphasized.

### **English 12.2: Journalism**

0.5 Credit Prerequisites: English 11.2

English 12.2 is a senior English course. This course is a study in journalism, including its origins, modern issues, and how to produce it. The course selections will cover news writing from a variety of print, broadcast and online sources. The course will also include vocabulary, grammar, news writing assignments (hard news, briefs, features, opinion, and blogs), news analysis and quizzes. Students will also participate in the creation and maintenance of a school newspaper.

### **English 12.2:Gothic Literature**

0.5 Credit Prerequisites: English 11.2

The success of this class relies heavily on your ability to analyze the various texts we'll be reading. Mastering the analytical methods we'll discuss will allow you to uncover the themes, motifs, and issues of Gothic literature. By the end of the course, you will be able to critically engage any Gothic text, image, or artifact and, beyond that, analyze the world around you in a new way.

### **ENG101 English Composition III**

3 Credits (3 Lectures) ENG 1101 R

Prerequisite: ENG100. Prerequisite or corequisite: RDG100.

Advancement of ability to analyze and write academic, college level essays with an emphasis on developing ideas and using a process of writing, revising and editing to create organized, coherent, fully articulated essays that reflect the conventions of English grammar, mechanics and usage.

### **ENG102 English Composition IV**

3 Credits (3 Lectures) ENG 1102

Prerequisite: ENG101

Emphasis on critical thinking, close reading, analysis and advanced research skills through the development, writing and revision of complex arguments.

## **Mathematics**

***A student must complete 4 academic credits (8 classes) of Mathematics in order to meet the MHPHS graduation requirement.***

### **Algebra Foundations**

0.50 Credit Prerequisites: None

This course covers fundamental math concepts and is designed to provide students an opportunity to increase their math aptitude prior to entering an Algebra course. Course topics include math vocabulary, operations on rational numbers, order of operations, simplifying and evaluating algebraic expressions, culminating in solving basic equations and inequalities. **This course does not meet the Mathematics requirement for graduation and is considered an elective credit.**

### **Algebra 1.1**

0.50 Credit Prerequisites: Placement Test Eligibility or Algebra Foundations

This course will involve further study of Algebraic concepts including graphing and writing linear functions, solving systems of equations and graphing systems of inequalities. This course will provide a solid foundation for further study in mathematics by helping students develop computational, procedural, and problem-solving skills. Students will be taught how to translate real-life situations to mathematical models and obtain solutions.

### **Algebra 1.2**

0.50 Credit Prerequisites: Placement Test Eligibility or Algebra 1.1

This course completes the first-year Algebra sequence by introducing students to exponential functions, including growth, decay and interest problems. Students will also be taught how to simplify algebraic expressions using the properties of exponents, operations with scientific notation, performing operations on polynomials, factoring polynomials, and solving quadratic equations. Students will also engage in basic statistics investigations. Students will continue to model real-world situations using the skills learned in this class by applying problem solving strategies.

### **Geometry 1**

0.50 Credit Prerequisites: Algebra 1.2 or Placement Test Eligibility

This course includes communicating with vocabulary and notation of Geometry, deductive reasoning, problem solving and applications of Geometric Theorems, drawings and models to real world problems. The student will make connections between Geometry, Algebra, discrete mathematics, and number theory. Students will also do basic geometric constructions, proofs, and transformations of shapes and graphs.

### **Geometry 2**

0.50 Credit Prerequisites: Geometry 1 or Placement Test Eligibility

This course is a continuation of Geometry 1. Students will solve problems involving ratios and proportions, similarity, applications of the Pythagorean Theorem, and right triangle trigonometry. This

course also contains the properties and formulas of polygons and circles. Students will solve problems involving the area of 2-dimensional shapes, surface area and volume of 3-dimensional solids, ratios of perimeter, area, and volume. Students engage in using Geometry to model and solve real-world applications.

### **Statistics**

0.50 Credit Prerequisites: Geometry 2, Algebra 2.1 Recommended

This course involves the study of both Probability and Statistical modeling. Students will learn how to calculate various kinds of probability (experimental and theoretical, independent and conditional), and solve problems based on those probabilities. Students will also learn how to collect, organize, and interpret data, statistics, and displays of data.

### **Algebra 2.1**

0.50 Credit Prerequisites: Geometry 2 or Placement Test Eligibility

This begins with a review of concepts from Algebra 1 (solving and graphing linear equations, linear systems and factoring polynomials), as well as increasing the level of complexity of those problems. Imaginary and Complex numbers will be introduced, so that students can perform operations on them. Students will learn how to solve and graph Quadratic Equations. Students will also be able to solve systems of equations involving linear and quadratic equations.

### **Algebra 2.2**

0.50 Credit Prerequisites: Algebra 2.1

This course continues the formal study of algebraic concepts with the study of polynomial, radical, exponential and logarithmic functions and equations (specifically how to solve and graph them), and applying exponential growth and decay models. Students will also be introduced to advanced functions, such as inverse functions, rational functions, and basic trigonometric concepts such as degrees and radians, special angle trigonometry, and fundamental identities, as well as graphing basic trigonometric functions.

### **Senior Math 150**

0.50 Credit Prerequisites: Algebra 2.2

This course builds on the algebra concepts learned in prior courses. Students will learn to apply advanced algebra skills to areas that will benefit them in their adult life: Stock Market, Business, Banking and Credit, Auto Ownership, Employment, Income Tax, and Retirement.

### **Trigonometry**

0.50 Credit Prerequisites: Algebra 2.2

Trigonometry is a higher level math course that incorporates the previous math content learned in Geometry including sine, cosine and tangent functions and right triangular geometry. Students will be able to graph the trigonometric functions, solve right triangles, analyze and apply identities and formulas specific to trigonometric ratios. Students will also be introduced to the Polar Coordinate system and vectors.

### **Pre-Calculus**

0.50 Credit Prerequisites: Algebra 2.2

This course includes the study of: solving systems of equations using matrices, working with conics (ellipses, hyperbolas, and parabolas), parametric equations, sequences and series, the Binomial Theorem, and exponential modeling. It ends with a discussion about limits, continuity, and basic derivatives of functions.

### **AP Calculus A/B**

1.00 Credit Prerequisites: Trigonometry

This course consists of two quarters of work in Calculus with related topics comparable to first semester courses in college and universities. Topics include: limits and continuity, derivatives, integrals, differential equations, and applications of all of these topics in real-world situations. This is a two block course. Students are not eligible to join the second quarter of this class unless they have completed AP Calculus A or a comparable course.

### **AP Calculus Test Prep**

0.50 Credit Prerequisites: AP Calculus A/B

This course is designed to prepare students specifically for the AP Calculus Test they are planning to take in May. It will cover more fully test taking skills and other necessary skills to be successful on the test.

Once students are done taking the test, the class is either used as a study hall or students may be done for the day (Depending on the time that the class is being taken - if during 1-3 hours, students must stay for a study hall. If the class is during 4th hour, students will be dismissed after the test has been taken.)

**This course is considered AP; however, it is an elective credit.**

## **Science**

***A student must complete 3 academic credits (6 classes) of Lab Science in order to meet the MHPHS graduation requirement***

### **Biology 1**

0.50 Credit Prerequisites: None

This class will investigate the history of life on earth. Specifically, this class will focus on the origin of life on earth, the evolution of life forms and how these systems and life forms are interrelated. Biology 1 will also cover basic ecology – how organisms interact with one another. The Biology curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Biology 2**

0.50 Credit Prerequisites: None

This class will investigate the basic structure of life and the flywheel of evolution: genetics. Students will explore the genetic basis for heredity and inheritance, as well as how cells, which protect genes, are able to function and reproduce. The Biology curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Chemistry 1**

0.50 Credit Prerequisites: Biology 2

The central theme of this course is scientific investigation through hands-on laboratory experimentation and the use of conceptual models. A knowledge base will be acquired through units on: Measurements in Chemistry, Composition of Matter, Atomic Structure, Atomic Theory, Periodic Table of Elements, Chemical Bonds, and Stoichiometry and Gases. The Chemistry curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Chemistry 2**

0.50 Credit Prerequisites: Chemistry 1

The central theme of this course is scientific investigation through hands-on laboratory experimentation and the use of conceptual models. A knowledge base will be acquired through units on: Gases, Solutions, Kinetics, Equilibrium, Acid/Base Chemistry, Thermodynamics, and Electrochemistry. The Chemistry curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Human Anatomy**

0.50 Credit Prerequisites: Biology 1&2

Human Anatomy teaches students about the basic underlying structure of the human body. Students will learn about the skeletal, muscular, and nervous systems through lecture, labs, and in-class group work. The Human Anatomy curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Human Physiology**

0.50 Credit Prerequisites: Biology 1&2

Human Physiology teaches students about the basic underlying structure of the human body. Students will learn about the cardiovascular, digestive, renal, respiratory and reproductive systems through lecture, labs, and in-class group work. The Human Physiology curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Agricultural Science 1**

0.50 Credit Prerequisite: Biology 2

This course is an introductory course designed to expose students to various segments of the agriculture industry. Students will gain knowledge in the history of agriculture, soil, plants, pests, floriculture, nursery production landscaping, fruit and nut production, crops, forest science. Instruction and student learning will occur through lectures, student projects, group discussions, and related videos. The basic of FFA will also be introduced in this class, but students will not be in FFA.

### **Agricultural Science 2**

0.50 Credit Prerequisite: Agricultural Science 1

This course is an introductory course designed to expose students to various segments of the agriculture industry and is a continuation of Agricultural Science 1. Students will gain knowledge in the protecting the environment, organic agriculture, livestock, dairy, and the poultry industries, aquaculture, companion animals, preserving our food supply, biofuels and biotechnology, careers in agricultural science. Instruction and student learning will occur through lectures, student projects, group discussions, and related videos. The basic of FFA will also be introduced in this class, but students will not be in FFA.

### **Physics 1**

0.50 Credit Prerequisites: Biology 1 & 2, Algebra 2.1, or Instructor Approval

The central theme of this course is scientific investigation through hands-on laboratory experimentation and the use of conceptual models. A knowledge base will be acquired through units on: Scalars and Vectors, one- dimensional and two-dimensional motion, Newton's Laws of Motion, Momentum & Impulse, Energy and Work, Thermodynamics, and General & Specific Relativity. The Physics curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Physics 2**

0.50 Credit Prerequisites: Biology 1 & 2, Algebra 2.1, or Instructor Approval

The central theme of this course is scientific investigation through hands-on laboratory experimentation and the use of conceptual models. A knowledge base will be acquired through units on: Waves, Sound and Light, Electrostatics, Magnetism, and Nuclear Physics. The Physics curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission.

### **Conceptual Science**

0.5 Credit Prerequisites: None

The central theme of this course is scientific investigation through hands-on laboratory experimentation and the use of conceptual models. A knowledge base will be acquired through units on: Measurement in Chemistry, Composition of Matter, Atomic Structure, Atomic Theory, Periodic Table of Elements, and Chemical Bonding. The Chemistry curriculum is aligned with the Arizona State Standards and this course is approved as a laboratory course for university admission

## **Social Studies**

***A student must complete 3 academic credits (6 classes) of Social Studies in order to meet the MHPHS graduation requirement.***

### **World History 1**

0.50 Credit Prerequisite: None

This course covers world history and geography from early civilization to the Renaissance. Students are required to read literary works and other primary source materials that relate to the course. Strong writing and research skills are necessary to be successful in this class. Critical thinking and problem solving will be encouraged, along with individual and group multi-skill projects in this challenging course. The integration of all forms of technology will be encouraged.

### **World History 2**

0.50 Credit Prerequisite: None

This course covers world history and geography from the Renaissance to the Modern Age. Students are required to read literary works and other primary source materials that relate to the course. Strong writing and research skills are necessary to be successful in this class. Critical thinking and problem solving will be encouraged, along with individual and group multi-skill projects in this challenging course. The integration of all forms of technology will be encouraged.

### **US/Arizona History 1 & 2**

0.50 Credit each      Prerequisite: World History 2

The course will cover American history from the founding of the United States to the present. Special emphasis will be placed on the 20th century era, and specifically from The Great Depression to the present. Students will study U.S. foreign policy, and the many political and social movements that shaped American culture. Problem solving, critical thinking, writing, research, geographic skills, cooperative learning activities, and the integration of technology are encouraged.

### **United States Government**

0.50 Credit      Prerequisites: US/Arizona History 2

This course examines American government through a comprehensive study of the US Constitution, the Legislature, the Executive, and the Judiciary branches. Emphasis will focus on the comparison of each subject matter to other forms of government and the relationship of each subject matter to real world applications and current political events.

### **Economics**

0.50 Credit      Prerequisites: US/Arizona History 2

This course examines American economics with an emphasis on micro- and macro-economic issues. The course will study economic principles and systems, supply and demand, price and competition, business organizations, money and banking, and finance. The course will prepare students for college economic courses.

### **Youth Entrepreneurs 1 & 2**

1.00 Credit      Prerequisites:

Youth Entrepreneurs is an academic course designed to introduce students to the study of the markets and creating value. The focus of the course will be on identifying the relationships of cause and effect in economies.

### **AP World History 1 & 2**

1.00 Credit      Prerequisites: Teacher Assessment and Admin Approval

AP World History is a rigorous, college-level course designed to explore human history from 8000 B.C.E. to the present. This course emphasizes the development of analytical and writing skills necessary for success at the collegiate level. To this end, the course devotes considerable time to the critical evaluation of primary and secondary sources, analysis of historiography (The principles, theories, or methodology of scholarly historical research and presentation) and inquiry into global connections that have shaped our present world. A special emphasis will be given to preparation for the National AP Exam, including historical writing through essay and document-based questions (DBQ) as well as objective evaluations. All students will be encouraged to take the College Board's examination for this subject. Success on this exam will grant the student credit or advanced placement at many colleges and universities. This is a two block course. Students are not eligible to join the second quarter of this class unless they have completed AP World History 1 or a comparable course.

### **AP US History 1 & 2**

1.00 Credit      Prerequisites: World History 2

The AP United States History course surveys the history of the United States of America from the time period commonly referred to by historians as the Pre-Columbian Era to the present day. The AP United States History course challenges students with a rigorous set of curricular expectations that mirror typical college full-year introductory US history courses. Curricular expectations are aligned to the assessment

model of the AP U.S. History Exam. Thus, the heavy emphasis placed on the mastery of the wide breadth of historical knowledge and the analytical skills necessary to think critically within the discipline prepares the students for the opportunity of passing the exam to earn possible college credit. All students will be encouraged to take the College Board's examination for this subject. Success on this exam will grant the student credit or advanced placement at many colleges and universities. This two block course. Students are not eligible to join the second quarter of this class unless they have completed AP US History 1 or a comparable course.

### **AP US Government**

1.00 Credit Prerequisites: AP US History 1 & 2

This course is designed to provide students with a basic knowledge of the purpose, structure, and operation of the national and state governmental systems. The primary content of study is the Federal system and its underlying principles as they are related on National, State, and local levels. This course is designed to be rigorous and challenging for students. Good reading, writing, critical thinking and listening skills are essential for success in this class. In additions good organizational skills will foster student success in this class. U.S. Government is a requirement for graduation at Mission Heights. Students will utilize technology and other outside sources in order to maximize their knowledge of the course content.

### **AP History Test Prep**

0.50 Credit Prerequisites: AP US Hist 1&2/AP Gov; AP World History

This course is designed to prepare students specifically for the AP History or Government Test they are planning to take in May. It will cover more fully test taking skills, vocabulary, multiple choice practice, writing practice and other necessary skills to be successful on the test. Once students are done taking the test, the class is either used as a study hall or students may be done for the day (Depending on the time that the class is being taken - if during 1-3 hours, students must stay for a study hall. If the class is during 4th hour, students will be dismissed after the test has been taken.) **This course is considered AP; however, it is an elective credit.**

## **Physical Education**

***Students have a minimum of 6 credits of general electives in order to me the MHPHS graduation requirement. Physical Education classes help meet that requirement.***

### **Physical Education**

0.50 Credit Prerequisites: None

Students will be offered a variety of physical activities and sport geared to facilitate a healthy and active lifestyle. Students will participate in different team and individual sports as well developing an understanding for various health-related topics. This class is designed to foster a positive attitude towards physical activity.

### **Nutrition/Health**

0.50 Credit Prerequisites: None

Students will develop an understanding of how to live a healthy and active lifestyle as well as develop exciting ways to promote exercise, nutrition, and mental health. Students will also learn about various forms cancers and diseases and find various ways to protect themselves and others from those health issues.



### **Team Sports**

0.50 Credit Prerequisites: None

Students will be offered a variety of physical activities and sport geared to facilitate a healthy and active lifestyle. Students will participate in different team and individual sports as well developing an understanding for various health-related topics. This class is designed to foster a positive attitude towards physical activity.

## **AVID**

*AVID (Advancement via Individual Determination) is offered as an elective course that prepares students for entrance into four-year colleges. There is an emphasis on analytical writing, preparation for college entrance and placement exams, study skills and test taking, note-taking, and research.*

### **Phantom 101**

0.50 Credit Prerequisites: Incoming Freshmen and Transfer Students

Phantom 101 is a required course for students new to Mission Heights. It is an introduction to the AVID system, which is used school wide. Students will be introduced to many skills, which will allow them to be successful in high school and beyond.

### **AVID 9-12**

0.50 Credit Prerequisites: Phantom 101, Student Selection Process

AVID is an elementary through postsecondary college readiness system that is designed to increase school-wide learning and performance. The AVID system accelerates student learning, uses research based methods of effective instruction, provides meaningful and motivational professional development, and acts as a catalyst for systemic reform and change. AVID targets students who are considering college but do not possess the tools to meet those college goals. AVID meets five periods per week. Students receive two periods of instruction per week in college entry skills, two periods per week in tutor-led study groups, and one period per week in motivational activities and academic survival skills. In AVID, students participate in activities that incorporate strategies focused on writing, inquiry, collaboration, and reading to support their academic growth.

## **College Preparation Seminar Courses**

**Students have a minimum of a 1.0 credit (2 classes) of college preparation seminar courses in order to meet the MHPHS graduation requirement.**

### **Public Speaking**

0.50 Credit Prerequisites: Must be a Junior (unless allowed by an administrator)

Students will learn to identify the situation, purpose, and audience of a speech in order to determine the proper method for speech delivery. Students will be guided through speech preparation, delivery, and evaluation. They will incorporate research and visual aids within their speeches. They will learn to deliver informational, persuasive, impromptu, and special occasion speeches both individually and cooperatively.

### **College Preparations**

0.50 Credit Prerequisites: Must be a Junior (unless allowed by an administrator)

College prep is a class that covers all aspects of the college application process. Students will be covering deadlines, applications, resumes, portfolios, scholarships and tuition, and ways to stand out during the college process.

## **General Electives**

***Students have a minimum of 6 credits of general electives in order to meet the MHPHS graduation requirement.***

### **Yearbook 1 & 2**

0.50 Credit (each) Prerequisites: None

Students in this course are responsible for the design and publication of the High School Yearbook. Students should have a background or interest in one of the following areas: photography, desktop publishing, art/design or written language. Those enrolled must research the need and the market for this product. They must design a new or improved product that meets the need and review the success of this product. Students must produce quality work, work together in groups, must be able to handle deadline pressure and should expect to spend additional time outside of the class working on the publication.

### **Competitive Gaming 1& 2**

0.50 Credit (each) Prerequisites: None

In Competitive Gaming, students learn about the competitive world of E-Sports and receive coaching on the most popular e-sport, League of Legends. Students will develop their game mechanics, study game concepts, develop their spatial awareness and work on improving their attitude during a game. Students who excel at the game will have chance to join the MHP league of legends team.

### **Film Literacy**

0.50 Credit Prerequisites: None

Films are one of the most powerful storytelling devices. Movies express ideas, create emotions, give purpose and direction and shape values. Therefore movies have a tremendous influence on our attitudes and perceptions of the world around us. However, for them to accomplish this, the viewer must have the tools to understand, analyze, interpret and discuss what they are experiencing, which is the purpose of this class. This is not a film history course. This is a film literacy course. We will watch many films, with a focus on a variety of genres, rather than a chronological look through history. This course will provide students a chance to analyze film as a visual art form, immersing them into films from some of American cinema's best filmmakers and most popular genres. Students will be able to identify and analyze aspects of film such as: mise-en-scene, musical score, dialogue, montage, color, sound, editing, cinematography, plot, and more.

### **Intro to Philosophy**

0.50 Credit Prerequisites: None

The purpose of this class is to engage the student in the process of critical thinking, basic logic, and worldview examination, specifically in the philosophical areas of reality (metaphysics), truth (epistemology), and ethics (value theory), in order to gain a foundational appreciation and beauty of our natural world in which we live. This course introduces some current and traditional problems in philosophy (e.g. the nature of reality, the justification of knowledge, the nature of mind, morality, and philosophy of science). Students examine the diverse views and arguments and develop basic philosophy skills including critical reasoning and conceptual analysis.

### **Advanced Philosophy**

0.50 Credit Prerequisites: Intro to Philosophy

The purpose of this class is to engage you in the process and application of thinking, specifically in the philosophical areas of literature, film, and contemporary ethical issues. Concrete prior knowledge on reality (metaphysics), truth (epistemology), and ethics (value theory), is pertinent to understanding the extensive topics that will be discussed. This course introduces some current and advanced problems in philosophy (e.g. dreams and reality, the justification of religion and religious knowledge, ethical realism, personal identity, and appreciation of beauty). Students examine the diverse views and arguments and demonstrate basic philosophy skills including critical reasoning and conceptual analysis.

### **Intro to Politics**

0.50 Credit Prerequisites: none

When students complete the course, they will be able to respectfully debate political issues with informed opinions, form their own political philosophy, vote with confidence, and be able to distinguish real information from propaganda. Students will also study the constitution, political philosophers, ideologies, systems of government and current events.

### **Advanced Politics**

0.50 Credit Prerequisites: Intro to Politics

Advanced politics will feel like a continuation of the intro class but with the main added feature: The Election Game. This game encompasses all of your assignments into running an election campaign as either yourself or another classmate. At the end of the quarter one student is elected as President as declared the winner. Otherwise, this class includes additional lectures and debates regarding relevant political topics.

### **Pop Culture**

0.50 Credit Prerequisites: None

This course is a survey of American popular culture over the last century. It will analyze and evaluate the merit, influence, and implications of our popular culture by identifying the values and historical context that shape our worldviews

### **Psychology**

0.50 Credit Prerequisites: None

Students will be introduced to essential topics in psychology. Students will gain insight into human behavior and the mind as they learn about the history of the field of psychology, as well as theories and issues in areas such as learning, memory, motivation, emotion, sensation, perception, and mental health conditions.

## **CBE Courses**

***Students must get approval from the school leader in order to be enrolled in a CBE course. Students may only take a CBE core class as a third (and final) attempt at the class.***

### **Core Classes**

#### **Us History**

0.50 Credit

U.S. History Since 1877 details the American story from Reconstruction to the present day. Beginning with western expansion, students will analyze the impact of events including the rise of cities and capitalism, the Alaska Purchase, and the Spanish-American War. Students will understand how technological advances including the assembly line and harnessing electricity, as well as the Progressive agenda of societal reform, influenced American prosperity. Students will consider America's rise to a world power during World War I before probing events leading up to World War II, including the Great Depression. Students will examine the momentous war and its consequences, including the Cold War and Korean War and investigate latter 20th century events, including the Reagan era and the Persian Gulf War. The course concludes with a look at recent events, including the War on Terrorism

#### **World History**

0.50 Credit

World History is a survey of the development of civilizations from prehistoric times to the present. The journey begins with ancient civilizations including Mesopotamia, Egypt, and China, and the foundations of western civilization: ancient Greece and Rome. Students will analyze developments in Africa, Asia, and Europe during the Middle Ages, including the Crusades. Students will understand how the Renaissance and Reformation provided a springboard for the Age of Reason and the Scientific Revolution. An inquiry into events such as the American War of Independence and French Revolution will prepare students to consider the great advances and social upheaval sparked by the Industrial Revolution. Students will probe the causes, events, and consequences of the two world wars and the rise and fall of Communism. The course concludes with a look at developments shaping current events.

#### **US Government**

0.50 Credit

U.S. Government commences its examination of American democracy with a general overview of the purpose, types, origin, and formation of governments. Students will explore how colonial self-rule, English law, and weaknesses in the Articles of Confederation influenced the formation of the U.S. Constitution. Students will investigate the principles of the Constitution and the federal system. The purpose, powers, and relationships among the American institutions of self-government—Congress, Presidency, and the Judiciary—will be examined as well as federal, state, and local governments. Students will become aware of their civic responsibility to vote and participate in the governmental process as they gain an understanding of the functions and organization of political parties, the evolution of the two-party system, and the influence of public opinion and political ideology on government decisions

#### **English 1-4**

0.50 Credit (each)

**English I** launches a four-year journey during which students will confidently master grammar, develop advanced communication skills, and learn to analyze and appreciate challenging literature. The course begins with grammar fundamentals including sentence structure, parts of speech, and phrases and clauses. Students' vocabulary will expand through a study of technology, literary terms, and words with multiple meanings. Culturally diverse texts will emphasize literary elements and techniques while an overview of short and long prose will delve into excerpts from *The Odyssey*. Reading *Animal Farm* and

Romeo and Juliet will expand the students' literary world. Writing skills will advance as students learn and apply the steps for creating a research paper. The course includes coverage of effective speaking and listening.

**English II** begins with a major focus on grammar to help students become stronger writers. Students then analyze literary genre elements in various excerpts of classical stories. A major focus is the Greek drama, *Antigone*, by Sophocles. The novel, *To Kill a Mockingbird*, by Harper Lee is required with this course to study for analysis, as well. Students compare informational texts and have various writing projects. For example, they write an analytical essay on a short story and a persuasive essay that they also present as a speech. Their research paper is about a topic they choose on the Civil Rights Movement in which they construct a multimedia presentation to accompany it. Additionally, this course includes work-related documents with students constructing their own resumés and letters.

**English III**, students focus on the development of American Literature and compare it with ideas and forms of literature around the world. Students review the basics of the language arts, then scaffold with practices of increasing complexity to meet the required grade-level objectives of analytical thinking. Engaging in a step-by-step process, students learn to write complex analyses and argumentative papers. Students also learn principles in research, teamwork, discussion, and presentation skills. The text that should accompany the course is the musical, *Fiddler on the Roof*, by Joseph Stein. This play highlights literary devices as well as the ideas of immigration and cultural assimilation with supporting literature. Additionally, students explore college and career planning as well as tips for dealing with information in technology today.

**English IV** emphasizes the interpretation of various types of literature from different time periods. The genres covered include fiction, drama, and poetry. The dramatic play *Cyrano de Bergerac* is read and studied for its use of language to convey dilemmas and themes. Poetry studies include a survey of British poetry as well as ancient and modern poetry from various cultures and in various periods. Students are also given a wide range of writing assignments. For example, students produce a fiction story and a script. They also write essays evaluating literary elements. The course also includes research and writing arguments with logic. These various writing assignments help prepare students for end-of-course and SAT essay writing. Coverage is also given to analyzing and evaluating media and speeches, as well as using presentation and discussion skills.

### **Algebra 1, Geometry, Algebra 2**

0.50 Credit (each)

**Algebra I** Algebra I is a common starting point for high school math studies. A review of fundamental math skills in unit 1 will ensure students are ready for algebraic concepts. Students' math competence will grow as they learn to solve expressions, functions, and equations by using formulas, ratios, proportions, percentages, and rates. Other concepts include exponents and scientific notation, polynomials and trinomials, multi-step inequalities, slope formulas, and systems of equations and inequalities. Students will solve quadratic functions through various methods including graphing, factoring, square roots, completing the square, and the quadratic equation. Using tables and graphs, students will analyze and organize data and statistics. Students will learn to work and solve exponential, radical, and rational functions and equations. The final unit ties algebraic concepts to the study of geometry.

**Geometry** This course, dealing primarily with two-dimensional Euclidean geometry and solid geometry, promotes the development of logical reasoning skills and is useful in many life situations. Beginning with the fundamental concepts of line segments and angles, students will progress to conditional statements, geometric and algebraic proofs, and line relationships. In studying polygons, students will learn the properties of triangles, quadrilaterals, and circles along with geometrical concepts including the Pythagorean Theorem and the relationship of pi ( $\pi$ ) to circumference and area in a circle. In the study of solid geometry, students will learn how to determine area and volume for prisms, cylinders, pyramids, cones, and spheres. Students will apply learned geometric skills in working with ratios, similarities, transformations, and symmetry before concluding the course with an inquiry into the fundamentals of trigonometry.

**Algebra II** will consolidate and build on students' knowledge acquired in Algebra I. After a review of Algebra I concepts, students will take an in-depth look at linear equations, inequalities, and functions. Students will be introduced to matrices, apply Cramer's Rule in solving linear systems, and solve graphs and equations of conic sections. Using graphs, factoring, and the quadratic formula, students will solve quadratic equations, inequalities, and functions. Students will investigate how to graph, factor, invert, and solve polynomials, as well as solve rational expressions, radical expressions, fractional exponents, and rational inequalities. Students will examine the properties, transformations, and applications of exponential and logarithmic functions. Applying probability and data analysis, students will determine probability and model data. The final unit will present trigonometric concepts to prepare students advancing to trigonometry

### **Pre-Calculus**

0.50 Credit

Precalculus explores a wide variety of mathematical concepts with the goal of preparing students for calculus or other college-level math courses. A review of number properties, factoring, the quadratic formula, and the Cartesian coordinate system will prepare students for advanced math concepts. Students will use graphing calculators to plot graphs, and solve equations. Students will learn to solve a variety of problems including parent functions, transformations, even and odd functions, domain and range, operations, linear functions, regression, correlation, quadratic functions, polynomials, asymptotes, and exponential, logistic, and logarithmic functions. Trigonometric studies include angle measurement, arc length, functions, reciprocal and quotient identities, Pythagorean identities, sines, and cosines. Sequences and series precede inquiries into the characteristics and applications of conic sections and vectors. The course concludes with an investigation into parametric equations and polar equations.

### **Biology**

0.50 Credit

In Biology, students will develop an appreciation for the living world. A brief history of biology followed by an investigation of the basic unit of life—the cell—will prepare students for deeper research. Students will explore topics concerning genetics, including meiosis, heredity, and DNA. Students will consider natural selection, origin of life theories, and the mechanics of evolution. An exploration of “little critters” such as bacteria precedes a study of plant structures, processes, and reproduction. Students will inquire into animal behavior and characteristics as they study invertebrates, amphibians, reptiles, birds, and mammals, among others. An inspection of nutrition and disease will lead students to examine human body systems. The course will conclude with an analysis of the interdependence of living things in ecosystems.

### **Chemistry**

0.50 Credit

A foundational branch of physical science, the principles and laws of chemistry find many applications in business, technology, health care, and other fields outside traditional scientific areas. Beginning with a look at measurements, calculations, data analysis, and the scientific method, students will investigate the properties of elements, compounds, and mixtures. A survey of the history of theories of atomic structure will lead students to MendeléeV's periodic table and an inspection of periodic law. Next, students will apply atomic theory in the study of molecular and chemical bonding interactions through chemical formulas, reactions, and stoichiometry. Students' knowledge will expand as they learn about the states of matter, gas laws, solutions, acids and bases, thermochemistry and reaction kinetics, and oxidation reduction reactions. The course concludes with inquiries into organic chemistry, biochemistry, and nuclear chemistry. Throughout the course, there are lab investigations, including video labs, to reinforce science concepts and skills

## **Physics**

0.50 Credit

In this course, students will learn physics concepts, including matter and energy, motion and force, speed, velocity, and acceleration in order to better understand how the universe behaves. A survey of the historical development of physics as a foundational branch of science will lead to recognition of the contributions of Newton, Einstein, Planck, and others. Students will apply physics concepts as they study gravity and acceleration, momentum, motion, and energy. The concepts of work and power will become evident as students learn how machines use torque and force to accomplish work. Students will recognize the roles of each fundamental force and will investigate electrostatics, thermodynamics, wave forms, particles, and quantum physics. Following an examination of the nucleus, radioactivity, fission, and fusion, the course concludes with the theories of special and general relativity. Throughout the course, there are lab investigations, including video labs, to reinforce science concepts and skills

## **Environmental Systems**

0.50 Credit

In Environmental Systems, students will learn about different Earth systems, how they interact with each other, and how humans impact these systems. Students will look at the scientific basis for land, water, atmosphere, and biosphere systems; discuss several environmental problems; analyze possible solutions; delve into laws already in existence; and discuss any future laws. Critical thinking will be required, as well as the ability to argue points from both sides of an issue. Throughout the course, there are lab investigations, including video labs, to reinforce science concepts and skills

## **Psychology**

0.50 Credit

The Psychology course begins with a look at basic social science skills including ethical decision-making and statistical evaluation. After a brief survey of careers in psychology, the student will explore the physical processes of the brain and body systems that shape sense and perception. The student will then study theories of development, personality, and conditioning. Next, students will explore mental processes behind thinking and memory, language acquisition, motivation, and emotions. Students will investigate the levels of consciousness and disorders leading to abnormal behavior. The course concludes with an examination of the individual and social behavior. Students will learn about stress, attitude formation, conflict resolution, conformity and obedience, altruism, and morality.

## ***Elective Classes***

### **Animation**

0.50 Credit

Are you inherently creative? Do you have an eye for drawing, technology, and timing? If so, Animation is the course for you! As animation creates movement in a two-dimensional artistic space, in this course you will learn the necessary skills to do just that. You will learn how to use animation tools to conceptualize and bring your animation dreams to life. By using various software and design programs, you'll have the power to transform your creative ideas into reality as you design, define, and complete a variety of digital design projects, including creating your own website! Learning about Animation could lead to a thriving career in the growing world of technology and animation.

### **Criminology**

0.50 Credit

Understanding the criminal mind is not easy. Why do certain people commit horrible acts? Can we ever begin to understand their reasoning and motivation? Perhaps. In *Criminology: Inside the Criminal Mind*, you will be given the rare opportunity to climb inside the mind of a criminal and examine the ideas and motivations at work. The mental state of a criminal can be affected by many different aspects of life—psychological, biological, sociological—all of which have differing perspectives and influences. You will investigate not only how these variables affect the criminal mind but also how the criminal justice system remains committed to upholding the law through diligence and an uncompromising process.

### **Intro to Culinary Arts**

0.50 Credit

Food, glorious food! It both nourishes and satisfies us, and it brings people together through preparation, enjoyment, and celebration. If you've ever wanted to learn more about cuisine and how your creativity and appreciation can be expressed by preparing food, *Introduction to Culinary Arts* is perfect for you. Learn the fundamentals of a working kitchen, and explore what it takes to develop real talent as a chef. Enhance your knowledge of the endless varieties of food, and discover the possibilities that many spices can bring. Learning more about food preparation will certainly make everything you prepare taste better while giving you the ability to bring people together through the joy of eating.

### **Creative Writing**

0.50 Credit

For many hundreds of years, literature has been one of the most important human art forms. It allows us to give voice to our emotions, create imaginary worlds, express ideas, and escape the confines of material reality. Through creative writing, we can come to better understand ourselves and our world. This course can provide you with a solid grounding in the writing process, from finding inspiration to build a basic story. Then, when you are ready to go beyond the basics, learn more complicated literary techniques to create strange hybrid forms of poetry and prose. By the end of this course, you can better discover your creative thoughts and turn those ideas into fully realized pieces of creative writing.

### **Music Appreciation**

0.50 Credit

This course is designed to help the non-musician understand music basics, including such topics as reading a musical score, melody and harmony, rhythm, music history (styles by period), music theory, musical genres, instruments, orchestration, and arrangement. The course even covers the creation of musical scores using popular music arrangement software. Other topics include the science of musical sound, health and wellness for performers, classical symphony concerts, besides opera performances and etiquette when attending. The course strives to help non-musicians gain an understanding of the world of music and to become well-rounded individuals.

### **Personal and Family Finance**

0.50 Credit

We all know money is important in life. But how important? In fact, the financial decisions you make today may have a lasting effect on your future. Rather than feeling anxious about money, feel empowered by learning how to make smart decisions! *Personal and Family Finance* will begin the conversation around how to spend and save your money wisely, investing in safe opportunities and the days ahead. Learning key financial concepts around taxes, credit, and money management will provide both understanding and confidence as you begin to navigate your own route to future security. Discover how education, career



choices, and financial planning can lead you in the right direction to making your life simpler, steadier, and more enjoyable.

### **Personal Fitness**

0.50 Credit

What does being fit really mean? Is it just based on physical appearance or is it something deeper? Though we strive to be healthy and make sensible choices, it's difficult to know how to achieve this. It's not only about losing weight or lifting a heavy barbell; in Personal Fitness you will learn about body functions, safety, diet, goals, and strategies for longevity. Human beings, in both body and mind, are complex and highly sensitive organisms that need the right attention to physically excel and feel great. Being fit is about living life to the fullest and making the most of what you have—yourself! Explore the world of healthy living and see how real fitness can be achieved through intention, effort, and just the right amount of knowledge.

### **Forensic Science**

0.50 Credit

Fingerprints. Blood spatters. Gunshot residue. If these things intrigue you rather than scare you, Forensic Science I: Secrets of the Dead may be for you. This course offers you the chance to dive into the riveting job of crime scene analysis. Learn the techniques and practices applied during a crime scene investigation and how clues and data are recorded and preserved. You will better understand how forensic science applies technology to make discoveries and bring criminals to justice as you follow the entire forensic process—from pursuing the evidence trail to taking the findings to trial. By careful examination of the crime scene elements, even the most heinous crimes can be solved.

### **Early Childhood Education**

0.50 Credit

As children, we see the world differently than we do as teenagers and adults. It is a world full of magical creatures and strange, exciting things. But what makes childhood such a wondrous time of learning and exploration? What can caregivers do to encourage this? In Early Childhood Education, you will learn more about understanding the childhood experience. Learn how to create interesting lessons and stimulating learning environments that provide a safe and encouraging experience for children. Discover how to get children excited about learning and, just as importantly, to feel confident about their abilities. Early childhood teachers have the unique opportunity to help build a strong base for their young students' life-long education.

### **Gaming Design**

0.50 Credit

Are you a gamer? Do you enjoy playing video games or coding? Does the idea of creating and designing your own virtual world excite you? If so, this is the course for you! Tap into your creative and technical skills as you learn about the many aspects involved with designing video games. You will learn about video game software and hardware, various gaming platforms, necessary technical skills, troubleshooting and internet safety techniques, and even the history of gaming. And to top it all off, you'll even have the opportunity to create your very own plan for a 2D video game! Turn your hobby into a potential career and go from simply being a player in a virtual world to actually creating one!

## **Gothic Literature**

0.50 Credit

Vampires, ghosts, and werewolves have lived in our collective imagination since the 18th century, and they continue to influence the world of fiction even today. Gothic Literature: Monster Stories focuses on the major themes found in Gothic literature and demonstrates the techniques writers use to produce a thrilling psychological experience for the reader. The themes of terror versus horror, the power of the supernatural, and the struggle between good and evil are just a few of the classic Gothic subjects explored in this course. Are you brave enough to go beyond the fear and find an appreciation for the dark beauty of Gothic stories?

## **Health**

0.50 Credit

Imagine the healthiest people you know . . . what's their secret? While some health traits are genetically determined, the truth is we all have the ability to make positive changes in our physical lives. In Health 1: Life Management Skills, you will learn how to promote better health by decreasing stress and finding a fuller vision of your life. Explore different lifestyle choices that can influence your overall health—from positively interacting with others, to choosing quality health care, to making sensible dietary choices. You will have the opportunity to build your own plan for improvement and learn how to create the type of environment that will ensure your overall health, happiness, and well-being.

## **Philosophy**

0.50 Credit

Go on an exciting adventure covering over 2,500 years of history! Along the way, you'll run into some very strange characters, like the dirty barefoot man who hung out on street corners pestering everyone with questions, or that eccentric fellow who climbed inside a stove to think about whether he existed. Despite their odd behavior, these and other philosophers of the Western world are among the world's most brilliant and influential thinkers and originated the fundamental ideas of Western civilization. Introduction to Philosophy: The Big Picture asks some of the same questions these great thinkers pondered, so by the time you've "closed the book" on this course, you will better understand yourself and the world around you—from atoms to outer space and everything in between.

## **Journalism**

0.50 Credit

Are you always the first one to know what's going on at school or in your town? Maybe your Facebook or Instagram accounts are the reliable place for others to find the latest breaking news? If so, you are just the kind of person every online, print, and broadcast news outlet is searching for, and Journalism: Investigating the Truth is the perfect course for you! Learn how to write a lead that really "grabs" your readers, interview sources effectively, and write engaging news stories. You will explore the history of journalism and see how the modern world of social media can provide an excellent platform for news. Turn your writing, photography, and collaborative skills into an exciting and rewarding journalism career!

## **Nutrition and Science**

0.50 Credit

Have you ever heard the phrase "your body is your temple" and wondered what it means? Keeping our physical body healthy and happy is just one of the many challenges we face, and yet, many of us don't know how to best achieve it. Positive decisions around diet and food preparation are key to this process, and you will find the essential skills needed to pursue a healthy, informed lifestyle in Nutrition and Wellness. Making sure you know how to locate, buy, and prepare fresh delicious food will make you, and

your body, feel amazing. Impressing your friends and family as you nourish them with your knowledge? That feels even better!

### **Sociology**

0.50 Credit

Human beings are complex creatures; however, when they interact and begin to form relationships and societies, things become even more complicated. Are we more likely to act differently in a group than we will when we're alone? How do we learn how to be "human"? Sometimes it can feel as if there are more questions than answers. Sociology I: The Study of Human Relationships seeks to answer these questions and many more as it explores culture, group behavior, and societal institutions and how they affect human behavior. You'll learn how social beliefs form and how this shapes our lives. How does this happen? Join us and find out!

### **Art History**

0.50 Credit

What is art? Art History will help students develop skills to recognize and appreciate the diversity of art. The course begins with prehistoric and ancient art before introducing students to the classical art of the Greeks and Romans. Students will survey medieval art before exploring the glory days of art and architecture, the Renaissance. The use of light and shadow to evoke emotion during the Baroque period will impress students as will the whimsical style of the Rococo period. Students will contrast the Neoclassical return to idealized subjects with the Romantic era's imagination. Appreciation of art will grow as students study Impressionist and Post-Impressionist artists such as Monet and Van Gogh. The course concludes with students tracing modern art movements, including expressionism, minimalism, as well as conceptual art and artists, including Rodin, Picasso, Mondrian, and O'Keeffe.

### **World Geography**

0.50 Credit

In World Geography, students will learn the six essentials of geography: spatial terms, places and regions, physical systems, human systems, environment and society, and uses of geography. After a broad survey of Earth's structure, hydrosphere, and climates, the focus of each unit narrows to a particular region of the world. By examining the physical geography of each region, including water resources, climate, vegetation, and natural resources, students will understand the influence of geography on economic activities, human culture, and history. In addition, students will investigate the impact of human activity on the environment, including pollution and development, and consider the implications.

### **Logic 1 & 2**

0.50 Credit (each)

**The Logic I** course will improve the critical thinking skills of students through the study of informal logic. The course will challenge students to evaluate whether humans are rational or emotional beings. The majority of the course explores occurrences of faulty reasoning known as logical fallacies. Students will learn to recognize and expose fallacies when evaluating and critiquing arguments. Fallacies covered include appeal to fear, irrelevant thesis, straw man, false analogy, red herring, and misuse of statistics. Students will apply the study of types, components, and principles of argumentative dialogue in preparing a dialogue of their own. During the course, students will consider and analyze Aesop's Fables and "The Cave" by Plato. The course concludes with a comprehensive review of fallacies and a preview of formal logic.

**Logic II** introduces the student to the world of Aristotelian formal logic. Students will use classical tools, including the Porphyrian tree and Euler's circles to translate arguments into propositions organized within the categorical form. Students will also learn to analyze the validity of arguments using the square of opposition, terminological rules, Venn diagrams, and the Barbara, Celarent, Darii, Ferio mnemonic. The course concludes with an evaluation of presuppositional disputes and a survey of hypothetical syllogisms.

### **Career Prep**

0.50 Credit

In Career Prep, students are given the tools to be successful in future careers. The career clusters and their associated career paths are the focus of the course. Students will learn how to survey the job market, fill out paperwork, and thrive in the workplace. Students will create an electronic portfolio throughout the course. The portfolio includes letters of interest to employers, resumés and cover letters, interview preparation documents, a career plan, as well as other reports. The course is designed for students who are currently working and can leverage real-life experience into their course projects.