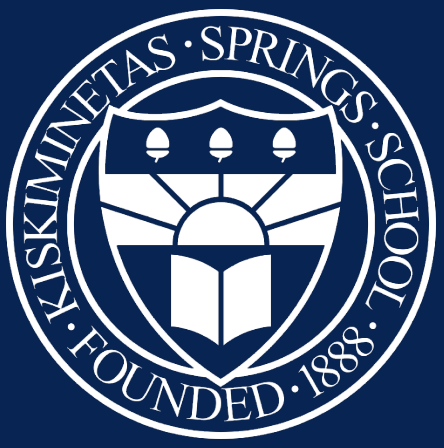
The Kiski School



Course Catalog

2025-2026

"Preparing students to succeed in college and in life"

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ACADEMIC PROGRAM

Kiski has a proud history and we look forward to our 143th year. We have long known the importance of providing engaging and inspiring curricula that challenge students to examine the world around them and to think critically. At Kiski we offer a demanding college preparatory curriculum. This curriculum exposes our students to the broad range of liberal arts and sciences and helps them gain entrance into a four-year college of their choice. Kiski students progress through a well-structured curriculum in math, science, world languages, fine arts, English, and history as well as ancillary programs in life skills that provide them with a solid foundation in health and wellness, ethics and personal development. A wide range of Honors, AP, and Independent Study courses allow students the opportunity to challenge themselves in each academic area. Our Innovation and Technology department sets the stage for Kiski students to be proactive analytical thinkers, creators and problem solvers, curious about the world around them, with the skills to begin to solve today's problems.

Three major features that distinguish Kiski from other schools are our small classes (average class size is 12 students), teachers that are available for extra-help outside of the classroom, and a distinguished faculty that are experts in teaching. Students are encouraged to seek out teachers for enrichment or for remediation if they are experiencing difficulty in a course. Nightly study hall takes place in the dormitory rooms from 8:15-9:45 pm and is mandatory for underclassmen. During this time, students may sign out, with the dorm head's permission, to see a teacher or go to the library.

GRADUATION REQUIREMENTS

ENGLISH	4 Credits
MATH	4 Credits
HISTORY	3 Credits (Including 1 Credit of U.S. History that includes a research paper)
WORLD LANGUAGES	2 credits or through the third level, whichever is more advanced, of the same language. Three or four years of language study are preferable for college admission.*
SCIENCE	3 Lab Science Credits
FINE AND PERFORMING ARTS	2 Credits
ETHICS AND PERSONAL DEVELOPMENT	1 Credit
TOTAL	19 CREDITS

*Students who are native speakers of a language other than English may qualify for an exemption from this requirement, but are encouraged to study a third language.

ACADEMIC HONESTY

We believe that character development is paramount. Our community is based on trust, honesty and integrity and this theme weaves through our residential, academic and extra-curricular programs. While we explore this theme in detail in our Ethics and Personal Development curricula, it is embedded in each class and every activity as students experience the pride of accomplishment and the benefit of life-long learning. Academic honesty is the norm at Kiski and we feel that any form of academic dishonesty devalues the educational process. In a society where information saturates a student's life, Kiski creates an academic atmosphere where individual work and collaboration are recognized and celebrated.

HONOR CODE

All members of the community are expected to live up to high standards of academic and personal behavior. The standards are outlined throughout the K-Book, but most are dictated by common sense. The school's honor code was created to help guide students in making sound decisions.

Students will sign the honor code every fall and will write the Pledge on all graded work. Any student found to have violated the Honor Code may result in a referral to the Honor and Discipline Council.

THE KISKI SCHOOL HONOR CODE

I understand that The Kiski School is an honorable community. As a member of this community, I will not lie. I will not cheat. I will not steal. I will not tolerate those who do.

THE PLEDGE

My name reaffirms my honor.

JOHN A. PIDGEON LIBRARY

The John A. Pidgeon Library is the center of academic life on campus. The facility houses a collection of close to 25,000 books and research materials and features individual and group study areas, instructional space, as well as a large handsomely-appointed reading room with a fireplace. The library subscribes to an authoritative collection of databases, eBooks and research tools. In addition, students have access to materials from 3,000 other libraries across Pennsylvania made available through a statewide consortium. The Library program seeks to ensure that all members of the Kiski community are resourceful, effective, and ethical in using ideas and information to pursue and generate knowledge. Kiski is committed to promoting reading and teaching research and information literacy skills that are integrated across classroom curriculum.

THE KISKI LEARNING CENTER

The Kiski Learning Center supports students by helping them to achieve improved academic success through remediation and enrichment. Academic and executive function skills are taught through direct, individualized instruction and through practical application of content-based materials. Organizational skills are put into practice daily and study methods are practiced with the Learning Specialist to ensure accuracy and maximum productivity. The ultimate goal for a student in The Kiski Learning Center is to acquire the skills necessary to become a confident, successful, independent learner, working to his fullest potential.

KISKI'S INNOVATION LAB: "MAKERSPACE"

In the fall of 2015 Kiski opened its Innovation Lab in Heath Hall. This 1,000 square foot "makerspace" provides tools for real world, experiential learning. Teachers from all disciplines may take their students to the makerspace to work on projects as part of their curriculum. Our "green screen" room allows students to film virtually anywhere in the world using software to insert images, motion graphics and more. The technology and tools in the Innovation Lab include: 3D printer, laser cutter, CNC router, Sprout HP computers, poster printer, band saw, drill press, and a full complement of tools, benches, and brainstorming stations. This space allows students to prototype, make models, solve problems, and create original inventions. Students have used the space to make air powered cars, laser cut originally designed rockets and planes, create luminaries, construct cars, and other hands-on projects. Adobe Illustrator, Autodesk Inventor, and Corel Draw are a few of the graphic design and CAD programs students learn while in the space.

DEPARTMENTS AND COURSE DESCRIPTIONS

ENGLISH DEPARTMENT

The English Department immerses students in the written and spoken word. The goal of developing skills in critical reading and writing is emphasized at each grade level with the study of language (grammar, correct usage, and vocabulary), the writing of compositions, and the reading and study of powerful literature. Honors and Advanced English offerings provide students with rigorous preparation for exemplary coursework in college.

Special emphasis is placed on reading texts that challenge students both academically and philosophically, requiring them to engage with the modern world on a cultural level while preparing them to take control of the stream of information and media that s aturates their lives.

FOUNDATIONS OF LITERATURE

In this course, students are introduced to the major literary genres and the critical language used to study them. Literary elements are introduced and explored through reading short stories and novels in class and in literature circles. The independent reading program affords students an opportunity to explore and discuss these literary skills through weekly journal entries. Poetry is integrated within the context of literature study, culminating in a recitation competition through Poetry Out Loud. Drama is presented through Shakespeare's *Romeo and Juliet.* Grammar and composition are studied both in conjunction with the literature and in specific lessons as needed. Reading selections may include *To Kill a Mockingbird, I Know Why the Caged Bird Sings* , and *All American Boys*.

TRADITIONS IN LITERATURE

In this course students will improve mastery in literature, grammar, and vocabulary. Literature focuses on concepts of leadership and the call to help others through comparative study of folklore and traditions from cultures around the world, including the writings of leaders like Nelson Mandela, Chief Joseph, and Elie Wiesel. Our capstone pieces are *Beowulf* and *Macbeth*. The independent reading program, expanded from Foundations of Literature, affords students an opportunity to explore and discuss literary skills through weekly journal entries.

Student compositions, generally drawn from reading assignments, run from 500- 800 words and include a strong emphasis on creative writing.

Students are expected to develop a more mature writing style and to deepen analytical skills. Grammar topics include a firm grasp of parts of speech and parts of sentences and how they work together to form strong sentences and paragraphs. Vocabulary will be studied and tested in regular intervals, using words that have appeared on standardized tests, such as the SAT.

TRADITIONS IN LITERATURE HONORS

In this course students will build upon the skills developed in Foundations of Literature to develop critical reading, analysis, and writing skills in preparation for Advanced English Language and Composition.

Literature focuses on concepts of leadership and the call to help others through comparative study of folklore and traditions from cultures around the world, including the writings of notable voices like Nelson Mandela, Chief Joseph, and Elie Wiesel. Major reading selections may include *Beowulf, Macbeth, And Then There Were None, Maus* , and *V for Vendetta* . Grammar and composition are studied both in conjunction with the literature and in specific lessons as needed. Student compositions, generally drawn from reading assignments, run from 500- 800 words and include a strong emphasis on creative writing. Students are expected to develop a more mature writing style and to deepen analytical skills.

COMPOSITION AND RHETORIC

In this course students will focus on the art of writing. Through a study of the process of writing, students will learn skills that will aid in every aspect of academic and personal writing. Specific time will be spent with the analytical essay, the college essay, and the personal essay. Individual and peer work will be completed to forge a unique voice and style for each student. Both the content and structure of composition will be studied. A rich spectrum of points of view is presented through model essays including works by Coates, Thoreau, Tan, Bradbury, and Carnegie. Students in the class will increase their knowledge and skills in all areas of composition.

AP ENGLISH LANGUAGE AND COMPOSITION

We are surrounded by written language that is used intentionally to achieve a purpose. In AP English Language and Composition, students read fiction and nonfiction texts through the eyes of a writer, exploring the choices writers and speakers make to persuade their audience. AP English Language and Composition thus serves as an introductory college-level composition course. Students cultivate their understanding of writing and rhetorical arguments through reading, analyzing, and writing texts.

Various rhetorical modes and devices are studied in a wide range of texts including classic speeches and essays such as Martin Luther King Jr.'s, "I Have a Dream" and George Orwell's "Shooting an Elephant." Students will become well versed in analyzing and crafting arguments as well as synthesizing information from multiple texts.

AP ENGLISH LITERATURE AND ANALYSIS

Students in this class continue their study of literature and literary structure with a focus on American literary classics. Themes to be studied include war, the nature of man, and the development of national culture. Bi-weekly writing assignments stress close analytical reading and original and creative thought. Authors commonly read include Atwell, Hawthorne, Vonnegut, Ellison, Bradbury, and Fitzgerald. Students will also be expected to show competency through group projects and oral presentations.

TOPICS IN AMERICAN LITERATURE

During the first semester all seniors will enroll in our Topics in Literature course which will include the study of a variety of literary genres focusing on diverse, powerful writers. The essay, memoir, short story, and poetry will be the foundation for analytical discussion and writing based on the themes, styles, and conflicts in our rich literary history. A special focus will be placed on creating a personal voice for writing in order to help students best communicate in speaking and writing. Assignments will ask students to evaluate and synthesize new information and perspectives. The English Department program culminates with a diverse offering of classes available in the second semester. Students will choose a second semester elective with the guidance of faculty. Past course offerings included Literature of the Vietnam War, Apocalyptic/Post-Apocalyptic Literature, and Elements of Film.

HISTORY DEPARTMENT

The History Department's mission is to provide students the knowledge and tools that will help them create a solid foundation leading to success in college and beyond. Faculty in the department use an understanding of the past and its connection to the present as the vehicle to deliver, practice and perfect those skills. The focus is on the process of history.

The department encourages a modern approach to learning; embracing collaboration, innovation and creative thinking, and use of non-traditional means to "doing" history. Students will be expected to craft sound arguments and defend those arguments with consistent and coherent supporting evidence. Critical reading and writing will be important starting at the ninth grade level with the expectation being that students will continue to perfect their analytical skills throughout the curriculum.

FOUNDATIONS OF WORLD CIVILIZATIONS

This course presents a global survey of ancient civilizations as the basis of the cultural systems and economic structures foundational to the modern world. Beginning with the agricultural revolution the class studies the emergence of early cities and states before considering specific civilizations of Africa, the Americas, Asia and Europe up to 1500. Emphasis is placed on developing reading, writing and research skills while studying challenging texts and questions concerning the ancient world.

MODERN WORLD HISTORY

This course presents a global survey of historical trends from 1500 to the present day. Students begin by developing an understanding of different kinds of societies and empires around the world in 1500. They then consider the Columbian exchange and the multiple consequences it had for societies around the world economically, politically and culturally. Topics addressed include the Renaissance and the Reformation, the emergence of the Atlantic World, the establishment of global trade, the Scientific Revolution, the rise of nationalism, the Industrial Revolution, Imperialism, the development of totalitarian states, the impact of World Wars and genocide, the post war world and the challenges of globalization.

UNITED STATES HISTORY

The U.S. History course surveys the pre-colonial era to the present and acquaints the students with the entire scope of the nation's past. Social, political, economic, and diplomatic themes are stressed through secondary and primary sources. Students are encouraged to see U.S. history as the interpretation of evidence not as a series of facts or events. Students will practice a variety of research, study, and writing skills to master course material. Students are taught to use history as a way to interpret modern happenings and evaluate contemporary events.

AP UNITED STATES HISTORY

This course prepares students for the AP United States History Exam and presents the growth of the American nation from indigenous cultures before the arrival of Columbus to the present day. While the focus of the course is the practice of historical interpretation and communication skills in general, students will learn concepts associated with the rigorous analysis required in a college level history course. Students will need to not only read and write historically but have to collaborate on projects and present information using traditional and non-traditional methods.

AP HUMAN GEOGRAPHY

How do humans live in space? What role does our physical or cultural geography play in the people we become? Immerse yourself in AP Human Geography. From bustling cities to small towns and rural areas, you'll embark on a journey of discovery as you examine the diverse interactions that people have with their physical, cultural and human environment. By investigating population trends, exploring diverse cultural landscapes, and identifying spatial patterns across time and various scales, you will learn to see your community and communities around the world in a different way. Geography is a discipline characterized more by methodology than a discrete body of knowledge. Thus students will practice geographic methods using both primary and secondary data that culminates in analysis that emphasizes independent observation and interpretation from a spatial perspective.

MICROECONOMICS

The purpose of this course series is to give students a basic overview of the economic forces that govern markets. Each course can be taken independent of the other at no disadvantage to the student, and students will have the option of taking the related AP exams at year's end with some additional study. The fall will focus on microeconomics, with issues relevant to individuals and individual firms. Topics will include basic economic concepts, nature of product markets, competition, market failure and government roles. Students will develop an understanding of economic theory and application through readings from established economic publications, as well as activities that allow them to make the same choices that individuals, firms, and countries must make in pursuit of economic prosperity.

MACROECONOMICS

The purpose of this course series is to give students a basic overview of the economic forces that govern markets. Microeconomics is not a prerequisite but recommended. The spring semester will focus on core concepts in macroeconomics including unemployment, inflation, measures of economic performance, price determination, the financial sector, economic growth and international trade and finance. Students will develop an understanding of economic theory and application through readings from established economic publications, as well as activities that allow them to make the same choices that individuals, firms, and countries must make in pursuit of economic prosperity.

GLOBAL LANGUAGES DEPARTMENT

In order to help students acquire an appreciation for their role in a global society, the Department of Global Languages offers challenging classes that demand from students a commitment and energy commensurate with those of its experienced faculty. Programs require students to complete three years of one language in order to develop linguistic maturity and to steadily acquire the multiple, cumulative skills typical of language learning. The learning experience in the classroom is enhanced through the use of authentic materials and technology.

FRENCH I

This course is designed to begin development of proficiency in the French language by concentrating on listening, speaking, reading, and writing skills. Students in French I are introduced to contemporary French-speaking culture while learning the vocabulary of everyday items and activities including family life, hobbies, food, furniture, school life, and eating habits. Students experience life in French-speaking countries through authentic realia and video clips that reinforce the structures and vocabulary they study. A variety of activities in each lesson enable the students to practice their oral and written expression, through dialogues and simple conversations with classmates and the teacher. Similar materials are used to assess students' ability to understand simple text and listening comprehension. Various cultural projects round out this foundation course in Kiski's French curriculum.

FRENCH II

French II begins by reworking and reviewing the core elements of French. From there, the course expands to other tenses which allow the students to express themselves in the past, present, and future.

Students will also investigate in detail the cultural differences between their home and French speaking countries. Students will experience films in French and short forms of French literature throughout the year in order to better prepare them for higher level courses.

FRENCH III

French III is designed as a culminating course for Kiski's three-year Global Languages requirement. Previously studied vocabulary is reviewed, enriched and expanded while new vocabulary is introduced thematically. Grammatical concepts become more intricate, such as the deepened knowledge of past tenses and the subjunctive mood. More time is spent on developing reading and writing skills, however listening, speaking and reading continue to be integral skills. Through technology, online resources and other authentic materials, the language experience is enhanced and students' language skills are advanced. The students are also exposed to the French speaking world. including culinary, musical, historical and artistic contributions of these countries, as well as their cultural attractions.

SPANISH I

This course is designed to begin development of proficiency in the Spanish language by concentrating on listening, speaking, reading, and writing skills. Students in Spanish I are introduced to contemporary and classic Hispanic culture while learning the vocabulary of everyday items and activities including family life, hobbies, food, furniture, school life, and eating habits. Students experience life in Spanish-speaking countries through authentic realia and video clips that reinforce the structures and vocabulary they study. Students learn to express events in the present, future, and past while paying attention to Spanish pronunciation. A variety of activities in each lesson enable the students to practice their oral and written expression, through dialogues and simple conversations with classmates and the teacher. Similar materials are used to assess students' ability to understand simple text and listening comprehension. Various cultural projects round out this foundation course in Kiski's Spanish curriculum.

SPANISH II

Spanish II begins by reworking and reviewing the core elements of Spanish 1 such as fundamental vocabulary and the present tense. From there, the course expands to other tenses which allow the students to express themselves in the past, present, and future. Students will also investigate in detail the cultural differences between their home and Spanish speaking countries. Students will experience films in Spanish and short forms of Spanish literature throughout the year in order to better prepare them for higher level courses.

SPANISH III

Spanish III is designed as the culminating course for Kiski's three-year Global Languages requirement. Previously studied vocabulary is reviewed, enriched and expanded and new vocabulary is introduced thematically. Grammatical concepts become more intricate, such as the deepened knowledge of past tenses and the subjunctive mood. More time is spent on developing reading and writing skills, however listening, speaking and reading continue to be integral skills. Through technology, online resources and other authentic materials, the language experience is enhanced and students' language skills are advanced. The students are also exposed to the cultural wealth of the Spanish-speaking people of the world, including culinary, musical, historical and artistic contributions of these countries, as well as their cultural attractions.

ADVANCED SPANISH

The goal of Advanced Spanish 4 & 5 is to deepen students' understanding of the complex structures of Spanish while expanding their cultural awareness of Latin American and Spanish language and culture through discussion of current social topics and utilization of a wide variety of Spanish language materials. Students at this level seek to acquire a command of the key vocabulary and structures necessary for personal communication within the Spanish-speaking world. Students are also expected to reach an analytical and self-expression stage where they introspectively search for and express their thoughts and feelings on a wide variety of topic

ENGLISH AS A SECOND LANGUAGE
COMPOSITION AND LITERATURE

Students in this class will focus on the skills of reading, speaking, writing, and listening to enhance their academic engagement in all courses. In this class students will work on their listening and speaking through daily exercises. Intensive writing, focusing on sentence and paragraph formation as well as essay writing, is designed to prepare the students for the more complex writing assignments they will encounter beyond ESL, whether at Kiski or at the college level. Writing is supplemented by the study of novels containing complex grammatical structures. The goal is to ease the student's transition into the Kiski curriculum.

MATHEMATICS DEPARTMENT

The mathematics curriculum is designed to instill in each student a wide range of math skills and to provide opportunities for students to use what they have learned through creative projects and problem solving. Recent examples of creative projects within the Mathematics department include explorations into the ballistics of catapults, the study of the probabilities in a multi-level collaboration between Precalculus and Statistics students, and a three-dimensional solid modeling project in Calculus. The Mathematics department incorporates labs, graphing calculators, data analysis and more to immerse the students using the latest mathematical tools. To meet the needs of our students we offer multiple levels of math with increasing levels of difficulty (regular, honors, and advanced). Students are not put in a specific track but are instead given opportunities to follow their own developmental progression.

Advanced courses include Statistics, Calculus AB and Calculus BC. The highest achieving math students have the opportunity to take independent study courses with faculty in Linear Algebra and other college-level math courses as well as Stanford EPGY math courses.

ALGEBRA I

Algebra I provides a strong and essential background for those incoming freshmen who need to master the basic concepts of Algebra. Students are exposed to a rigorous fundamental course in the essential skills of this subject. In this course there is adherence to sound mathematics in the presentation of topics. Introduction to logical reasoning is developed gradually while mechanical skills will continue to be stressed.

This course is integrated with graphing calculators to provide students with a solid background for today's math, and an excellent foundation for all math courses that follow.

GEOMETRIC AND ALGEBRAIC ANALYSIS

Geometric and Algebraic Analysis is a combination of Geometry, and Advanced Algebra. The fundamental concepts of Geometry to be covered will include; Reasoning and Proof, Lines and Angles, Triangle and Quadrilateral Theorems, Similarity, Right Triangle Trigonometry and the study of Circles and Surface Area and Volume. In Algebra students will study the Properties of Exponents and Rational Exponents along with Polynomials, Factoring and Quadratic Functions.

ALGEBRA II

Algebra II intends to build on the concepts and methods from Geometric and Algebraic Analysis and develops a foundation for Precalculus. Student understanding of algebraic concepts is furthered in labs, which connect real-world situations to the material being covered. The proposed course of study enables students to create mathematical models of phenomena used in the real world. Topics include linear and quadratic functions, polynomial functions, rational expressions, exponents, logarithms and introductory trigonometry.

ALGEBRA II HONORS

Algebra II Honors builds on the concepts and methods from Geometric and Algebraic Analysis to develop a foundation for Precalculus. The study of advanced mathematical concepts is aided by the extensive use of technology and hands-on data collection. Emphasis is placed on the development of abstract thinking skills, the function concept, graphs, and the algebraic solution of problems in various content areas. These content areas include quadratics, systems, logarithmic, exponential, and polynomial expressions, equations and inequalities. Rational algebraic equations, sequences and series, and trigonometry are also covered. Focus will be on real-world application of concepts, in an effort to show students the relevance of mathematics to everyday life.

PRECALCULUS

Precalculus reviews and builds on the skills learned in Algebra II. Through the extensive use of technology, graphing, and real world modeling students not only strengthen their algebraic skills, but begin to prepare for the rigors of Calculus. Topics covered include functions, trigonometry, polynomials, exponentials, logarithms, inequalities, systems, and sequences.

AP PRECALCULUS

AP Precalculus prepares students for the AP Precalculus exam. It extends and deepens concepts learned in Algebra II to attain a mastery of the skills necessary to succeed in an introductory level of Calculus. The ongoing theme of the course is using functions as models of change. Functions are grouped into families and then used as models for real-world phenomena. Technology is used to reinforce the connection between the concepts being covered and their real-world applications. Topics covered include: functions, trigonometry, polynomials, exponentials, logarithms, inequalities, systems, matrices, parametric equations, data analysis, and an introduction to differential Calculus. This course is considered to be the prerequisite for Advanced Calculus.

INTRODUCTION TO PROBABILITY

In this one semester course we will be exploring the various methods and techniques for the calculation of probability, with a focus on real world application. Beginning with basic chance calculations, we will move on to exploring conditional probability, determination of multi-stage events, and the evaluation of various outcomes, working through real-world lenses ranging from casino games, to sporting events, to election outcomes.

INTRODUCTION TO STATISTICS

In this one semester course we will be exploring the foundations of statistical analysis. Topics will include appropriate sampling techniques, the means for displaying and discussing data in a meaningful way, and how to analyze that data to reach specific conclusions. Students will discuss real world applications of statistics drawn from both the hard and social sciences.

AP CALCULUS AB

This course prepares students for the AP B exam in Calculus and consists of a full year of work in Calculus comparable to courses in colleges and universities. Technology is used by students to confirm written work, facilitate investigations, and assist in interpreting results. Topics covered include functions and graphs, limits and continuity, derivative formulas, the Mean Value Theorem, related rates of change, anti-derivatives, differential equations, the Fundamental Theorem of Calculus, the trapezoidal rule, areas between curves, volumes of solids of revolution, and techniques of integration.

AP CALCULUS BC

AP Calculus BC prepares students for the AP Calculus exam. It provides mathematically able students with an exposure to a full year of Calculus of a single variable and its applications to real-world situations. The course emphasizes a multi-representational approach to Calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Advanced Calculus BC is an extension of Advanced Calculus AB, rather than an enhancement.

AP STATISTICS

AP Statistics prepares students for the AP exam in statistics. The course is designed to introduce students to the major concepts of data analysis. Students explore the primary methods of collecting, analyzing, and drawing conclusions about a data set. For the first quarter of the year, students are introduced to symbolic logic and an extensive study of the theory of counting and probability. The remainder of the course uses materials and explorations to help the student connect the concepts being taught to their real-world applications.

CODING

Coding is a semester elective intended to give students an introduction to the art of programming. Using an object oriented approach, emphasizing stepwise refinement and top down design, students will be introduced to problem solving methodologies and algorithm development. While the focus language of the course will be Java, other languages including the scripting languages of Python, Perl, and JavaScript may be used. Students interested in the fields of Engineering and Computer Science are encouraged to take this course, however this is not required, coding is for everyone! There are no prerequisites for this course but students who have already taken Computer Applications, Digital Media, Production, or Robotics will be well prepared for coding.

FINANCIAL MATHEMATICS 1

This year-long course aims to prepare the student to be a fiscally responsible adult. The course is split into two semester length sections. The fall semester begins with an understanding of the importance of having financial goals of all time lengths. The course will move into short-term skills for managing one's money, including estimation of a budget, computation of taxes, credit analysis, and a comparison of savings plans. Projects will include reading and analyzing articles from respected publications such as *The Economist* and *Wall Street Journal,* building a short term budget, learning how to complete a basic tax return, and how to plan for a medium term purchase, such as a new vehicle. Additional topics concerning short -term project analysis will be included based on student interest and available time.

FINANCIAL MATHEMATICS 2

In the spring semester, the course will shift focus and discuss long -term investment strategies, primarily those involving stocks, bonds, mutual funds, and building a retirement plan. The year will close out discussing the purchasing of motor vehicles and housing, as well as various types of insurance policies. Projects will include long term budgeting planning for single and married lifestyles, an investment simulation to show students how to manage securities portfolios, and the importance of "slush funds", or savings needed for temporary setbacks (e.g. unemployment) that will arise in life. Additional topics concerning long-term project analysis and risk assessment will be added based on student interest and available time. Text readings will be augmented through practical demonstrations and projects featuring the topics, as well as guest lectures from professionals in the field.

SCIENCE DEPARTMENT

The Science Department is committed to fostering the scientific literacy of all Kiski graduates through the in-depth study of core concepts in Physics, Chemistry, Biology and Environmental Science. The department provides multiple opportunities to develop this literacy through labs, field work, projects, presentations and guest speakers. Students are also carefully supported as they develop the study and organizational skills unique to scientific inquiry. Students can study a combination of Biology, Chemistry, Physics, and Environmental Science. Electives include classes in psychology, coding and robotics. Recent independent studies have pursued physiology, anatomy and artificial intelligence. Honors and AP courses are offered in Environmental Science, Chemistry, Physics. Ninth graders typically take the Foundations of Biology course. Students who join the school after the freshman year will be placed in courses according to their background.

FOUNDATIONS OF BIOLOGY

Biology is a lab-based course that focuses on the characteristics of living things and the dynamics of life on earth. Students study the physiology, heredity, classification, and evolution of living things. They learn how science applies the scientific method as a “way of knowing” about the biological world around them. The laboratories offer students the opportunity to develop skills in observation, data collection and interpretation, predicting, and formulating hypotheses. Students are encouraged to relate classroom topics to their everyday experience in the natural world.

BIOLOGY HONORS

Biology Honors uses an inquiry and research based model to give the students the skills to navigate current biological issues. Students study the physiology, heredity, classification and evolution of living things. Students learn how science applies the scientific method as a “way of knowing” about the biological world around them. The laboratories offer students the opportunity to develop skills in observation, data collection and interpretation, predicting, and formulating hypotheses. As an honors level course greater depth and breadth of material is explored and a higher level of analytical thinking is developed throughout the course.

ADVANCED BIOLOGY

Advanced Biology is designed for students who are dedicated, passionate biology students interested in a college level biology course. Using an Inquiry based curriculum, students will review the molecular and cellular basis of life as well as the principles that guide heredity, evolution, ecology, and anatomy and physiology. Students will study the relationships of organisms and populations as a means of reinforcing the structure, functioning, and diversity of organisms, and the interdependent web of life. Laboratory work helps students to reinforce and refine skills through observation, data collection and interpretation, prediction, the formulation of hypotheses and by designing their own labs.

ENVIRONMENTAL SCIENCE

The Environmental Science course takes advantage of our 350 acres of woodlands overlooking the Kiskiminetas, and Conemaugh rivers. This is an interactive, introductory, laboratory course in which students explore the natural world. Through discussions, laboratories, projects, and traditional classroom instruction, students learn the vocabulary and practices of an environmental scientist as they collect water and soil samples, and examine the role that the human population plays in our ecological world. Once students have mastered the material, they use what they have learned to delve into current real world issues exploring, mineral and resource extraction, water use and water pollution, air pollution and climate change, conventional and sustainable energy supplies.

AP ENVIRONMENTAL SCIENCE

AP Environmental Science prepares students for the AP exam in Environmental Science. Environmental. The course is for students passionate about an analysis of our natural world which occurs at a faster pace and includes a greater depth and breadth of study than our regular environmental science course. Our woodland and river location will be used to develop an understanding of the dynamics of ecosystems as well as current environmental issues, including the management of natural resources, the production and use of energy, waste management systems, and the interdependence of ecosystems. Students develop the scientific and critical analytical skills to examine environmental issues of our times including; water and soil quality, changes in global climate, the erosion/deposition of landforms, and "at risk" species. Throughout the course, students will learn and develop skills in critical thinking, scientific method, technical lab skills, designing original laboratories to answer pertinent questions, oral presentations, and project based learning.

CHEMISTRY

Chemistry is a laboratory-based course exploring the practical and theoretical aspects of the chemical world. Major topics of study include atomic structure, periodic table, bonding, nomenclature, formula writing, chemical reactions and basic stoichiometry.

Laboratories and projects allow students hands-on, real-world experience with the concepts of chemistry. Instead of just imagining how something works, students get to explore concepts through doing. Throughout the year within the class and laboratory, students develop skills in scientific writing, critical thinking, analysis, laboratory techniques and experimentation.

CHEMISTRY HONORS

Chemistry Honors is a course for accomplished math and science students who are seeking to immerse themselves in a fast-paced intensive science course. The basic concepts of matter and energy and how they change and flow through chemical reactions will be explored. More advanced problem-solving techniques will be developed in order to better understand chemical and physical theories from a mathematical point of view. An integrated laboratory component will allow students to gain first-hand information about the nature of chemical reactions both qualitatively and quantitatively as they develop hands-on skills.

AP CHEMISTRY

The AP Chemistry prepares students for the AP Chemistry Exam. This college level chemistry course is designed for students who have a strong background and interest in chemistry. The topics learned in chemistry are now covered in much greater detail emphasizing the mathematical basis for theories and principles. In addition, a comprehensive and flexible laboratory component allows students to hone their skills in proper technique, report writing and problem solving. Many labs are designed by the students to solve specific problems.

PHYSICS

Physics focuses on lab-based scientific inquiry into our physical world. The major concepts of motion, gravity, waves, optics, and electricity and magnetism are explored through the use of inquiry labs designed to challenge the student to develop a model of the physical world. The student then learns to apply this model to solve a variety of problems. These labs provide the student the opportunity to use technology in collecting data and writing lab reports. Whenever possible the modern physics extensions of these concepts will be provided in order to give the student a more contemporary look at the state of physics today.

AP PHYSICS I

AP Physics I prepares students for the AP Physics Exam. This is a class for accomplished math and science students who are prepared for a mathematically rigorous survey of key concepts in physics. We will consider key topics in Mechanics, Waves and Optics, and Electricity. Students will also conduct laboratory work to complement their study of key concepts and to better understand the nature of scientific research. Attention will at times be given to the historical significance of certain key moments in physics (The Newtonian Synthesis, Wave-Particle Duality, Relativity).

AP PSYCHOLOGY

Have you ever wondered why you act a certain way around different people? Or how your family and society influence your behaviors? In AP Psychology, you'll learn the foundational concepts that detail how and why people think and behave the way they do. We will consider the biological basis of behavior, cognition, learning, social psychology, personality and mental health. We will also consider psychological research methods and how psychologists interpret data, evaluate claims, consider evidence and effectively communicate ideas.

SCIENCE ELECTIVES

INTRODUCTORY ROBOTICS

This fall semester class will focus on developing an understanding of the components, circuits, and electronics of Robots. They will also be given written and oral assessments to test their understanding of the underlying theories. Topics covered will include; basic circuitry, LEDs, microprocessors, basic programming, digital encoding, pre-programmed navigation, and stimulus response navigation. A central focus of this course will be preparing a robot for competition. Teams are challenged to design, build, program, and operate a competition robot to achieve a common goal. Students will travel to workshops, scrimmages, and competitions as part of this course.

SCIENCE LITERACY

This course is designed to focus on the public demonstration, communication and validation of scientific knowledge. Students will focus on the core domains of physics, chemistry and biology. They will review scientific literature, develop professional posters and demonstrations and visit scientific conferences to understand the crucial role public debate and peer evaluation play in professional science. Students will be expected to foster scientific literacy through advanced writing and public presentations.

INTRODUCTION TO PSYCHOLOGY

This course is designed to introduce students to the scientific study of behavior and mental processes. Students will explore core psychological concepts such as, biological bases of behavior, motivation, lifespan development, personality, cognition, learning, memory, psychological disorders/treatments, and social/cultural dimensions of behavior.

FINE AND PERFORMING ARTS DEPARTMENT

The goal of the Fine and Performing Arts Department is to create an environment which allows for the development of creative expression and critical awareness. It is important not only to introduce students to the arts, but to also challenge the advanced artist. Incoming freshmen and sophomores are provided the opportunity to take a survey course which samples each of the arts. These courses foster an appreciation for and an interest in the arts which remain with the students as adults.

Upper level courses are offered to support those who are passionate about the arts as well as students who are discovering a new interest. Curricula covering a range of topics are offered as semester-long or year-long classes. Some classes may be offered more than once a year as interest demands. Additionally, with faculty recommendation, students may take specific offerings more than once; which is helpful in preparing their college admissions portfolios.

INTRODUCTION TO THE ARTS

The goal of Introduction to the Arts is to develop students who are familiar with the historical background of the arts, who have gained some hands-on experience in each of the disciplines, and who will use that knowledge and experience to build a life-long respect for and enjoyment of the arts. Freshmen will spend one quarter in each of the disciplines: 2D/3D Design, Visual Art, Music, and Theater.

FRESHMAN FINE ARTS: 2D/3D DESIGN

This course introduces students to principles of design and elements of art. Students will use this language as a tool for visual analysis and intelligent decision making in their own work. Students will explore a variety of media, both 2D and 3D. Students will be given an introduction to Adobe Photoshop, Adobe Illustrator, and Autodesk.

FRESHMAN FINE ARTS: VISUAL ARTS

This introductory art class is designed to give students a broad exposure to the visual arts. Both art history and studio projects are incorporated into this class. Students explore a variety of art media and both two and three dimensional art forms. The student is challenged with frequent self-examination of completed art works that mark his progress in the class, fostering a sense of accomplishment. In-class projects, weekly sketch assignments, quizzes and periodic research are evaluated for the course grade. We encourage students who enjoy the Visual Arts class to consider taking a Studio Art class at some point in their Kiski career.

FRESHMAN FINE ARTS: MUSIC

This is an entry level music appreciation course that puts emphasis on how music fits into a well-rounded education. Students will learn and experience how music relates to Math & Science, History & Politics, Physical Education, and Language & Communication.

Some of the topics covered in Freshmen Music include the physics of sound, an overview of music through the ages, and music's social influence. The instructor will provide listening assignments, hands-on projects, and analysis of in-class pieces. Additionally, each class will rehearse and perform a piece for 'A Night of Music', The Kiski School's music assembly.

FRESHMAN FINE ARTS: THEATER

The theater course is designed to introduce the student to all aspects of producing a play. Some time is spent developing a working vocabulary and an overview of the history of theater.

The bulk of the course is hands -on, beginning with rudimentary exercises in pantomime and building to dramatic readings, memorized monologues, and scenes taken from plays. The culmination of the class is the performance of a short play that is written by the students themselves. Throughout the course, lessons are reinforced through the use of various theater exercises. Assessment is based on each student's in-class performance, as well as written tests and projects.

STUDIO ART

Studio Art classes provide its students with exposure to a wide range of media and ways to use their creativity. Students will explore ceramics, painting, woodworking, paper craft, architectural model making, and more. Working on basic skills such as drawing and sculpting are achieved through fun and engaging projects that challenge students. Throughout the term, students will work individually and in teams to come up with creative solutions to the assignments. The goal is to assist students in finding their creative voice and developing their skills in art. The course may be repeated.

DRAWING AND PAINTING

Students explore a variety of materials and techniques as they learn to draw and paint. The course focuses on basic principles of drawing and design. Drawing from life is an important component in teaching students how to translate what they see to a two-dimensional surface. Projects are evaluated with regard to their creativity and formal qualities. Each student keeps a sketchbook for weekly assignments. Students are challenged with both frequent self-examination and class critique of completed art works that mark progress in the class, fostering a sense of accomplishment and an understanding of the critique process. This is a strong portfolio-building class for those interested in applying to a university that requires an art portfolio. The course may be repeated.

ARCHITECTURAL DESIGN AND MODEL MAKING

In this course, students explore the history of Design and Architecture. Students will use this knowledge to design buildings and objects using a CAD program, as well as, hand drawings and drafting. The students then take on the challenges of building mode ls and prototypes of their designs. The class develops skills in the woodshop as well as the computer. Emphasis is placed on creative thinking and problem solving.

The course prepares students to participate in several competitions with their designs and models. It provides students interested in areas like Design, Architecture and Engineering with a taste of what these fields offer as well as projects to add to thei r portfolio when applying to colleges.

INDUSTRIAL DESIGN

This semester class explores the areas of woodworking, ceramics, architectural design and model-making. Students are introduced to furniture design and woodworking with an emphasis on process and design. The course investigates flight through rockets and radio controlled airplanes. Boatbuilding is used to teach the design processes well as hand tool skills. Students are exposed to mechanical skills designing and building a motorized bicycle. The goal is to acquire a practical knowledge of the use of tools, construction techniques and design skills.

INDUSTRIAL ARTS AND CRAFTS

Lasting one semester, Kiski's Industrial arts and crafts course explores primitive craft skills such as woodworking (Using the pole lathe and draw horse to create furniture and utilitarian objects), wood fired pottery, rope work and knot tying. It also teaches survival skills related to making objects such as a bow to make fire, making cordage, and designing and creating a shelter. The culminating experience is to take these skills out into the surrounding environment and use them to live with nature. The course reinforces skills learned in other areas of studio art and industrial arts, as well as Woodshop and Outdoor Club. It strives to place these skills into more of a wilderness or primitive setting. The course creates useful objects, practices wilderness skills, and instills conservation and stewardship for the environment.

AP 2-D OR 3-D ART AND DESIGN

In AP Art and Design students will develop a portfolio to submit for the AP exam. Faculty will guide students through core skills such as Inquiry and investigation, making through practice, experimentation, revision, communication and reflection. Students have the opportunity to do work in either 2-D or 3-D. The portfolio may include multiple pieces of art in different disciplines including painting, drawing, graphic design, photography, collage, printmaking, illustration, industrial design, or ceramics.

THEATER

THEATER: EMBODYING A CHARACTER

More goes into playing a character than just reading lines. This class will explore a variety of techniques and exercises to help students embody the characters they choose to portray on stage or screen. Character development activities will include the following: analyzing scripts, establishing character motivation and goals, creating a backstory, exploring emotional expression and connections, practicing physicality and body language, developing voice and speech patterns, interacting with other actors, improvising scenes and roles, analyzing multiple portrayals of a character or role, and comparing character prep for stage, screen, or audio

formats. Students will also learn about costume design and makeup/special effects techniques. All of these will bolster skills as actors, costume and makeup technicians, and stage managers. Students will have opportunities to demonstrate their work in several venues: the semester's Kiski Players' production, Evening with the Arts/Holiday Program, and prepared monologues for performance at Morning Meetings or online.

THEATER: BACKSTAGE PASS

This class will allow students an opportunity to peek behind the curtain and see what goes on backstage in preparation for a theatrical production. This exploration of technical theater includes script analysis; set design and dressing; set construction; properties organization, modification, and creation; light and sound design; and color studies. Students will serve on the technical crew for the semester's Kiski Players' production as stage crew members, set designers, properties directors, lighting and sound designers, stage managers, and assistant directors. They will be responsible for creating and preparing material for Evening with the Arts or the Holiday Program.

MUSIC

KISKI MUSIC ENSEMBLE

The Kiski Music Ensemble is comprised of two subdivisions. *The Instrumental Music Ensemble* offers the instrumentalist (strings, brass, woodwinds, and percussion) an opportunity to play in a variety of musical styles. Repertoire will include excerpts from standard symphonic and instrumental literature. Auditions are held to determine placement. Students should provide their own instruments. *The Kiski Glee Club* offers interested students the opportunity to sing staples of the choral repertoire, including a cappella. Basic tone production and musicality are stressed. Grades are determined by a combination of vocal and musicianship assessments and attendance at rehearsals and performances.

HISTORY OF ROCK AND ROLL

This course will provide an overview of the history of rock and roll and how it connects to social, political, and technological developments of the time. Students will learn about the origins of rock and roll in the 1950s, its emergence as a global phenomenon in the 1960s, and its influence on modern music today. Students will explore the evolution of many popular music styles and will examine some of the most influential musicians and bands of the time. We will learn about the development and commercialization of the music industry and will discuss the impact of the media and the wider implications of rock and roll as a cultural and political force. The class will include lectures, readings, listening assignments, research assignments, and class discussions.

THE ART OF LISTENING

This course will introduce students to the history and development of music in the Western world from the Middle Ages to the present. Students will be exposed to a diverse array of musical styles, genres, and forms and will gain an understanding of the history, impact, and aesthetics of Western music and how it connects to social and historic events of the time. The class will cover Medieval music, Renaissance music, Baroque music, Classical music, Romantic music and the music of the 20th Century. Students will have the opportunity to explore and analyze the works of major composers from each period. This course will also provide an introduction to the fundamentals of basic music theory and principles of form and structure. The class will include lectures, readings, listening assignments, research assignments, and class discussions.

INDEPENDENT STUDY MUSIC

This course will give the student a chance to design, develop and create their own independent music study geared toward their particular interest and skill set. Examples include, but are not limited to: advanced music theory, composition, and music recording. The course will primarily be held during the evening and other flexible times in the schedule. A high degree of self-motivation will be a must for any student applying for this class. All students interested in this course must be approved by Mr. Minda.This is a one credit semester long class culminating in a final project to be documented for his portfolio and presented to the school either live or online.

TECHNOLOGY AND INNOVATION

YEARBOOK AND SOCIAL MEDIA

Yearbook and Social Media is a yearlong class dedicated to collecting, organizing and editing materials used by the school for social media posts and our annual yearbook. Students will collect photographs, videos, write text, create layouts and learn to edit using multiple editing softwares. Students are expected to develop the technical skills required for physical and digital publications, the creative drive to create unique and compelling records of school life and the editorial acumen to understand w hat is appropriate in different contexts.

INVENTIONLAND INSTITUTE: ENTREPRENEURSHIP

In this interdisciplinary, project-based course, students will use hands-on, real-world innovative technology and entrepreneurial skills to take their own original ideas and turn them into working prototypes. Students learn the methods developed by Invent ionland founder and CEO George Davison`82.

Teams work collaboratively to generate ideas and develop a concept model, and then engineer each part of their invention in the Innovation Lab, using CAD technology.

Each team's design is made using 3-D printing technology. To visually sell their idea, each team will use the graphic design tool *Adobe Illustrator* to construct the external packaging for their invention. Each team then creates a product sample of their invention, develop a marketing pitch and film an infomercial. The course culminates in a "Shark Tank" presentation in front of professional entrepreneurs and inventors.

ETHICS AND PERSONAL DEVELOPMENT

Ethics and Personal Development courses are designed to build students' capacities to be engaged with their world at all levels—personal, familial, communal and societal. The goal is to empower young people to make healthy, responsible choices and positive contributions to their communities. The curriculum comprises two semester-length classes required for graduation, which are typically taken during the sophomore year, as well as a series of seminars and workshops which occur each year.

HEALTH AND WELLNESS

The primary goal of this one-semester course is to guide students in making well-informed decisions related to their personal health while developing lifelong positive attitudes and behaviors which contribute to a thriving community. Study includes mental, emotional, and social health; injury and disease prevention and safety; nutrition and fitness; the use and abuse of alcohol, tobacco, and other psychoactive drugs; growth, development, and sexual health.

Central themes are personal responsibility for lifelong health, respect for and promotion of the health of others, an understanding of the process of growth and development, and critical use of health-related information, products and services.

SELF AND SOCIETY

This public speaking course is based on the premise that good communication skills are fundamental to human achievement and civilization. Through topics based on current events and national media, students examine and articulate the issues involved in the progress in our society and how they relate to traditional masculine and feminine roles.

Students analyze the influence of media and technology on these problems and practice skills in information ethics, digital citizenship, financial literacy, and modes of professional communication. Debates, oratories, legislative speeches, and interpretation comprise the basis for assessment.

SELF AND SOCIETY 2.0

This course is designed for seniors to prepare them to be successful, well-balanced, and thoughtful members of our society as they move into colleges and universities.

Key topics will include college preparedness, gender roles, social media and competing models of success. The class objective is to prepare students to be more aware of societal norms and problems and to develop an individual skill set to live life with honor and confidence.

DEPARTMENTAL INDEPENDENT STUDY

If a student has completed all offerings in a subject area or has a desire to take a course that Kiski does not currently offer, he may request permission from the Director of Studies to complete an independent study. Requests must be made prior to the beginning of semester and all independent studies require and a faculty advisor and the completion of an end of semester project and public presentation on the work completed.

Typical Sequence of Academic Courses at Kiski 25-26

Subject	Grade 9	Grade 10	Grade 11	Grade 12
English	Foundations of Literature	Traditions in Literature (Honors)	**AP Language and Composition**, Rhetoric and Composition	**AP Literature and Composition**, Topics in American Literature (I, II),
History	Foundations of World History	History of Modern World (Honors)	**AP United States History**, United States History,	**AP Human Geography**, Microeconomics, Macroeconomics, United States Government and Politics .
Math	Algebra I, Geometry with Algebraic Analysis, Algebra II (Honors)	Geometry with Algebraic Analysis, Algebra II (Honors), Precalculus (Honors)	**AP Precalculus, AP Calculus AB or BC**, Precalculus, Algebra II	**AP Calculus AB or BC, AP Statistics**, Precalculus, Financial Mathematics, Introduction to Statistics and Probability
Science	Foundations of Biology	Chemistry (Honors), Biology (Honors), Physics (Honors) Environmental Science	**AP Physics 1, AP Chemistry, AP Environmental Science**, Physics, Chemistry, Biology, Robotics	**AP Physics 1, AP Chemistry, AP Environmental Science**, **AP Psychology**, Physics, Chemistry, Biology, Robotics
World Languages	Spanish I or II French I or II	Spanish II or III French I or II	Spanish III or IV French I, II or III	Advanced Spanish, French II, III
Innovation and Technology			Inventionland, Coding (Honors),	Inventionland, Coding (Honors),
Fine Arts	Fine Arts Survey (2D/3D Design, Painting, Theater, Music)		Design/Architecture, Industrial Arts and Craft, Theater, Art of Listening, History of Rock and Roll, Yearbook**,**	Design/Architecture, Industrial Arts and Craft, Theater, Art of Listening, History of Rock and Roll, Yearbook,
Ethics and Personal Development		Self and Society, Health	Self and Society 2.0,	Self and Society 2.0,