

KARACHI AMERICAN SCHOOL

AP & NON-AP
COURSE CATALOG

INDEX

AP Courses

Page

1. AP English

- A. AP English Language & Composition
- B. AP English Literature

2. AP Social Studies

- A. AP Comparative Government
- B. AP Economics
- C. AP World History

3. Mathematics

- A. AP Calculus AB
- B. AP Statistics

4. Science

- A. AP Physics 1
- B. AP Chemistry
- C. AP Environmental Science
- D. AP Biology

5. Modern Language

- A. AP French Language & Culture
- B. AP Spanish

6. Visual/Per. Arts & Technology

- A. AP Studio Art
- B. AP Computer Science A
- C. AP Computer Science Principles

7. Electives

- A. AP Seminar
- B. AP Research

INDEX

Non-AP Courses

Page

1. English

- A. English 9
- B. English 10
- C. English 11
- D. English 12

2. Social Studies

- A. Accounting
- B. Pakistan Studies
- C. World History

3. Mathematics

- A. Algebra 1
- B. Algebra 2
- C. Geometry
- D. Pre-Calculus
- E. College Alg.
- F. Calculus

4. Science

- A. Biology
- B. Chemistry
- C. Physics
- D. Environmental Science

INDEX

Non-AP Courses

Page

5. Modern Language

- A. French 1
- B. French 2
- C. French 3
- D. French 4
- E. Spanish 1
- F. Spanish 2
- G. Spanish 3
- H. Spanish 4

6. Visual/Per. Arts & Technology

- A. Drawing
- B. Desktop Publishing
- C. Ceramics
- D. Computer Applications
- E. Desktop Publishing
- F. Beginner Concert Band
- G. Intermediate Conert Band
- H. Advanced Concert Band

Curriculum

The Karachi American School follows an American curriculum that meets United States College entrance standards and is accredited through the Middle States Association. A broad base of subjects in all academic areas is required for graduation. The curriculum is adaptable within limits to the academic needs of individual students.

Normally, seven subjects are studied each year, including mathematics, science, English, physical education, history/social studies, foreign language, the fine arts, and other electives. There will be a mandatory advisory block on weekdays and a ten-minute assembly on Fridays for all students.

High School cumulative final examinations are given at the end of each semester for most classes, and semester grades are determined in part by performance on semester exams. Each course is graded separately.

Credits

Credit toward graduation is earned on a semester basis; one-half of one credit for each satisfactorily completed semester of a course that meets for four class periods per week. Students with grade 9-12 standing must earn credit toward graduation.

Requirements for Graduation

Graduation from the Karachi American School (grade 9-12) requires a minimum of twenty-five (25) credits. In most cases, eight semesters of high school attendance are required. Required courses and credits by grade level include the following Core Classes:

Grade 9	English	Pakistan Studies	Algebra 1 or Geometry	Biology	Modern Lang: Spanish or French
Grade 10	English or AP Seminar	World Hist. or AP World Hist.	Geometry or Algebra 2	Chemistry	Modern Lang: Spanish or French
Grade 11	English or AP Lang/Lit	AP World or AP Econ Or AP Comp Gov.	Algebra 2 or Pre-Calculus	Physics, AP Chem, EnvSci, AP EnvSci	Modern Lang: Spanish or French
Grade 12	English or AP Lang/Lit	AP World or AP Econ or AP Comp Gov.	AP Statistics, AP Calc, Coll. Algebra	AP Chem, EnvSci, AP EnvSci, AP Physics	AP Spanish or AP French (4th year for Top colleges)
PE/Health 2, Visual/Per Art & Tech 4: at least 1 Art & 1 Tech, Speech/Writing (0) discontinued 2022-2023					

Curriculum

Subject	Credits
English	4
Social Studies	4
Mathematics	4
Science	4
Modern Language	3 (consecutive)
Visual/Per. Arts & Technology	4 (at least 1 V/P Art and 1 Tech)
PE/Health	2
Total	25

(ESL – Replaces Foreign/Modern Language for third country nationals only)
In addition, 60 hours of Community Service is a graduation requirement.

Repeating a Course

Students who wish to repeat a course to receive a higher grade may do so with the approval of the upper school principal. In courses that are repeated, both the original grade and the new grade are entered on the transcript. Both grades are counted when calculating the grade point average. No class may be repeated more than once.

Students who fail two or more required subjects in one academic year cannot continue at Karachi American School.

Final Examinations

At the end of each semester, final semester examinations are administered in most high school classes. Final examinations count for 10 to 20 percent of the final grade for each class as mandated by the teacher. Senior students with an average of C or above will not necessarily take final exams the 2nd semester of their senior year: they are, however, required to take the AP exam in any AP courses they have taken.

Community Service

Sixty (60) hours of Community Service is required to graduate, a minimum of fifteen (15) hours each year of High School. By fulfilling the minimal fifteen (15) hour requirement yearly, High School students will then have accumulated the sixty (60) hours required to graduate.

Curriculum

Advanced Placement Courses

The Advanced Placement (AP) Program is a strong and valuable part of the academic experience at Karachi American School. AP course work enables students to complete college level studies during secondary school, thus serving, in many ways, as an "academic bridge" that helps to smooth the transition from secondary school to college.

The primary goals of Advanced Placement Program are to enrich the secondary school experience of students willing and able to apply themselves to college level studies and to provide the means for colleges to grant credit or placement to students who have successfully completed the rigorous AP curriculum.

KAS also offers the AP International Diploma to our students. It is accepted by universities worldwide as an indication of a student's readiness for post-secondary work. It is not, however, used for credit or advanced placement in universities outside the United States, and is also not a substitute for a secondary school diploma.

To earn the International Diploma, students must earn grades of 3 or higher on at least five full-years (or the equivalent in half-year) AP examinations within at least three of five academic areas as follows:

- Two different languages from the "Languages" area
- One from either the "Sciences" or "Mathematics" areas
- One or more from any other area not previously selected
- One from AP global perspectives; World History, Government or Politics: Comparative

KAS is currently implementing the AP Capstone Diploma by offering AP Seminar in 2023-2024 to Sophomores and AP Research in 2024-2025 to those that took AP Seminar to fulfill the AP Capstone Diploma required sequence.

Curriculum

Who Can Take an AP Course at KAS?

Sophomores, Juniors, and Seniors only during the school day.

Do I Need Special Permission to Take an AP Course?

Yes! The Guidance Counselor and Principal consider all applications and after consulting teachers, make the final decision. The College Board has strict pre-requisites for Science and Math AP courses that KAS will abide by as well as teacher pre-requisites for other AP courses.

Do I Need Certain Grades to be Eligible to Enter an AP Course?

Yes! In all cases, you need minimum semester grades of at least a "B" in all prerequisite courses.

Why are the Prerequisites, Criteria and Standards for Admission to the AP Courses so High?

The criteria and standards for admission to the AP studies are high for three reasons: Firstly, AP courses are college level courses that are designed for students who are ready to take on the rigors of college work. The curriculum is rigorous and students who do not have a strong work ethic and solid preparation will not do well in the AP courses. Secondly, students with semester grades of "B-" or below have traditionally not done well in AP courses. Because of the demands of these courses, we want to help protect the student's GPA. Poor grades in AP courses do not impress college admission officers. Thirdly, students in AP classes are preparing for a final examination that will help to determine college placement credit or admissions to UK universities. Students who are not prepared for the rigors of AP work slow the class and jeopardize the exam results for the more able students.

Curriculum

How Do I Sign Up for AP Courses?

As you are determining your schedule, sign-up for those AP courses that you feel you qualify for and that meet the goals of your four-year plan and potential college majors and careers along with your non-AP courses (does not apply to Grade 9). Keep in mind the criteria mentioned previously. After you have signed up for an AP course(s) during the registration period, the Guidance Department will complete an evaluation of your prerequisite grades. The names of qualified students requesting AP courses will then be sent to the respective teachers for their consideration. When students are selected for AP coursework the Guidance Department and the Principal develop an AP and class schedule for each individual student. Students who wish to optimize their chance of being admitted to a certain AP course may speak to the teacher of that class prior to application. Appeals are to be in writing and sent to the school guidance counselor.

Do I Have to Take the Exam?

Yes, all students taking an AP course are required to take the AP Exam.

Curriculum

Math Department Policy for Course Advancement

To be eligible for course advancement (skipping the next sequenced course to get ahead), the following process must be followed:

1. Students must have a B+ in their current mathematics course at the end of the first semester and in the third quarter.
2. Students must obtain a written letter of recommendation from the math teacher of the current course to be sent to the math teacher of the advanced course. This will be kept on file in the high school office.
3. Students petitioning for advancement should send a written request to the Math Department outlining their reasons for wanting to advance to the next class, and why they feel they are prepared for such an opportunity.
4. The math teacher of the advanced course will meet with the student and parents and will make a recommendation to the high school principal as to whether students should be considered for advancement.
5. Students must take the final exam for the course they wish to exempt. This will occur during finals week or on the scheduled make-up day. A student must receive a 75% minimum grade on the final exam to pass out of the pre-requisite math class. Please note that exempted courses will not be recorded in a student transcript and no credit will be received.

Course Add/Drop Procedures

When there is good reason, students may add or drop a course within the period at the beginning of the year. Student-initiated drops require consultation with the teacher and guidance counselor. Beyond the two weeks, classes may be dropped only in exceptional circumstances, with the approval of the principal and guidance counselor.

Progress Reports:

Formal progress reports are no longer sent month-to-month. Students and parents can check progress virtually via the Plus Portals system. In exceptional cases students and parents may be sent letters/emails from the school administration if grades are dangerously low or may compromise a student's ability to graduate.

Curriculum

Report cards.

At the end of each academic quarter, report cards are sent home. Parent conferences are arranged as needed. Grades are issued for each course as follows:

	%	GPA		%	GPA		
A	(93-100)	4.0	C	(73-76)	2.0	I	Inc.
A-	(90- 92)	3.7	C-	(70-72)	1.7	P	Pass
B+	(87- 89)	3.3	D+	(67-69)	1.3	W	Withdrawn
B	(83- 86)	3.0	D	(63-66)	1.0	F	Fail
B-	(80- 82)	2.7	D-	(60-62)	0.7		
C+	(77- 79)	2.3	F	(0-59)	0.0		

A	=	Outstanding Progress
B	=	Above Average Progress
C	=	Average Progress
D	=	Below Average Progress
F	=	Failing Grade

Advanced Placement (AP) course grades are weighted for reporting purposes (x1.2). AP grade weighting will be noted on transcripts sent to colleges. AP grade weighting is not indicated on the KAS Report Cards, nor is it used in determining class rank, eligibility for the National Honor Society, or inclusion on the Honor Roll.

A = 4.8	A- = 4.4	B+ = 4.0	B = 3.6	B- = 3.2	C+ = 2.3
C = 2.0	C- = 1.7	D+ = 1.3	D = 1.0	D- = 0.7	F = 0

Class Rank:

Because of the relatively small size and strong quality of our graduating classes, we have chosen not to rank our students.

Curriculum

Credit Check Chart for self-monitoring.

Families are encouraged to use the below to track grades and credits earned before registering for next year's courses keeping in mind the above pre-requisites for AP courses and math advancement.

	9th Grade Yr:		10th Grade Yr:		11th Grade Yr:		12th Grade Yr:		TOTALS
English									(4)
Social Studies									(4)
Mathematics									(4)
Science									(4)
Modern Language									(3)
V/P Arts & Tech*									(4)
PE/Health									(2)
Speech & Writing									(0)
Electives									Electives
Community Service									(60)

* At least one Art and one Tech credit MUST be taken. Students may specialize for the rest of the credits. Those tech oriented may want to take 1 art class, Computer Applications and both AP Computer Sciences to fulfill the 4 credit total. Those that prefer the Arts may take Computer Applications and then 3 other Art classes including AP Studio Art to get to 4 credits.

AP LANGUAGE & COMPOSITION

(1 ENGLISH CREDIT)

Knights Difficulty: 

Office Hours: Office hours are by appointment only and must be made at least 24 hours in advance. To schedule an appointment, please email me at JohnsonDanielle@kas.edu.pk

Textbook/Readings:

Shea, Renee H., Lawrence Scanlon and Robin Dissin Aufses. *The Language of Composition*, Boston: Bedford/St. Martin's, 2013

Throughout the course, students will read and analyze a wide range of texts to build an understanding of themselves, of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.

Course Overview

In Advanced Placement Language and Composition, students will be challenged to read and write at the college level and to identify, employ, and analyze the elements of effective writing. This course will be considerably more challenging, and rigorous than the general education class offered, and is designed to provide students with the opportunity to carefully analyze a wide range of nonfiction prose, poetry and works of fiction for rhetorical purposes. Although students will have the opportunity to write in a variety of genres, most of the writing assignments will tackle persuasive or analytical tasks.

Classroom Expectations

Through the course, students will be demonstrating learning through individual work, group projects, and classroom discussions. Due to the high level of rigor, students must be prepared for additional reading and writing outside the classroom.

Plagiarism

Plagiarism will not be tolerated in this course. Please see the KAS Student Handbook for the plagiarism policy, and disciplinary action steps.

Student Evaluation

Grades will be calculated using the following weights:

Journals, annotations, reading responses, homework 20 %

Major essays, presentations, and projects 30%

In-class assessments 40%

Seminar and group work 10%

*****Students taking an AP course are required to take the AP Exam*****

AP LANGUAGE & COMPOSITION

(1 ENGLISH CREDIT)

Knights Difficulty: 

Materials and Tech Requirement

Students are expected to bring their laptop or iPad each day, along with any reading materials assigned. Google Classroom should be checked daily for lessons/assignments, submissions, and announcements.

General Course Outline (subject to change as needed)

Unit One: An Introduction to Rhetoric

Unit Two: Close Reading: The Art and Craft of Analysis

Unit Three: Analyzing Arguments: From Reading to Writing

Unit Four: The Crucible

Unit Five: Synthesizing Sources

Unit Six: In Cold Blood

Unit Seven: AP Exam Review

AP Language and Composition Skills

Rhetorical Situation Reading- Explain how writers' choices affect the components of the rhetorical situation

Rhetorical Situation writing- Make strategic choices in a text to address a rhetorical situation

Claims and evidence Reading- Identify and describe the claims and evidence of an argument

Claims and Evidence Writing- Analyze and select evidence to develop and refine a claim

Reasoning and Organization Reading- Describe the reasoning, organization, and development of an argument

Reasoning and Organization Writing- Use organization and commentary to illuminate the line of reasoning in an argument

Style Reading- Explain how writers' stylistic choices contribute to the purpose of an argument

Style Writing- Select words and use elements of composition to advance an argument

Class Supplies

Three-ring binder or folder dedicated to AP Lang

Reading/writing journal

Pencils

Blue/black pens

Highlighters

AP LITERATURE

(1 ENGLISH CREDIT)

Knights Difficulty: 

Course Overview

The AP English Literature and Composition course focuses on reading, analyzing, and writing about imaginative literature (fiction, poetry, drama) from various periods. Students will engage in close reading and critical analysis of imaginative literature to deepen their understanding of complex themes. Students will consider a work's structure, style, and themes, as well as its use of figurative language, imagery, and symbolism. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works. You will also be given various creative projects and group discussions. See the next page for exam weights and specific skills.

Level

Available to juniors and seniors with a B or higher in English.

Student Evaluation

Annotations, homework, and reading responses 20%

Major Papers, Presentations and projects 30%

In class assessments 40%

Participation and Class Discussion 10%

Basic Units of Study:

Semesters I

Unit One: Read Literature Like a Professor

Unit Two: Poetry I

Unit Three: Metamorphosis

Unit Four: Prose Analysis Unit

Unit Five: Poem Unit II

Unit Six: Shakespeare Unit

Ongoing: Independent Novel Project

Semester II

Unit One: Frankenstein

Unit Two: Where the Crawdads Sing

Unit Three: Poetry Then & Now

Unit Four: Things Fall Apart or
Poisonwood Bible

Unit Five: Literary Movements

Unit Six: AP Test Prep

Ongoing: Independent Novel
Project

Common Questions:

Is AP Lit hard?

Yes, but it is also fun. This is your opportunity to work with complex themes. Provide your own textual analysis in a small group setting. You will argue, debate, persuade, and analyze texts from various time periods, authors, and genres.

Is there a lot of reading?

Yes, but time is spent in class reviewing and diving deeper into the text.

Is the test difficult?

All AP tests are difficult. The work and class discussions will prepare you.

Should I take AP Lit?

YES!

AP Comparative Government

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Course Overview

AP Comparative Government and Politics is a critical field of study for young people. The twenty-first century has taught us that we cannot ignore the world around us. Happenings around the globe now directly impact our lives, and social studies teachers and students around the country face the challenge of interpreting many puzzling international events. The AP Comparative Government and Politics course focuses on government and politics in other countries and provides a theoretical framework to compare political systems around the world. It is my hope that my students grasp something of the political complexities of our global environment and gain some understanding of both commonalities and differences among modern political systems. In today's world, we cannot afford not to know.

Learning Outcomes

Students successfully completing this course will be able to:

- define and describe major comparative political concepts
- support generalizations with relevant information pertaining to the governments and politics of China, Great Britain, Iran, Mexico, Nigeria, and Russia
- analyze typical patterns of political processes and behavior and their consequences
- compare political institutions and processes across countries
- analyze and interpret basic data relevant to comparative government and politics.

Prerequisites

Students should have a B or better in Social Studies classes and be strong at exam taking. Social Studies teachers will be contacted if a student applies to this course.

Please note that this is NOT an easy class, but it is an interesting one. If you are NOT ready to give 100% from the first day of class to the last day of class, then please do not register.

AP Comparative Government

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Grading Weights

Term 1, 2, 3, 4

Unit Tests- 50 %- (6-7unit exams through the year) +Independent Study
+Mock Exam

Quizzes and Tuizzes (done every week at a minimum)- 30%

Homework, Classwork, Current Events (at least 2-3 a unit) 20%

Units:

Semester 1- Introduction Unit, UK, Russia, China

Semester 2- Mexico, Nigeria, Iran, Review Unit

Unit 1 Introduction to Comparative Politics

Unit 2 The UK & the European Union

Unit 3 Russia

Unit 4 China

Unit 5 Mexico

Unit 6 Nigeria

Unit 7 Iran and Review Unit

AP ECONOMICS

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

AP Economics is the most useful course you will take that will impact every day for the rest of your life! You already do economics (decide what to buy for lunch, shop for kicks), so we'll be adding technical language and skills that will help you understand your personal choices and how the world works. Why do we care about droughts? NASDAQ? What's that? Crypto-what? If you are going to study any business field in college—Marketing, Management, Finance, Accounting—AP Econ is a MUST! Of course, it would help if you're thinking of Economics too like Ameesha Patel, Shah Rukh Khan, Lara Dutta, Arnold Schwarzenegger, Bill Belichick, Cate Blanchett, Elon Musk, Mick Jagger, and Tiger Woods to name a few.

The first semester is an introduction to Microeconomics, which is all about you. Specifically, how & why you and your future business make the choices you do. The second semester will be an introduction to Macroeconomics which deals with the national & global economy as a whole: Trade! GDP! INFLATION! Unemployment! Debt! Interest rates IMF! Oh, my! Caution! AP Economics is 2 AP courses (12 Units!), 2 exams and potentially 2 college credits! *pre-requisite: must have this year's math teacher recommendation via email.

Text and other Resources:

AP Classroom web site—more important than the textbook. You'll use your College Board account to access it. Econclassroom.com is another site we'll use.

Local and International current news articles such as Dawn, The Economist, New York Times, etc. to practice using your developing economic analysis skills. Economics: Principles, Problems and Policies, 19th. Ed.; McConnell, Campbell; Brue, Stanley, Flynn, Sean; McGraw-Hill Irwin, 2012.

Format of the Course:

We will work in groups as well as independently just like real world work situations—marketing teams, engineering teams, surgical teams. You will complete daily homework on-time. For each unit, students will take Cornell Notes, make annotations, and be able to apply Economic theory to real world examples. And of course, quizzes & tests: MCQ's & FRQ's with modeling. Expect an average of 30 minutes of homework per school day, double that on weekends. There is no substitute for hard work. Just do it!

AP ECONOMICS

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Assessment:

Grading each semester will be as follows:

- Unit Tests (MC and SA/FRQ's) 50%
- Daily work (daily work, quizzes) 30%
- Participation (active questioning, solving) 20%

The above is for each quarter. Each quarter counts as 40.0% of the semester grade.

- Semester (Mid-term) Exam (MC and FRQs) 20%

Sign up future Business Moguls, Captains of Industry, Presidents and Ministers, Bezos billionaire wannabes! Email Mr. Jopowicz at jopowicz@kas.edu.pk to arrange a meeting in 213 in the New Building for more information next week. Or catch me at lunch in the cafe or library or after school at the gate. I'm always around!

You can go to the AP Micro and AP Macro sites for more details.

AP WORLD HISTORY

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Course Overview: In AP World History: Modern, juniors and seniors investigate significant events, individuals, developments, and processes from 1200 to the present. Students develop and use the same skills and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change. The course provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: humans and the environment, cultural developments and interactions, governance, economic systems, social interactions and organization, and technology and innovation. There are no prerequisites. I'll evaluate each student's desire to take the course individually.

Course Objectives:

- Explain systems of governance and expansion, their strengths and weaknesses
- Explain the causes and effects of culture, exchange, and innovation over time
- Explain the reciprocal impacts of the environment on people and places
- Explain the value of leadership in historical contexts
- Explain cross-cultural interactions, migration, and their benefits and impacts
- Explain the positive and negative economic impacts of increasing global interaction
- Explain how social roles have changed or stayed the same over time and those effects
- Explain revolutions, both governmental and otherwise, their causes and impacts
- Explain the causes of effects of war
- Master notetaking and study skills to prepare for the AP Exam
- Master test-taking skills in order to find success on the AP Exam

AP WORLD HISTORY

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Course Layout: This course is broken down into nine units, each counting for a different percentage on the AP Exam. Through these nine sections, we will cover the above objectives and complete assessments and activities having to do with the six historical thinking skills.

Grading Policy: This course is marked in six different scoring areas: Learner Development (how you approach learning), Exams, Multiple Choice Questions (MCQ), Document-Based Questions (DBQ), Short Answer Questions (SAQ) and Long Essays (LEQ). The latter four represent the four main areas of the AP World History Exam, to be taken in May.

Frequently Asked Questions:

- Is this class difficult? Yes, but in the way that all APs are difficult. If you are a naturally gifted historian and/or writer, then that gives you a leg-up in the class.
- How much homework is there? Students are expected to complete 30-45 minutes of AP World History homework most every evening. I try to minimize the work on the weekends. There is no homework over holidays.
- What does the in-class environment look like? Students work individually and in groups in order to analyze historical people, places, and events. You work hard and laugh hard at the same time.
- What are the biggest challenges of the course? Most of the challenges of the course are a result of the pace of AP World History. This course moves very, very quickly. The biggest benefits are that you have a deep and broad understanding of history to take into college.
- Is this course for me? More than likely, the answer to this is, yes. If you're up for a challenging and rewarding experience, then this course is for you.

AP Calculus AB

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

AP Calculus AB focuses on students' understanding of calculus concepts and provide experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), each course becomes a cohesive whole, rather than a collection of unrelated topics. This course requires that students use definitions and theorems to build arguments and justify conclusions. The courses feature a multirepresentational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally.

Is AP Calculus hard?

Yes! AP Calculus is one of the hardest exams to pass and the class is difficult. Historically, only 15% of my students achieve a final grade of A- or A in the course.

What is the class like?

The good news: I give you all the homework and the answers at the beginning the course. I also give you access to previously published AP questions and study guides. This means that you have everything you could possibly need to succeed in the class at your fingertips. In class, we work through problems together as a group with a focus on conceptual understanding.

The bad news: You MUST be self-motivated to do well in this course. Because I do not check homework and only give DeltaMath assignments for a completion grade, the majority of your grade will come from quizzes and tests. If you decide not to do the homework you WILL fail these and your grade will suffer. What are the pre-requisites for AP Calculus?

In order to sign up for AP Calculus you must have completed Pre-Calculus with a grade of B- or higher AND have the written permission of the instructor.

Why should I take AP Calculus?

Learning calculus can open a lot of doors. Almost every major in math (including statistics), science, engineering, computer science, finance, and economics will have to take some form of calculus. Earning college credit from AP[®] Calculus will save you time and money, and open opportunities in classes for which calculus is a prerequisite. Even if math is not part of your college major, you will likely have general education requirements in math that can be satisfied by AP[®] Calculus. And if you don't get college credit, AP[®] Calculus will still give you earlier exposure to college level math. Calculus is very different from earlier math courses, so many students just need time to wrap their heads around the content. An extra calculus class in high school may give you the time you need to make a strong start in your college math career.

AP STATISTICS

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

1. What are the prerequisites?

Anyone who has taken Algebra 2 can take it. Many students take it along with another math course (precalculus or calculus)

2. How rigorous is it?

It is an AP class, so it's definitely not easy. It is not as rigorous as AP Calc but you have to be willing to put in the work and learn a new type of math you've never seen before.

3. Is the math hard?

No. In fact, all of the calculations will be done on the calculator. (And you'll have a formula sheet!) But being able to read, interpret, and respond to questions will be vital.

4. How much homework will there be? You don't get better at anything without practicing. But in terms of an AP class, homework is definitely manageable.

5. What do you learn? We go waaay beyond mean, median, and mode. Most of AP Stats is reading and interpreting real-life situations.

- Did Beyonce write her songs?
- Do you drink your cereal milk?
- Is Mrs. Fouss really an 80% free throw shooter?

6. Can I get credit for it at the college I want to go to?

Most colleges will give you credit with a score of 3 on the AP Stats Exam. You can find a specific school on the AP website (apstudents.collegeboard.org).

7. Should I take AP Calc or AP Statistics?

Check out the images to the right. (And why not take both?!)

AP STATISTICS

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

8. Will my major require it? You should check out the required classes list from a college you're considering first. Many colleges are beginning to require ALL students to take a STATS course.

See both images for a general rule of thumb. Business majors will probably need to take both calculus and statistics. You want to choose a course that sets you up well for your college math requirements.

STATS is especially recommended for anyone interested in psychology/sociology, journalism, law, and anyone interested in doing research in the future.

AP Stats is your opportunity to learn how to produce and use data, to recognize bad data, and to make decisions with data. If you want to chat more about this, please let me know. I am happy to answer any other questions!

AP PHYSICS

(1 SCIENCE CREDIT)

Knights Difficulty: 

Introduction

AP Physics 1 is an algebra-based physics course that is focused on basic mechanics. Units in this course currently consist of the following.

- Kinematics – the study of how objects move (position, velocity, and acceleration)
- Dynamics – the study of why objects move (Newton's laws of motion)
- Circular motion – how forces, velocity, and acceleration act when an object is moving in a circle
- Work and energy – the study of conservative and nonconservative forces.
- Momentum – the study of collisions between objects
- Rotational motion – explores rolling objects (angular velocity, torque, angular momentum)
- Elementary wave mechanics – the study of oscillating objects

This is the current make-up of Physics 1. However, it is possible one or two new units may be added in the fall.

Pre-requisite

Students must be concurrently enrolled in Pre-calculus.

AP Physics 1 is very conceptual, and presents a number of abstract questions. Students must have very good reasoning skills and be willing to look at problems from different viewpoints. There is very little computation on the AP exam, but there will be a reasonable amount in the class.

AP Physics 1, is also a laboratory based course. While some labs are guided, many will be open inquiry. Open inquiry means that students ask a question and come up with a way to investigate their question. The AP Physics 1 exam will pose a number of questions based on laboratory exercises. There will be at least one problem where you have to design a lab. In addition, you will be given data sets and will be asked to provide an analysis. Data analysis is an important aspect of the class.

Student Evaluation

Quarter Grade Allocation

15% Problem Solving, Homework

25% Laboratory Reports

60% Summative Assessments and Quizzes –

40% Second Semester

may include tests or projects

Semester Grade Allocation

40% First Semester

10% First Semester Midterm Exam

40% Second Semester

10% Second Semester Final Exam

AP PHYSICS

(1 SCIENCE CREDIT)

Knights Difficulty: 

Work Load

Homework assignments will be given daily. Some may take only a few minutes, but others may take up to one hour. Doing the homework is critical as problems will be posed that are not discussed in class.

Laboratory reports follow the format used in the general Physics class. Analyzing and evaluating data sets is an important part of the course. Students will keep all laboratory work in a separate logbook. Should you do well enough on the AP exam to receive university credit, it is likely that the university will ask for evidence of your lab work. The work we do in class should be sufficient to satisfy that requirement.

Tests are patterned after the AP format and include a mixture of AP questions and teacher generated questions. Many MCQ questions will have to be explained on tests. The tests are challenging and difficult to complete in the time period given. Students are expected to show mastery of the material on tests, so tests are marked on the standard KAS grade scale – there are no curves.

Because of the difficulty of the subject and the demands of assessment items, grades in this class can be low, often one to two letters below what a student earned in the general Physics class. Only 6% to 7% of students who take the AP exam score a 5, so you will have to really understand physics to earn an A in this class.

AP CHEMISTRY

(1 SCIENCE CREDIT)

Knights Difficulty: 

AP Chemistry is an intense course of study that will train you to think at higher levels and challenge your academic ability.

Why would you choose to accept this challenge?

- You are obsessed with the science of chemistry and would love to spend another year on it
- You are interested in the STEM field and want to familiarize yourself with it beforehand

If you check one or both boxes above, then hop on to this nothing-short-of-a rollercoaster ride.

The entire class is based off logical thinking and applying concepts that will polish your abilities at problem solving at college level.

Is AP Chem difficult?

AP Chemistry is considered one of the hardest AP subjects.

You must be pre-equipped with a strong high school chemistry base and math should be at your fingertips.

This is a very fast paced class. You are expected to keep up with every assignment otherwise you will easily be left behind, never to catch up again. If you're willing to dedicate time and effort on a daily basis, this subject is for you.

Prerequisites:

Recommendation and approval from the Math/Physics and Chemistry teacher.

(Continued)

AP CHEMISTRY

(1 SCIENCE CREDIT)

Knights Difficulty: 

UNIT 1	Atomic structure and properties	Mass spectrometry Photoelectron spectroscopy
UNIT 2	Molecular and Ionic compound structure and properties	Intramolecular forces – VESPR – Resonance and formal charge
UNIT 3	Intermolecular forces and properties	Ideal gas laws and deviation – Chromatography – Beer Ambert law
UNIT 4	Chemical Reactions	Stoichiometry – Titration – Oxidation Reduction reactions
UNIT 5	Kinetics	Rate law – Reaction rates – Catalysis
UNIT 6	Thermodynamics	Exothermic and Endothermic reactions – Heat transfer and thermal equilibrium – Calorimetry – Hess's law – Enthalpy
UNIT 7	Equilibrium	Equilibrium constant and Reaction quotient – Le Chatelier's principle
UNIT 8	Acids and Bases	pH and pOH – Buffers – structure of acids and bases
UNIT 9	Application of thermodynamics	Entropy – Gibbs free energy – Galvanic and electrolytic cells – Electrolysis and Faraday's law

AP ENVIRONMENTAL SCIENCE

(1 SCIENCE CREDIT)

Knights Difficulty: 

Course Overview

A student enrolled in AP Environmental Science will conduct in depth scientific studies of ecosystems, population dynamics, resource management, and the environmental consequences of natural and anthropogenic processes. He / She will formulate, design and carry out laboratory and field investigations. Students will exit the course with essential tools for understanding the complexities of national and global environmental systems. Hands on activities and laboratory experiments are included. It embraces a wide variety of topics from different areas of study including biology, chemistry, earth science, social sciences and politics.

See the next page for exam weights and specific skills.

Level

Juniors and Seniors as the students should have completed two years of high school laboratory science—one year of life science and one year of physical science (e.g., a year of biology and a year of chemistry). Due to the quantitative analysis required in the course, students should also have taken at least one year of algebra.

Student Evaluation

Homework / Classwork / Labs / projects 30 % Participation 10 % Assessments 60%

Basic Units of Study:

- UNIT 1 Ecosystems
- UNIT 2 Biodiversity
- UNIT 3 Population
- UNIT 4 Earth Systems and Resources
- UNIT 5 Land and Water Use
- UNIT 6 Energy Resources and Consumption
- UNIT 7 Atmospheric Pollution
- UNIT 8 Aquatic and Terrestrial Pollution
- UNIT 9 Global Change

AP ENVIRONMENTAL SCIENCE

(1 SCIENCE CREDIT)

Knights Difficulty: 

Common Questions:

Is AP Environmental Science hard?

Yes, but it is also fun. This is your opportunity to work with complex processes. Conduct your own lab studies and procedures and provide analysis in a small group setting.

Is there a lot of reading?

Yes, but time is spent in class reviewing and diving deeper into the course content.

Is the test difficult?

All AP tests are difficult. The work and class discussions will prepare you.

Should I take APES?

YES!

The College Board will expect you to hone the following skills:

- **Concept Explanation:** Explain environmental concepts, processes, and models presented in written format.
- **Visual Representations:** Analyze visual representations of environmental concepts and processes.
- **Text Analysis:** Analyze sources of information about environmental issues.
- **Scientific Experiments:** Analyze research studies that test environmental principles.
- **Data Analysis:** Analyze and interpret quantitative data represented in tables, charts, and graphs.
- **Mathematical Routines:** Apply quantitative methods to address environmental concepts.
- **Environmental Solutions:** Propose and justify solutions to environmental problems.

AP Environmental Science Exam Structure

AP ENVIRONMENTAL SCIENCE EXAM: 2 HOURS, 40 MINUTES

Assessment Overview

The AP Environmental Science Exam assesses student understanding of the science practices and learning objectives outlined in the course framework. The exam is 2 hours and 40 minutes long and includes 80 multiple-choice questions and 3 free-response questions. A four function, scientific, or graphing calculator is allowed on both sections of the exam.

AP FRENCH LANGUAGE & CULTURE

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Description

Students enrolled in the Advanced Placement Program in French Language and Culture must have a good command of French grammar and vocabulary and have competence in listening, speaking, reading, writing skills and culture. This course is taught completely in French. All explanations of material, including explanations of grammar and vocabulary, discussions, questions and answers, cultural information are in French. AP French is a digital class. The IPAD is used for digital delivery of text, Internet research, recordings, blogs and pod casts. Starting August 2011, the AP French Language and Culture objectives are revised based on the three modes of communication--Interpersonal, Interpretive and Presentational as defined in the Standards for Foreign Language Learning in the 21st Century. The course revisions also acknowledge the connectedness of comprehension and comprehensibility, vocabulary usage, language control, communication strategies and cultural awareness in developing language proficiency. The revised curriculum structured around 6 broad themes--Global Challenges, Science and Technology, Contemporary life, Personal and Public Identities, Families and Communities, and Beauty and Aesthetics-- promotes an integration of Language and Culture. It is required that all French AP students take the AP French Language and Culture exam in May.

COURSE OVERVIEW/ LEARNING OBJECTIVES: The AP French Language and Culture course emphasizes the use of language for active Communication [Ecrire et Orale]; To have students become proficient in Interpersonal, Interpretive and Presentational communication in preparation for the AP French Language and Culture Exam instead of AP French Exam. To stress listening, speaking, reading and writing through each of the 3 modes of Communication using 6 themes vocabulary and advanced grammatical structures. To enrich the student's cultural knowledge and experience with the Francophone world through a comparison with their own cultural experience of the 6 course themes (product/ perspectives/ pratique).

Course Expectations: To be successful in AP French, students need to work on a regular and consistent basis. Students must spend a minimum of 1 hour of independent study at home each evening in preparation for the next day's class. This 1 hr. of nightly study is independent of time needed for quiz and test preparation. Also, students are required to read and study all audio and print material [prompts] for communication [interpersonal, interpretive, and presentational] and literature/culture/current events discussions. In addition, the course emphasizes extensive use of the organization and writing of persuasive essays, journals, letters and dialogs. Listening and Spoken prompts are practiced from a variety of authentic sources; themes and genres. You must have your IPAD or lap top with you in class.

AP FRENCH LANGUAGE & CULTURE

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Organization: As this course is equivalent to an intermediate college- level French course, it is conducted in a seminar fashion, whereby the AP students with their FR 4 Honors classmates participate and review vocabulary and grammatical structures in context. Every 2-3 weeks, a new theme is introduced. Within the theme, all students work on all aspects of communication: listening, speaking, reading, writing and culture. Activities Include the 3 modes of communication: interpretive, interpersonal, and presentational. In lieu of a formal test for each theme or grammatical structure, students are evaluated based on various listening, reading, writing, and speaking assignments, which are graded according to the AP guidelines.

Daily/Weekly activities

As of August 2019, Students joined the AP online class (CB) and practiced the MCQS & FRQS as class/ home review assignments. The online AP CB classes will continue as part of the regular AP program which comprises the 6 themes- based curriculum. Online Unit 1-6 videos are paced with the regular course work and used according to student needs.

- Students write 3-5 separate homework paragraphs/letters/dialogs /textos or blogs [fichiers] analyzing a specific aspect of a theme using APprenons & En Parlant. These paragraphs are graded for effort in using various thematic vocabulary and grammar structures, cultural context and perspective.
- Students record their answers to a discussion question, prompt, or dialog within a specific theme. Timed responses are introduced gradually.
- Students present their digital graphic organizers on varied 6 theme-based vocabulary and grammatical structures. Use Quizlet site as a resource for additional vocabulary.
- Students read, listen and discuss articles from APprenons, Ap online, France-Amérique and AP French Ladd or other periodicals to start discussion, linking it with the 6 themes.
- Students practice the print and audio MCQS sections from APprenons, Ladd, AP Online, Au -Delà, REA and previous AP CB exams.
- Students listen to audio passages from APprenons, Au-Delà, AP French Ladd, AP online preparing for the language exam.
- Students participate in weekly discussions in French on current/francophone events heard or read online; practicing the Cultural Comparison component in both APprenons and AP online.
- Students synthesize and analyze info gleaned from pod casts, songs, film, artwork and photos as presented in different texts online and textbook.
- Students synthesize and analyze info gleaned from newspapers, magazine , internet articles and literary texts Camus, Carmen, L'homme qui plantait etc
- Students complete the grammar, vocabulary, lecture and cultural exercices in Apprenons and use Une Foix pour Toutes as a basic grammaire and vocabulaire text if needed.

AP FRENCH LANGUAGE & CULTURE

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

- Students take a weekly grammar and thematic vocabulary spoken/ written quiz.
- Students keep weekly current events I pad journal [or fichiers] where they select an article online/print This event corresponds to the monthly 6 theme review. New thematic vocabulary is summarized with a grammatical structure. En Parlant thematic themes of conversation and culture are practiced with Fr 4.
- Students participate in class conversation [or with Fr 4 Honors] based on topics covering the 6 themes and using authentic resources of En Parlant, APprenons, Chante France.
- Students practice speaking informally/formally in pairs/small groups using conversation questions and dialogs from En Parlant, Au-Delà, AP French Ladd, APprenons and Rea. Timed Conversation and Comparison Culturel (CB FRQS) are reviewed as the year progresses.
- Every 1/2-week students write a formal, well organized analytical or persuasive essay that is evaluated for its content, vocabulary and grammatical correctness.
- Every alternate week students practice and write a Formal Letter and a Argumentative Essay that is timed and evaluated according to AP guidelines.
- Students watch / listen to current films/ actualites / pod casts based on their novels; 6 themes readings.

Assessment: Interpretive/Interpersonal/Presentational

Oral performance-- based on regular informal in-class participation along with interpersonal speaking assessments and oral presentations on cultural/6 theme-based topics, graded using the AP scoring guidelines.

Written performance--based on in class essays, dialog journals, letters, and interpersonal writing assignments, graded using the AP Free Response scoring guidelines.

Reading and listening performance—based on both informal [comprehension and vocabulary quizzes] and formal [multiple-choice passages in the format of the AP exam] assessments given regularly.

Grading: Grades are posted on PlusPortals :

Quiz/tests [oral/écrit] Theme based MCQS/Free Response	50%
Projects/class presentations/class discussion, summaries, dialogs	25%
Reading Assignments/journals/letters/essays/dialogs/exposé mp3	25%

Semester Exams: oral/written

10–20% of semester grade.

AP SPANISH LANGUAGE & CULTURE

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Overview

This course provides opportunities for students to demonstrate their proficiency in the three modes of communication (Interpretive, Interpersonal, and Presentational) from the Intermediate to the Pre-Advanced range. This course is conducted exclusively in Spanish and the integration of authentic and diverse resources is one of its central features. Students enrolled in the Advanced Placement Program in Spanish must have a good command of the Spanish vocabulary and grammar, and they must have competence in listening, speaking, reading, and writing skills. The AP Spanish Language and Culture course emphasizes the use of language for active communication, written as well as spoken.

Course Expectations

To be successful in AP Spanish, students will be required to work on a regular and consistent basis. Students must spend a minimum of one hour every day to prepare for the next day class. Students will be required to read and study a variety of articles on culture, literature, and current events in the Hispanic world.

Prerequisites

Students must have successfully completed third or fourth year of high-school-level study.

Student Evaluation

Presentations and projects 30 %

Test and quizzes Theme based MCQ's 40 %

Reading and writing assessments 30%

Major Themes

The course is structured around six specific themes (with each theme further divided into six "Contexts")

AP SPANISH LANGUAGE & CULTURE

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Each unit of study corresponds with one of the 6 themes of the Spanish AP Language and Culture exam: Families and Communities, Science and Technology, Beauty and Aesthetics, Contemporary Life, Global Challenges, and Personal and Public Identities.

The essential questions for each theme become the critical drivers for teaching and learning, and the corresponding cultural elements included help students to discover patterns, make connections and comparisons, problem solve and guide them to discover meaning.

Unit 1: Families in Different Societies

You'll learn Spanish language skills in the context of studying family life and values in Spanish-speaking communities and explore contemporary beliefs and challenges that families face.

Unit 2: The Influence of Language and Culture on Identity

You'll build your vocabulary and learn about how language and culture shape and reflect evolving ideas about identity in Spanish-speaking societies.

Unit 3: Influences of beauty and Art

You will explore how ideas of beauty and art influence and reflect culture in Spanish -speaking communities.

Unit 4: How Science and Technology Affect Our Lives

You'll examine how developments in science and technology affect daily life in Spanish-speaking communities and use your growing language skills to help you interpret unfamiliar words and engage in more complicated texts.

Unit 5: Factors That Impact the Quality of Life

You'll learn more about contemporary life in Spanish-speaking communities and how social status, cultural perspectives, and access to jobs and resources can make an impact on the quality of life.

Unit 6: Environmental, Political, and Societal Challenges

You'll explore how complex global issues affect people's lives in Spanish-speaking communities and engage in deeper discussions to suggest possible solutions.

AP STUDIO ART

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

This portfolio is designated for work that focuses on the use of two-dimensional (2-D) elements and principles of art and design. Students should consider how materials, processes, and ideas can be used to make work that exists on a flat surface.

Students can work with any materials, processes, and ideas.

At KAS, we offer a choice between two AP Art Portfolios: AP 2D design & AP Drawing. Both AP Portfolio exams contain two sections. **Sustained Investigation (SI) and Selected Works (SW)**. The **SW** section requires students to demonstrate skillful synthesis of materials, processes, and ideas. The **SI** section requires students to conduct a continuous investigation based on questions.

Selected Works Section (SW)

This section of the AP Art and Design Portfolio Exams, Students should carefully select works that best demonstrate their skillful synthesis of materials, processes, and ideas. The submission can be a group of related works, unrelated works. Along with each work, students are required to submit written responses about the work.

Sustained Investigation Section (SI)

This section of the AP Art and Design Portfolio Exams offers students the opportunity to make and present works of art and design based on an in-depth investigation of materials, processes, and ideas done over time. Sustained investigation is guided by questions. It involves practice, experimentation, and revision using materials, processes, and ideas. Along with each work, students are required to submit written responses to prompts about the work.

Questions that guide the sustained investigation are typically formulated at the beginning of portfolio development. Students should formulate their questions based on their own experiences and ideas. These guiding questions should be documented and further developed by students throughout the sustained investigation.

AP STUDIO ART

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Requirements and prompts

Submit 15 images that demonstrate:

- Sustained investigation through practice, experimentation, and revision
- Sustained investigation of materials, processes, and ideas
- Synthesis of materials, processes, and ideas
- 2-D or drawing skills.

State the following in writing:

- Identify the questions that guided your sustained investigation.
- Describe how your sustained investigation shows evidence of practice, experimentation, and review guided by your questions

Questions that guide the sustained investigation are typically formulated at the beginning of portfolio development. Students should formulate their questions based on their own experiences and ideas. These guiding questions should be documented and further developed by students throughout the sustained investigation.

The most successful portfolio submissions will demonstrate:

- Written and visual evidence of questions/inquiry that promotes the Sustained Investigation
- Visual evidence of synthesis of materials, processes, and ideas
- Visual evidence of advanced 2-D or drawing skills

OVER ALL 12-15 WORKS OF ART ARE PRODUCED FOR THE PORTFOLIO

SEMESTER GRADING:

Sketch/ Brain storming: 30%

Projects: 60%

Class Participation: 10%

AP COMPUTER SCIENCE A

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Overview:

AP Computer Science A has been designed as a year-long high school course that fully addresses the big ideas, computational thinking practices and skills, and sequenced curriculum units, as specified by the College Board's AP Computer Science A curriculum framework. The lessons and materials used throughout this course incorporate Project-Based Learning (PBL), a pedagogical approach that actively engages students in the educational process, improves retention, and develops problem solving, critical thinking, and group communication skills. Through this collaborative, learner-centric approach, students are encouraged to explore the advantages and societal impact of computational technology while developing their programming and computational thinking skills through Java. It is recommended that students have daily access to the Internet. Students are also required to have access to a computer for a minimum of three hours a week.

Course Outline

Unit 1: Introductions Are in Order

Unit 1 is a gentle introduction to the AP Computer Science A course and text-based programming languages. The programming activities in Unit 1 use the Python with Turtle graphical programming language and Repl.it is the online IDE used throughout the course.

Unit 2: Primitive Control

This unit introduces object-oriented programming, primitive data types in Java, mathematical expressions and operators, Boolean expressions, conditionals, using objects, and the Math class

Unit 3: Strings and Iteration

Unit 3 concentrates on the String class and the String class methods. This unit introduces many of the most common string manipulating algorithms as well as iteration and the Java control structures while loop and for loop that allow for the use of repetition in programs.

Unit 4: Objects, Classes, and Methods

Unit 4 takes a deep dive into Object Oriented Programming by introducing all the components of a class including private instance variables, constructors, accessor methods, mutator methods, and helper methods. This unit also covers accessibility and the different categories of methods from static and non-static to void and non-void.

Unit 5: Arrays, ArrayLists, and 2D Arrays

Unit 5 introduces 3 different data structures used to store data in Java: the array, ArrayList, and 2D array, and the syntax and traversal methods for the most common algorithms for processing data.

AP COMPUTER SCIENCE A

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Unit 6: Inheritance

Unit 6 takes a comprehensive look at two relationships between classes in Java: inheritance and composition. Topics covered in depth are superclasses and subclasses, constructors of the subclasses, overriding methods, composition, the Object class, and polymorphism.

Unit 7: Searching, Sorting, and Recursion

This unit covers different search algorithms, the selection sort and insertion sort, Big O, recursion, recursive search, and sort algorithms.

Course Expectations:

- Submit homework before the deadline.
- 2-5 Quizzes per quarter
- 1-2 test per quarter
- 3-4 assignments per week
- Plagiarism is strictly prohibited.

Semester Grading:

- | | |
|-----------------------|-----|
| • Homework | 20% |
| • Class Participation | 10% |
| • project | 10% |
| • Quizzes | 30% |
| • Quarter Exam | 30% |

AP COMPUTER SCIENCE PRINCIPLES

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Overview:

APCSP is a broad computer science class that can serve as a first computer science course for students, even those without programming and design backgrounds. Students are exposed to several media and language contexts that are not deeply utilized in other computer science courses at MV. For instance, students may manipulate colour and sound files, work with emotional or aesthetic input to embellish literal input, program graphing calculators, and mine and filter data from scientific probes or the Internet. Choice is added so that students can select contexts and applications that fit their interests. Much work is collaborative. This course differs from other computer science courses offered in our district, because there is substantial time spent away from detailed code; students get a bigger-picture exposure to the design, implementation, regulation, and marketing of digital and hardware tools that meet human needs and shape the evolution of our culture. Students spend significant amounts of time discussing, framing the development or study of a product, and exploring history surrounding business, legislative, and product development practices, that helps them build a much larger perspective about computer science that might otherwise be limited largely to programming.

Here's a great video from the College Board about APCSP: <https://youtu.be/S1vFrz4NETg>

Prerequisites: None, but preference will be given to Juniors.

Q: Why is APCSP being offered?

A: Computer science is so much more than programming! Digital technology (and other technology) is central to who we are, how we make decisions, and how modern careers work. This course is ideal for all students to learn about computer science in a broad way with clear connections to their world.

Q: How does this differ from Java Programming and AP CSA?

A: Java Programming is primarily a programming class using the Java language. APCSP is a broad computer science course teaching more than programming. APCSP does not use only Java, and syntax (how a language is written to have meaning) is not a heavy part of APCSP. AP CSA is an AP Programming course using the Java language, extending what is used in Java Programming

Q: Can I sign up without any programming experience?

A: Please do! There will be a lot of supports built into class for people with no programming experience. We'll have a lot of supports in place for people with no formal design experience, too! EVERYONE will be learning new languages in this course (we rarely use Java), so everyone will have time to learn syntax and advantages/disadvantages of different languages together.

AP COMPUTER SCIENCE PRINCIPLES

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Q: How much homework will be assigned?

A: Expect to spend 30-45 minutes 3-4 times a week on average. There will be reading assignments, paper/product analysis, and some content review assignments, but as much of the course is collaborative, there may not be a lot of homework when collaboration is taking place; most of that work should be done in class. We do not use a textbook – All readings come from the UTeach curriculum on Codio.

Q: What are key topics in the course?

A: Design principles (for understanding how tech works and building our own tech), Abstraction, Data and Information, Global Impact (societal impact, shifts in culture, business, law, security/privacy, etc.), Internet, Programming, Algorithms, Logic.

Course Expectations:

- Submit homework before the deadline.
- 2-5 Quizzes per quarter
- 1-2 test per quarter
- 3-4 assignments per week
- Plagiarism is strictly prohibited.

Semester Grading:

- | | |
|-----------------------|-----|
| • Homework | 20% |
| • Class Participation | 10% |
| • project | 10% |
| • Quizzes | 30% |
| • Quarter Exam | 30% |

AP SEMINAR

(1 ELECTIVE CREDIT)

Knights Difficulty: 

Course Basics: AP Seminar is an interdisciplinary course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives.

Expectations: During the course you'll investigate a wide variety of real-world issues. Unlike other AP courses, AP Seminar doesn't just conclude with a traditional AP Exam — you'll also complete performance tasks throughout the year, like a collaborative team project and research-based essay.

Here's a recap of the skills you'll learn in AP Seminar:

- Reading and analyzing articles, studies, and other texts.
- Gathering and combining information from sources.
- Viewing an issue from multiple perspectives.
- Crafting, communicating and defending arguments based on evidence.

Eligibility: There are no prerequisites for this course. Students typically take AP Seminar in grade 10 or 11 with recommendation from their English teacher.

AP Score Breakdown:

Team Project and Presentation

20% of Score

Individual Research Based Essay and Presentation

35% of Score

End of Course Exam

4 questions | 2 hrs | 45% of Score

AP RESEARCH

(1 ELECTIVE CREDIT)

Knights Difficulty: 

Course Basics: This is a required course for the AP Capstone diploma. Build on what you learned in AP Seminar to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, you will design, plan, and conduct a year-long research based investigation to address a research question. This course is only available to students who have completed AP Seminar

Expectations: During the course you'll investigate a wide variety of real-world issues. Unlike other AP courses, AP Research does NOT include a traditional AP Exam — you will complete one performance task throughout the year. Students will continue to develop the skills learned in AP Seminar.

In the classroom and independently (while possibly consulting any expert advisers), students learn and employ research and inquiry methods to develop, manage, and conduct an in-depth investigation of an area of personal interest, culminating in an academic paper of 4,000–5,000 words that includes the following elements:

- Introduction and Literature Review
- Method, Process, or Approach
- Results, Product, or Findings
- Discussion, Analysis, and/or Evaluation
- Conclusion and Future Directions
- Bibliography

Eligibility: Only available to students who have taken AP Seminar

AP Score Breakdown:

Research Paper – 75% of AP Score

Presentation and Oral Defense questions—25%

ENGLISH 11

(1 ENGLISH CREDIT)

Knights Difficulty: 

Course Description

Throughout the course, students will study a variety of novels, short stories, plays, and poems to enhance their ability in reading, writing, speaking, and listening. Students will demonstrate learning through individual work, group projects, and classroom discussions. Due to the high level of rigor, students must be prepared for additional reading and writing outside the classroom. To build a foundation for college and career readiness, students must read and write across increasingly challenging literary and informational texts.

ENGLISH 12

(1 ENGLISH CREDIT)

Knights Difficulty: 

Course Description

The concepts learned in English 11 will continue on in English 12. Throughout the course, students will study a variety of novels, short stories, plays, and poems to enhance their ability in reading, writing, speaking, and listening. Students will demonstrate learning through individual work, group projects, and classroom discussions. Due to the high level of rigor, students must be prepared for additional reading and writing outside the classroom. To build a foundation for college and career readiness, students must read and write across increasingly challenging literary and informational texts.

ACCOUNTING

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Overview:

This course is designed to familiarize and develop in the students a thorough understanding of the accounting concepts, principles and procedures involved in the analysis and recording of business transactions and the preparation of financial statements for service and trading concerns. Accounting concepts and techniques underlying income determination and valuation of current and long-term assets, together with their related internal control measures and their presentation in the financial statements are emphasized.

Goals & Objectives:

- To develop the students' understanding of economic activities and what assumptions and measurement techniques are used to convert the economic activities into accounting information which is relevant for making economic decisions. (UNDERSTAND)
- To describe the accounting rules for recording such information. (RECORD)
- To explain the financial statements presentation and disclosure requirements for such information. (PRESENT)
- To explain the methods of analyzing such information. (ANALYSE)
- To enable students to learn personal applications of accounting, such as: budgeting, investing, taxes, and banking. (APPLICATION)

Prior Knowledge:

- Basic math skills.
- Basic Excel Skills
- Ability to link theoretical concepts to practical situations

ACCOUNTING

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Content Outline:

- Introduction to Accounting
- The Recording Process
- Adjusting the Accounts
- Completing the Accounting Cycle
- Accounting for Merchandising Operations
- Accounting for Inventories
- Accounting for Plant Assets and Intangible
- Intangible Assets
- Current Liabilities

Generative Topics/ Essential Questions

The class is primarily a combination of lectures, individual and group work. All lectures are followed by solutions of practical questions and case studies. In class we will present problems on the board, showing multiple ways to get an answer and discussing any mistakes that arise.

What must be given consideration to in this class?

- Conceptual understanding- The clarity of why and how things are grouped and categorized
- Organization- What goes into financial statements and most importantly, why?
- Accuracy- arithmetical accuracy is crucial as financial statements are used for critical decision making.
- Business Ethics- accuracy in financial reporting and avoiding misleading data.

PAKISTAN STUDIES

(1 SOCIAL STUDIES CREDIT)

Knights Difficulty: 

Subject overview

Pakistan Studies is a course that tries to increase students' understanding of the country's history, culture, and geography as well as to instill patriotism in students' hearts so that they can grow up to be responsible members of society.

The following are the main goals of teaching Pakistan Studies. To outline Pakistan's key characteristics, including its geography, economics, level of human development, and current national, international, and international issues. Knowledge of society, democratic citizenship, diversity of culture, and religious harmony.

Up until 1999, students will be able to learn about the Mughal Empire. Students investigate various historical interpretations and acquire a knowledge of historical topics and skills via their studies. This considers Pakistan's topography as well as its current environmental and development challenges.

Grades

Grades are broken down into categories and their rubric values are as follows:

- Homework / Classwork

20 %

- Projects

20 %

- Participation

20 %

- Assessments and Quizzes

40%

Homework / Classwork: Students will be given some sort of task daily to interact with the material. Students need to pay attention to due dates; late work will be accepted with penalties. If a student is absent, they are still required to do the work, however, they may be given additional time to complete it if necessary (must be arranged by the teacher)

Assessments / Quizzes: Assessments (tests/quizzes) will be given periodically to gauge student understanding.

ALGEBRA 1

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Prerequisites: Mathematics 3 (Grade 8 Math)

Level of Difficulty: The course is difficult if the students do not have a sound knowledge of Grade 8 Math, otherwise it is a smooth transition into Algebra (high school level 1)

Description:

Algebra 1 is the first math course in high school math. This course provides traditional math instruction with frequent practice. It includes options for students to communicate and explore content in ways that ensures smooth transitions from concrete to abstract. Throughout this course, students will develop learning strategies, critical thinking skills and problem-solving technique to prepare for future math courses and college exams.

The following topics will be covered during the year.

- Patterns in Algebra
- Operations in Algebra
- Properties of Real Numbers
- Proportional Reasoning and Statistics
- Solving Linear Equations
- Graphing Linear Equations and Functions
- Writing Linear Equations in Slope-Intercept and Point-Slope Form
- Solving and Graphing Linear Inequalities
- Solving Systems of Linear Equations and Inequalities
- Exponents and Properties of Exponents
- Solving Quadratic Equations
- Polynomials and Factoring
- Quadratic Functions

ALGEBRA 1

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Objectives:

At the completion of course the students are expected to:

- Interpret the meaning of variables and variable expressions.
- Solve linear equations with variable. Apply the concept of absolute value to simple equations.
- Graph a linear function by plotting points, using intercepts, and using the slope and y- intercept.
- Sketch the region defined by a linear inequality.
- Derive the equation of a line when given a variety of parameters for that line.
- Solve inequalities with variable.
- Solve systems of linear equations by graphing and substitution / elimination methods.
- Solve systems of linear inequalities by graphing.
- Perform basic operations on polynomials.
- Factor and simplify quadratic expressions.
- Solve quadratic equations using factoring.
- Solve quadratic equations using Quadratic Formula.

Evaluation:

Student learning will be assessed in a variety of formative and summative assessments. Formative assessment is based on observation, class discussions, homework, and class work. Summative assessment is given in a combination of quizzes, tests and individual, paired and group projects. Summative assessments are free response requiring students to demonstrate their understanding of the concepts presented.

Teaching Resources:

Textbook: Holt, Rinehart, Winston 2004

Online Programs:

Delta Math

Khan Academy

IXL

Quizizz

Desmos

ALGEBRA 2

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Description of the course:

Algebra 2 is a requirement for High School graduation and is a college/university preparatory course. This course introduces students to key concepts and theories that provide a foundation for further study in mathematics (College algebra, Pre-Calculus, calculus and beyond) and increases students' mathematical literacy, problem solving and critical thinking skills.

The students will need TI-89 Graphing Calculators for this course. Students can use online websites for Graphing techniques.

<https://www.desmos.com/calculator>

Prerequisites: Algebra1 and Geometry / Trigonometry

Homework and assessments

Homework must be submitted on the due date. What I expect is that, when a student is regular in class and actively participates in the classroom session, then he/ she will find no problem in completing the work that has been assigned. Late or incomplete homework will not be entertained. You can expect at least one quiz for each chapter and a chapter test at the end of the topic.

A project / journal entry is also assigned in every quarter. It can be an individual one or a group project.

Evaluation:

Student learning is assessed in a variety of formative and summative assessments. Formative assessment is based on observation, class discussions, homework, and class work. Summative assessment is given in a combination of quizzes, tests and individual, paired and group projects. Summative assessments are free response requiring students to demonstrate their understanding of the concepts presented.

ALGEBRA 2

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Course specific learning outcome:

Students will be able to

- Identify linear equations and linear relationships between variable.
- Solve application problems using linear functions.
- Evaluate expressions by using the order of operations.
- Evaluate functions using function notation.
- Identify the transformation(s) from one function to another Solve linear equations and inequalities Solve system of Equations.
- Graph linear equations in two variables using different methods.
- Use linear programming to find the maximum or minimum value of an objective function.
- Define and Graph the Quadratic functions.
- Solve and Graph the quadratic inequality in one and two variables. Graph Exponential functions Solve Logarithmic functions.
- Perform operations on polynomials.
- Factor polynomials
- Solve higher degree equations by factoring.
- Find the real zeros of polynomial functions and state the multiplicity of each of the polynomial.
- Simplify and perform operations with rational expressions.
- Simplify and perform operations with radicals.
- Perform operations with complex numbers.
- Evaluate trigonometric functions of an angle.
- Measure angles in rotation and in degrees.
- Graph trigonometric function.
- Find the amplitude and period of a trigonometric function from its equation.
- Use the fundamental identities to prove other identities.
- Graph the sine, cosine, and tangent functions and their transformations.
- Apply the sum and difference identities.
- Verify Identities with double angles.
- Apply double-angle identities. Apply half-angle identities.

Geometry & Trigonometry

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Description of the course:

Geometry is a requirement for High School graduation and is a college/university preparatory course. Geometry is the area of mathematics concerning with points, lines, triangles, circles, transformation, angles, shapes and surfaces. The course focuses on solving equations in real life situations through manipulation and graphing. It enables the students to analyze and solve right triangle and trigonometric functions within contextual situations. Please explore <http://go.hrw.com/gopages/ma.html> or go.hrw.com using the keyword MG1 Parent Guide.

Pre-requisites: Algebra

Textbook:

Geometry by Holt, Rinehart, Winston 2004

Algebra 2 by Holt, Rinehart, Winston 2003 Trigonometry by Prentice Hall

Schaum's Outlines Trigonometry- 3rd edition

Course specific learning outcome:

At the completion of course, the students will be expected to:

- Know about the basic elements of geometry, including how to use inductive reasoning, how to measure segments and angles, how to bisect a segment or angle, and the relationships among special pairs of angles.
- Investigate the relationships between lines and angles on a plane and in space.
- Classify and prove geometric congruency with given sides and angles.
- Investigate the properties of bisectors, medians, altitudes, and midsegment of a triangle and how those properties relate to triangles.

Develop formulas for the areas of triangles, parallelograms, and trapezoids.

- Know about surface area and volume of solids, including how to calculate and use surface area and volume of various solids in real-life situations.
- Classify regular polyhedrons.
- Find the surface area and volume for prisms, cylinders, pyramids, cones, and spheres given the formula.

Geometry & Trigonometry

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

- Learn about transformations, including the three ways to describe motion of geometric figures in the plane and how to use transformations in real-life situations.
- Develop formulas about areas of polygons and circles, including how to find angle measures and areas of polygons, how to compare perimeters and areas of similar figures, and how to find the circumference and area of a circle.
- Identify the relationships between the measures of intercepted arcs and inscribed or central angles.
- Develop and use the equation of a circle.
- Solving real-world problems using trigonometric ratios and properties of congruent and similar figures
- Identify trigonometric relationships (sine, cosine, & tangent) using right triangles, expressing the relationships as fractions or decimals.
- Solve problems using the properties of special right triangles.
- Find the angle measure in degrees and in radians using a calculator and with the help of unit circle.
- Apply Law of Sines and Cosines in Real world Applications.
- Graph the trigonometric graphs and their transformations.
- Evaluate trigonometric expressions involving inverses.
- Evaluate and simplify expressions by using double-angle and half-angle identities.

Class expectations

General conduct

Formal and professional conduct is expected from you at all times in the classroom. You are required to be respectful, kind and should always be helpful with your classmates. Any disruptive or rude behavior demonstrated by you towards anyone is unacceptable and will result in your immediate discharge from the zoom classroom.

Geometry & Trigonometry

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Punctuality

Students are required to attend their classes regularly and should be on time for their classes. Any student who is unable to attend the class, must inform the teacher prior to the day of absence.

Homework and assessments

Homework is given on daily basis. What I expect is that, when a student is regular in class and actively participates in the classroom session, then he/she will find no problem in completing the work that has been assigned. Late or incomplete homework are not entertained. You can expect at least one quiz for each chapter and a chapter test at the end of the topic.

A project / journal entry is also assigned in every quarter. It can be an individual one or a group project.

Cheating/ plagiarism:

Cheating defined:

- Copying, in part or in whole, from another's test or other evaluation instrument Or obtaining answers from another person during the test.
- Submitting work previously presented in another course.
- Talking or consulting during the test with another person
- Giving / providing in any way, information to other students that allows the student an undeserved advantage on an exam or quiz, such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class.

If case of any incident mentioned above, students will be given a zero.

Evaluation:

Student learning is assessed in a variety of formative and summative assessments. Formative assessment is based on observation, class discussions, homework, and class work. Summative assessment is given in a combination of quizzes, tests and individual, paired and group projects. Summative assessments are free response requiring students to demonstrate their understanding of the concepts presented.

PRE-CALCULUS

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Prerequisites: Students should have completed Algebra II/Geometry.

Course Description:

Pre-Calculus is a college/university preparatory course. This course is designed primarily for students who intend to take Calculus, whether in their senior year of high school or when they arrive at university. It will provide an in-depth study of all topics essential to the study of AP Calculus and in college mathematics courses required for any major area of study.

Topics include fundamental concepts of Algebra, functions, graphs of polynomial, rational, inverse, exponential, logarithmic, trigonometric functions, systems of equations and inequalities, binomial theorem, complex numbers, conic sections, piecewise defined functions.

Course Objectives:

Upon successful completion of the course students are expected to:

- Apply fundamental algebra skills.
- Understand the definition of functions, their graphs, and operations, as well as function transformations.
- Identify different types of functions, analyze their behavior, and utilize their properties to solve equations and real-world problems.
- Define trigonometric functions and comprehend right triangle trigonometry and the unit circle.
- Apply trigonometric function identities.
- Identify conic sections and their geometric characteristics.
- Demonstrate self-discipline and dependability through consistent daily work.
- Develop a foundation in limits to prepare for calculus.

Evaluation:

The students are assessed through lesson quiz, homework, test, class discussion, activities, and projects.

Textbook: Michael Sullivan. Precalculus. 10th Edition. Pearson. 2015

PRE-CALCULUS

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Online Resources:

deltamath.com

ixl.com

desmos.com

quizizz.com

Graphing Calculator:

Owning a graphing calculator is not mandatory. You may access any of the free graphing calculators available online or you may install an application on your iPad. Although questions from tests and final exam will be designed to be answered only by using a scientific calculator. Graphing calculators will not be allowed during tests.

COLLEGE ALGEBRA

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Course Description:

College Algebra is the introductory course in algebra to pursue college level studies in business calculus. The course reviews the fundamental concepts of algebra such as set operations, factoring, linear and quadratic equations, exponential and logarithmic functions, complex numbers, polynomials, radical as well as rational expressions, rectangular coordinates and inequalities. The students will need TI-89 Graphing Calculators for this course or they can also use IPAD calculators <https://student.desmos.com> for class assignments, but these are not allowed during a test or a quiz.

PRE-REQUISITES: Algebra 2

COURSE OVERVIEW:

At the completion of this course, a student should be able to

1. Solve linear equations and set up and solve word problems involving age, motion, solution/mixture, and geometric figures.
2. Solve Quadratic Equations in one variable by the method of factoring, completing the square and the quadratic formula.
3. Solve a literal equation for specified variables.
4. Find the distance between two points in the Cartesian plane.
5. Solve radical equations, fractional equations, and equations of quadratic form.
6. Recognize the equation of a straight line, graph the equation of a straight line, find the slope and intercepts of a line, know the relationship between the slopes of parallel and perpendicular lines, and be able to determine the equation of a line from information such as two points on the line, or one point on the line and the slope of the line.
7. Know the definition of a function, determine the domain and range of a function, evaluate expressions involving functional notation, simplify expressions involving the algebra of functions, graph functions by plotting points, know the definition of inverse functions, and given a function find its inverse.

COLLEGE ALGEBRA

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

8. Graph linear functions and quadratic functions, piece-wise defined functions and absolute value functions.
9. Solve linear inequalities and linear equations involving absolute value, state the solution in interval notation and graph the solution.
10. Graph the solution of a linear inequality in two variables.
11. Understand vertical and horizontal shifts of graphs and stretching, shrinking, and reflection of graphs of functions.
12. Solve non-linear (quadratic and rational) inequalities, state the solution in interval notation and graph the solution.
13. Solve systems of equations in three variables by algebraic techniques.
14. Solve systems of linear inequalities by graphing.
where the center may be at any point in the plane.
15. Understand the inverse relationship between the exponential and logarithmic equations

Homework and assessments

Late or incomplete homework are not entertained. You can expect at least one quiz for each chapter and a chapter test at the end of the topic.

A project / journal entry is also assigned in every quarter. It can be an individual one or a group project.

Evaluation:

Student learning is assessed in a variety of formative and summative assessments. Formative assessment is based on observation, class discussions, homework, and class work. Summative assessment is given in a combination of quizzes, tests and individual, paired and group projects. Summative assessments are free response requiring students to demonstrate their understanding of the concepts presented.

CALCULUS

(1 MATHEMATICS CREDIT)

Knights Difficulty: 

Pre-Requisites: The student should have completed Pre-Calculus.

Course Description:

Calculus is a branch of mathematics that deals with the study of rates of change and how things change over time. It involves the study of functions, limits, derivatives, integrals, and infinite series, among other mathematical concepts.

Differential calculus deals with the study of instantaneous rates of change, while integral calculus deals with the study of accumulation, such as finding the area under a curve.

Calculus is widely used in many fields, including physics, engineering, economics, finance and statistics, and is a powerful tool for solving real-world problems and modeling complex systems.

CHEMISTRY

(1 SCIENCE CREDIT)

Knights Difficulty: 

Course Description:

This is a basic course about the concepts of fundamental chemistry. Students will be introduced to the properties and states of matter, measurement, atomic structure, electronic configuration, the periodic table, chemical reactions and equations, stoichiometry, bonding, gas laws, acids, and bases.

UNIT	TOPIC
1.	Introduction to Chemistry
2.	Matter & change
3.	Measurements, calculations and dimensional Analysis
4.	The structure of atoms
5.	Electron configuration
6.	The periodic table and Periodic trends
7.	Chemical Bonding : Ionic and covalent bonding
8.	Chemical reactions and balancing equations
9.	Stoichiometry
10.	Behaviour of gases
11.	Acids and bases
12.	Thermodynamics

PHYSICS

(1 SCIENCE CREDIT)

Knights Difficulty: 

Introduction

Physics is the study of the interactions of matter and energy. Basically, we study how and why things

work! Physics has several branches, which include:

- Mechanics – the study of the motion of material objects.
- Electromagnetism – the study of electricity, magnetism, and electromagnetic fields.
- Thermodynamics – the study of heat and particle behavior
- Relativity – the study of how particles move at any speed
- Quantum mechanics – the study of the behavior of particles at atomic levels.

In this course, we will complete the following units.

Unit 1: Measurement and Experimentation

Chapter 1 - Reading measurements on different devices, uncertainty, units in the SI system, and dimensional analysis.

Unit 2: Kinematics

Chapter 2 - Motion in one dimension, which includes position, velocity, and acceleration, kinematics equations, motion graphs, and freely falling objects.

Unit 3: Dynamics

Chapter 4 - Mass, Newton's three laws of motion, weight, free-body diagrams, forces due to friction.

Unit 4: Work and Energy

Chapter 6 - Work, the work-energy theorem, kinetic energy, gravitational potential energy, conservative forces, conservation of mechanical energy, conservation of energy.

Unit 5: Linear Momentum

Chapter 7 - Momentum, impulse, conservation of momentum, elastic and inelastic collisions.

Unit 6: Waves and Wave Motion

Chapter 11 - Simple harmonic motion, mass-spring systems, pendulums, wave motion, reflection, refraction, and diffraction.

Unit 7: Sound

Chapter 12 - Properties of sound waves, sound intensity, standing waves and harmonics, the Doppler effect, and shock waves.

PHYSICS

(1 SCIENCE CREDIT)

Knights Difficulty: 

Unit 8: Light, Optics, and Optical Instruments

Chapters 23–25 - Wave behavior of light, law of reflection, refraction, Snell's law, reflection in spherical mirrors, refraction in curved lenses, microscopes, telescopes, and other optical instruments.

Unit 9: Basic Electricity

Chapters 18–20 - Electric charge, Coulomb's law, electric fields, electric potential, Ohm's law, circuits with resistors, Kirchhoff's laws.

Pre-requisite

Students must be concurrently enrolled in Algebra 2.

Student Evaluation

Quarter Grade Allocation	Semester Grade Allocation
15% Problem Solving, Homework	40% First Semester
25% Laboratory Reports	10% First Semester Midterm Exam
60% Summative Assessments and Quizzes –	40% Second Semester
may include tests or projects	10% Second Semester Final Exam

Work Load Homework assignments will be one to two times per week. Most assignments will take one-half to one hour to complete. Doing the homework is critical, as your involvement in the work helps to cement the concepts.

Laboratory reports follow a required format. At first, labs will be guided, but over the course of the year, students will have to decide what needs to happen. Labs are written assignments and carry a large weight in the class

Unit tests will be given each time a unit is completed. Tests are designed for students to show mastery of the subject, and are graded on the standard KAS scale. There are no curves on tests, so students must come well prepared.

ENVIRONMENTAL SCIENCE

(1 SCIENCE CREDIT)

Knights Difficulty: 

A student enrolled in this course will conduct in depth scientific studies of ecosystems, population dynamics, resource management, and the environmental consequences of natural and anthropogenic processes. He / She will formulate, design and carry out laboratory and field investigations. Students will exit the course with essential tools for understanding the complexities of national and global environmental systems. Hands on activities and laboratory experiments are included. It embraces a wide variety of topics from different areas of study including biology, chemistry, earth science, social sciences and politics.

Course Competencies/ Learning Objectives

Students who successfully complete Environmental Science will be proficient or better in the following areas:

- Describe the formation of the Earth and tectonic processes.
- Explain the mechanisms of the theory of evolution;
- Describe interactions and relationships in an ecosystem;
- Describe how ecosystems change in response to natural and human disturbances;
- Describe the effects of limiting factors on population dynamics and potential species extinction;
- Explain the significance and contribution of water as a resource to living things and the shaping of the land;
- Explain and analyze how human-made systems impact the management and distribution of natural resources;
- Demonstrate that different ways of obtaining, transforming, and distributing energy have different environmental consequences;
- Analyze the significance of biological diversity as an indicator of a healthy ecosystem.

ENVIRONMENTAL SCIENCE

(1 SCIENCE CREDIT)

Knights Difficulty: 

Grades: Grades are broken down into categories and their rubric values are as follows:

Homework / Classwork / Labs / projects

30 %

Participation

10 %

Assessments

60%

Homework / Classwork: Students will be given some sort of task on a daily basis to interact with the material. Students need to pay attention to due dates; late work will be accepted with penalties. If a student is absent, they are still required to do the work, however, they may be given additional time to complete if necessary (must be arranged by the teacher)

Labs: this course will require students to participate in labs, complete lab analysis, and design lab experiments. Many labs will be online, but there may be some labs that can be done at home with common household items. Labs are significant portion of your grade, please make every effort to complete the work on time.

Assessments / Quizzes: Assessments (tests / quizzes) will be given periodically to gauge student understanding. Use of notes, Google, or any other external resources is prohibited unless instructor says otherwise.

Academic Integrity Expectations: For all assignments, unless stipulated otherwise by your teacher, your responses must be in your own words (not cut/pasted), even when permitted to collaborate with others. Appropriate citations must be used for all information gathered from other sources. Cheating on any assignment or assignment or assessment is not tolerated and will receive a zero on the assignment and will be referred to the administration. Cheating includes, but is not limited to, plagiarism, copying another student's work, allowing another student to copy work, or having extra browser tabs open during online testing. Recurring cheating may result in failing the class, removal from class, and greater academic repercussions.

FRENCH 1

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course description/objectives:

This course meets the requirements/needs of those students who are enrolled in a MS French program and HS students who are starting their first year of language. Students develop basic communication skills of listening, speaking, reading, writing and culture on topics of self, school, and community. Basic grammatical structures are introduced in thematic form, with a growing awareness and appreciation of French culture. The IPAD is used for digital delivery of text, internet research and recordings.

The course meets the AERO/ACTFL Standards of Communication, Comprehension, Language control, Vocabulary use and Cultural awareness at the Novice/Beginner Range.

Classroom Expectations: Daily attendance, punctuality and discipline are mandatory to facilitate learning. To maximize our learning environment please come with a positive attitude and a willingness to respect yourself, your classmates, and your teacher. Class dynamics reflect our teaching learning ambiance. Soyez poli et attentif et tenez-vous bien en classe !

Academic Integrity: Please read the KAS Academic Honesty Policy in the Student Handbook on Cheating, Plagiarism, Absences and tardies. More will be discussed in class regarding projects, homework collaboration, class assignments. Soyez préparé, diligent, ponctuel et arrivez à l'heure !

Text: Discovering French Bleu

Textbook, Activity book/IPAD: {listening, speaking, writing, audio, video, culture activities} Supplemental material includes magazines Allons-y and easy readers.

Units 1-7: Communication and Comprehension in the present tense based on thematic vocabulary and basic grammatical structures. Regular oral and written practice on topics of personal, school and community interest reinforce basic content and skill.

Cultural awareness and appreciation of the Francophone World is supplemented with projects, theme/culture based digital presentations and skits.

Assessment: Grades are posted on Plus Portals.

Discovering French Bleu Testing and Assessment, Lesson Quizzes, Unit Tests, Composite Semester Exams.

FRENCH 1

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Assessment: Interpretive/Interpersonal/Presentational

Oral performance-- based on regular informal in-class participation along with interpersonal speaking assessments and oral presentations on theme-based vocabulary and grammar and class projects. Grading rubric of content, fluency and comprehension explained in class.

Written performance--based on in class exercises and activities, dialogs, letters, interpersonal writing assignments and Standardized quiz/tests.

Reading and listening performance—based on both informal [comprehension and vocabulary quizzes] and formal [multiple- choice passages and free response sections] assessments given regularly.

Grading:

Tests /Quizzes/Projects	40%
Class Presentations/Activities/Participation	30%
Assignments/Workbook/Journal	30%

Semester Oral/Written Exams make 10-20% of Semester Grade.

FRENCH 2

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course description/Objectives:

This course meets the requirements/needs of those students who have successfully passed one year of French study at the HS or 1/2 years at the MS level.

Primary focus is on communication and articulation in both the oral and written expression. Students continue to work on their listening, speaking, reading, writing and culture skills.

This course meets the AERO/ACTFL Standards of Communication, Comprehension, Language control, Vocabulary use and Cultural awareness at the Novice-Intermediate Learner Range.

The IPAD is used for digital delivery of text, internet research and recordings.

Classroom Expectations: Daily attendance, punctuality and discipline are mandatory to facilitate learning. To maximize our learning environment please come with a positive attitude and a willingness to respect yourself, your classmates, and your teacher. Class dynamics reflect our teaching learning ambiance. Soyez poli et attentif et tenez-vous bien en classe !

Academic Integrity: Please read the KAS Academic Honesty Policy in the Student Handbook on Cheating, Plagiarism, Absences and tardies. More will be discussed in class regarding projects, homework collaboration, class assignments. Soyez préparé, diligent, ponctuel et arrivez à l'heure!

Text: Discovering French Blanc.

Text+book [IPad] Activity book: {listening, speaking, writing, audio, video, culture activities}. Supplemental material includes magazines Bonjour and easy readers.

UNITS 1-7: Communication and Comprehension in the present and past tense based on Thematic Vocabulary and advanced grammatical structures.

Students reinforce their basic content and knowledge with regular practice of varied topics of Personal, School and Community interest.

Cultural awareness and appreciation of the Francophone World is supplemented with projects, theme/culture-based presentations, skits and reading passages.

ASSESSMENT: Grades are posted on Plus Portals.

FRENCH 2

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Discovering French Blanc Testing and Assessment, Lesson Quizzes, Unit Tests, Composite Semester Exams.

Assessment: Interpretive/Interpersonal/Presentational

Oral performance-- based on regular informal in-class participation along with interpersonal speaking assessments and oral presentations on theme-based vocabulary and grammar and class projects

Written performance--based on in class summaries, dialogs, letters and interpersonal writing assignments and Standardized quiz/tests.

Reading and listening performance—based on both informal [comprehension and vocabulary quizzes] and formal [multiple- choice passages and free response sections] assessments given regularly.

Grading:

Tests /Quizzes/Projects	40%
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Class Presentations/Participation	35%
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Assignments/Workbook/Journal	25%
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Semester Oral/Written Exams make 10-20% of Semester Grade.

FRENCH 3

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course description/objectives :

Students at the French 3 level need to have completed 2 years of French study. Primary focus of this course is on continued Communication and Comprehension. Strong Language control is reinforced with introduction of complex grammatical structures and time frames. Speaking, reading, and writing skills require usage of varied vocabulary and idiomatic expressions. French and Francophone Culture is reinforced with selected readings and cultural themes. Students are required to build a strong reading competence as French Literature [Le Petit Prince] is introduced in this level. The IPAD is used for digital delivery of text, internet research and recordings.

This course meets the AERO/ACTFL Standards of Communication, Comprehension, Language control, Vocabulary use and Cultural awareness at the Intermediate- Advanced Learner Range.

Classroom Expectations: Daily attendance, punctuality and discipline are mandatory to facilitate learning. To maximize our learning environment please come with a positive attitude and a willingness to respect yourself, your classmates, and your teacher. Class dynamics reflect our teaching learning ambiance. Soyez poli et attentif et tenez-vous bien en classe !

Academic Integrity: Please read the KAS Academic Honesty Policy in the Student Handbook on Cheating, Plagiarism, Absences and tardies. More will be discussed in class regarding projects, homework collaboration, class assignments. Soyez préparé, diligent, ponctuel et arrivez à l'heure!

Text: discovering french rouge

Textbook, Activity book: {listening, speaking, writing, audio, video, culture activities}.

Supplemental matériel includes magazine ÇaVa. Le Petit Prince livre/Cd-rom

UNITS : Reprise 1- 4/5. Communication and Comprehension in the present, past, future, subjunctive tenses on themes of self, nature, health, domestic chores, shopping, traveling, culture etc. Emphasis is on creative expression; Reading and use of more complex structures and extended thematic vocabulary in both oral and written expression is emphasized. Students demonstrate their knowledge of French culture, practices and products in speech and writing [skits, digital presentations, videos]

Petit Prince is an intro to French Literature where students read, discuss, understand and present elements of a novel [characters, plot, themes and symbols]

FRENCH 3

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Assessment: Grades are posted on Plus Portals;

Discovering French Rouge Testing and Assessment, Lesson Quizzes, Unit Tests, Composite Semester Exams. Petit prince quiz/test

Assessment: Interpretive/Interpersonal/Presentational

Oral performance-- based on regular informal in-class participation along with interpersonal speaking assessments and oral presentations on theme-based vocabulary and grammar and class projects

Written performance--based on in class summaries, dialogs, letters and interpersonal writing assignments and Standardized quiz/tests.

Reading and listening performance—based on both informal [comprehension and vocabulary quizzes] and formal [multiple- choice passages and free response sections] assessments given regularly.

GRADING:

Tests /Quizzes/Projects	50%
Class Presentations/Participation	25%
Assignments/Workbook/Journal	25%

Semester Oral/Written Exams make 10-20% of Semester Grade.

FRENCH 4

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course description/ objectives :

This is an Honors course, designed for those students who have completed successfully three years of French study and are prepared to meet a rigorous Advanced level program. The course also benefits those students whose choice is to take AP French Language and Culture in the subsequent year. The IPAD is used for digital delivery of text, Internet research and recordings. The French 4 programs emphasis is on linguistic competence in all areas: listening, speaking, reading, writing and culture. Students are exposed to a variety of authentic resources: texts, books, multimedia materials to practice their communication and comprehension skills in both speech and writing. Students also demonstrate increased use of grammatical syntax and culturally appropriate vocabulary, idiomatic expressions and non-verbal behaviors. Cultural awareness and appreciation is reinforced with various genres: literature, plays, fiction and non fiction texts, media etc. This course meets the AERO/ACTFL Standards of Communication, Comprehension, Language control, Vocabulary use and Cultural awareness at the Advanced Learner Range.

Classroom Expectations: Daily attendance, punctuality and discipline are mandatory in order to facilitate learning. In order to maximize our learning environment please come with a positive attitude and a willingness to respect yourself, your classmates and your teacher. Class dynamics reflect our teaching learning ambiance. Soyez poli et attentif et tenez-vous bien en classe!

Academic Integrity: Please read the KAS Academic Honesty Policy in the Student Handbook on Cheating, Plagiarism, Absences and tardies. More will be discussed in class regarding projects, homework collaboration, class assignments. Soyez préparé, diligent, ponctuel et arrivez à l'heure!

TEXT: IPAD

En Parlant Ed 2014

Triangles [lectures] Ed. 2012

Reprise[culture/grammaire]/Practice booklet Ed 2014

FRENCH 4

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Students practice their comprehension; infer and interpret meaning and content from various literary/cultural genres integrating language and culture.

Expression orale provides a broad range of communicative activities and conversational topics based on language functions and thematic vocabulary.

Expression écrite presents a solid self – explanatory review and expansion of French grammar [past/present, future, subjunctive] using a problem-solving work text format.

Listening, speaking, reading and writing skills are reinforced with more advanced vocabulary and idiomatic expressions introduced in the Grammar/Vocabulary/Lecture sections of APrenons, Triangles and En Parlant. Carmen livre/opéra [+film].

Novels: Maigret [séries], Le Petit Nicolas [+film]

Assessment: Interpretive/Interpersonal/Presentational

Oral performance-- based on regular informal in-class participation along with interpersonal speaking assessments and oral presentations on novels, theme-based vocabulary and grammar.

Written performance--based on in class summaries, dialogs, compositions, letters and interpersonal writing assignments.

Reading and listening performance—based on both informal [comprehension and vocabulary quizzes] and formal [multiple- choice passages in the format of the AP exam] assessments given regularly.

Grading: Grades are posted on PlusPortals;

Quiz/tests [orale/écrite] Grammar/vocabulary/comprehension	50%
Projects/class presentations/class activities/dialog/exposé	30%
Assignments/journal/homework	20%
Semester Exams: oral/written	10-20% of semester grade

SPANISH 1

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Description

Students begin their introduction to Spanish by focusing on the four key areas of foreign language study: listening, speaking, reading, and writing. The course represents an ideal blend of language learning pedagogy and online learning. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking, and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, become familiar with common vocabulary terms and phrases, comprehend a wide range of grammar patterns, participate in simple conversations, and respond appropriately to basic conversational prompts, analyze, and compare cultural practices, products, and perspectives of various Spanish speaking countries, and take frequent assessments where their language progression can be monitored.

Course length: Two semesters.

Prerequisites: None

Text Book: Realidades 1 and Guided practice Realidades 1

Overall Course Objectives.

The High School Spanish I course helps students:

- Master common vocabulary terms and phrases, including personal contexts such as greetings, family, school, hobbies, and going out
- Comprehend a wide range of grammar patterns, including the conjugation of regular verbs in the present, using reflexive verbs, asking questions, and making comparisons
- Analyze and compare cultural practices, products, and perspectives of Hispanic Countries.
- Participate in simple conversations and respond appropriately to basic conversational prompts
- Generate language incorporating basic vocabulary and grammar patterns
- Read, write, speak, and listen for meaning in basic Spanish
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions.

SPANISH 1

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Assessments

Listening and reading comprehension quizzes verify that students comprehend the main ideas and/or significant details of target language passages or conversations.

Culture comprehension quizzes verify that students have understood important concepts presented in the culture presentations.

MCQ's, fill in the blanks, mastery of the vocabulary words and grammar concepts presented that unit.

Midterm and Semester Exams are comprehensive in nature. Not only do they assess students' knowledge of the language, but they also assess students' ability to produce the language in a communicative way. Midterms and Semester Exams include both oral and written assessments.

Grading

Test, MCQ's, fill in the blanks	30%
Class projects, presentations, dialogs	30%
Quiz	20%
Classwork, class participation	20%

SPANISH 2

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Description

Students continue their study of Spanish by further expanding their knowledge of key vocabulary topics and grammar concepts. Students not only begin to comprehend listening and reading passages more fully, but they also start to express themselves more meaningfully in both speaking and writing. Each unit consists of a new vocabulary theme and grammar concept, reading and listening comprehension activities, speaking, and writing activities, multimedia cultural presentations, and interactive activities and practices which reinforce vocabulary and grammar. There is a strong emphasis on providing context and conversational examples for the language concepts presented in each unit. Students should expect to be actively engaged in their own language learning, understand common vocabulary terms and phrases, use a wide range of grammar patterns in their speaking and writing, participate in conversations and respond appropriately to conversational prompts, analyze, and compare cultural practices, products, and perspectives of various Spanish-speaking countries, and take frequent assessments where their language progression can be monitored. By semester 2, the course is conducted almost entirely in Spanish.

Course length: Two semesters.

Prerequisites: High School Spanish 1

Textbook: Realidades 2 and Guided practice Realidades 2

Overall Course Objectives: The High School Spanish II course helps students:

- Review and expand their study of common vocabulary topics, including professional contexts such as technology, work, shopping, and transportation
- Gain a deeper understanding of a wide range of grammar patterns, including distinguishing between past, present, future, and conditional verb tenses, making comparisons, and incorporating pronouns into speech
- Analyze and compare cultural practices, products, and perspectives of Spanish Speaking countries.
- Participate in expanded conversations and respond appropriately to a variety of conversational prompts

SPANISH 2

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

- Communicate more meaningfully using correct vocabulary and grammatical structures
- Read, write, speak, and listen for meaning in Spanish
- Analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Assessments

Listening and reading comprehension quizzes verify that students comprehend the main ideas and/or significant details of target language passages or conversations.

Culture comprehension quizzes verify that students have understood important concepts presented in the culture presentations.

MCQ's, fill in the blanks, mastery of the vocabulary words and grammar concepts presented that unit.

Midterm and Semester Exams are comprehensive in nature. Not only do they assess students' knowledge of the language, but they also assess students' ability to produce the language in a communicative way. Midterms and Semester Exams include both oral and written assessments.

Grading

Test, MCQ's, fill in the blanks	30%
Class projects, presentations, dialogs	30%
Quiz	20%
Classwork, class participation	20%

SPANISH 3

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Description

The emphasis in Spanish III Pre-AP is on understanding and developing the ability to use correctly, previously learned grammatical concepts, along with new aspects of Spanish grammar, to attain proficiency in Spanish. Students will therefore be able to express themselves both orally and in writing at a more advanced level. Through listening, speaking, reading and writing the target language, students will build additional vocabulary and grow their knowledge of the culture, history, arts, traditions and people of the Spanish speaking world. Literary works by Spanish and Latin-Americans writers will be introduced and students will also be exposed to various forms of art and artists of the Hispanic world. As this is a course that aims at preparing the students for the Spanish IV AP class, the course is conducted almost exclusively in Spanish. Students are required to speak the target language most of the time in class.

Course length: Two semesters.

Prerequisites: High School Spanish I, 2

Textbook: Realidades 3 and Guided practice Realidades 3; Pre-AP Workbooks 2, 3

Online Studyspanish.com

Overall Course Objectives: The High School Spanish 3 course helps students:

- Review and expand their study of common vocabulary topics, such as technology, work, shopping, sports, health, healthy eating and transportation
- Gain a deeper understanding of a wide range of grammar patterns, including distinguishing between past, present, future, and conditional verb tenses, making comparisons, and incorporating pronouns into speech
- Analyze and compare cultural practices, products, and perspectives of Spanish Speaking countries.
- Participate in expanded conversations and respond appropriately to a variety of conversational prompts

SPANISH 3

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

- Communicate more meaningfully using correct vocabulary and grammatical structures
- Read, write, speak, and listen for meaning in Spanish
- Analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Assessments

Listening and reading comprehension quizzes verify that students comprehend the main ideas and/or significant details of target language passages or conversations.

Culture comprehension quizzes verify that students have understood important concepts presented in the culture presentations.

MCQ's, fill in the blanks, mastery of the vocabulary words and grammar concepts presented that unit.

Midterm and Semester Exams are comprehensive in nature. Not only do they assess students' knowledge of the language, but they also assess students' ability to produce the language in a communicative way. Midterms and Semester Exams include both oral and written assessments.

Grading

Test, MCQ's, fill in the blanks	30%
Class projects, presentations, dialogs	30%
Quiz	20%
Homework/Classwork, class participation	20%

SPANISH 4

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

Course Description

This course is for students beginning their third year of Spanish and who have successfully completed Spanish 2. This is the final year of a three-year sequential program. The expectation, on completing the program, is that students have the knowledge and skills necessary to be successful in advanced classes if they wish to continue their study of Spanish. The focus is on continuing to develop linguistic competence through listening, reading, speaking, and writing, and broadening awareness and appreciation of Spanish Cultures. It provides ample opportunities for students to demonstrate proficiency in the three modes of communication (Interpretive, Interpersonal and Presentational) at the Intermediate ~ Advanced level.

The integration of technology and authentic resources is a key feature of the course and iPads are used for digital delivery of text, internet research and recordings. Authentic Resources are used where possible and the textbook is used mainly for sequential vocabulary building, and grammar practice and consolidation. The course meets the World Languages AERO standards for the Intermediate ~ Advanced level.

Course length: Two semesters.

Prerequisites: High School Spanish I, 2,3

Textbook: Realidades 3 and Guided practice Realidades 3; Pre-AP Workbooks 2, 3

Online Studyspanish.com

Overall Course Objectives: The High School Spanish 4 course helps students:

- Review and expand their study of common vocabulary topics, including professional contexts such as technology, work, shopping, and transportation
- Gain a deeper understanding of a wide range of grammar patterns, including distinguishing between past, present, future, and conditional verb tenses, making comparisons, and incorporating pronouns into speech
- Analyze and compare cultural practices, products, and perspectives of Spanish Speaking countries.
- Participate in expanded conversations and respond appropriately to a variety of conversational prompts

SPANISH 4

(1 MODERN LANGUAGE CREDIT)

Knights Difficulty: 

- Communicate more meaningfully using correct vocabulary and grammatical structures
- Read, write, speak, and listen for meaning in Spanish
- Analyze and compare cultural practices, products, and perspectives of various Spanish-speaking countries
- Regularly assess progress in proficiency through quizzes, tests, and speaking/writing submissions

Assessments

Listening and reading comprehension quizzes verify that students comprehend the main ideas and/or significant details of target language passages or conversations.

Culture comprehension quizzes verify that students have understood important concepts presented in the culture presentations.

MCQ's, fill in the blanks, mastery of the vocabulary words and grammar concepts presented that unit.

Midterm and Semester Exams are comprehensive in nature. Not only do they assess students' knowledge of the language, but they also assess students' ability to produce the language in a communicative way. Midterms and Semester Exams include both oral and written assessments.

Grading

Test, MCQ's, fill in the blanks	30%
Class projects, presentations, dialogs	30%
Quiz	20%
homework/Classwork, class participation	20%

DRAWING

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

The students will be working on observation exercises with still life, nature studies and figure drawings. The main techniques used in this course will be: line/ contour drawing, hatching, and cross-hatching, random-hatching, scribbling, stippling, and blending. They may be realistic to the point of lifelike resemblance (e.g. traditional portraits), looser approximations of reality (e.g. sketches), highly stylized (e.g. cartoons, caricatures), or abstract studies based on research.

The students will also be exploring & working with a variety of wet and dry mediums. Common means are graphite pencils, pen and ink, inked brushes, color pencils, crayons, charcoals, pastels, and markers

The areas of emphasis will be as follows:

- Creating images and volumes using the elements and principles of drawing and design.
- Develop knowledge of principles and elements of drawing and design
- Experiment and build sound technical skills and understanding of concepts
- Exposure to art movements/artists: develop intuition and reasoning about visual forms.
- Learn to manipulate form and experiment with research-based concepts.
- Stimulating creativity and originality.

Course expectations:

- Come to class on time
- The students need to finish the assignment on time. A deadline is given to them in advance.
- They need to be attentive in class when the teacher is giving instructions and/or demonstrating.
- Meet the objectives of an exercise.
- They need to be motivated and dedicated.
- The students are not encouraged to take work home.

DRAWING

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Semester grading:

Overall art project assessment/grading are done out of 100 and the break up is as follows:

Class participation: 20% (5 points/day) which includes:

- student motivation
- classroom discipline
- work ethics
- classroom discussion

Sketch book: 20% (10 points) which includes:

- brainstorming ideas
- number of sketches (minimum requirement is 4)
- research (if required)

Class project: 60% (20-50 points) which includes:

- creativity and originality
- adhere to the requirement
- submission on time
- use of medium/material
- student endeavor

DESKTOP PUBLISHING

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Overview:

The Desktop Publishing course combines the use of a computer, software, a scanner, a digital camera, the Internet, and a color laser printer into a stand-alone publishing system. This course will begin with a brief explanation of the publishing and printing process—the terminology, the history, the jobs, the hardware, and the software. Elements of page layout, color and design is explained. This class will eventually publish the school yearbook.

Goals & Objectives:

- To familiarize students with desktop publishing applications, Mainly Adobe InDesign with hands-on lessons and Adobe Photoshop/Adobe Illustrator to some extent to differentiate between vector and raster-based graphics and to enhance graphics.
- To develop problem solving skills.
- To understand and use correct computer terminology.
- To develop the background in computers necessary for success in high school and college
- To learn the fundamentals of page layout, design, and typography
- To learn how to take effective photographs.
- To develop skills in meeting deadlines, photographing school events, securing advertisements.
- To produce the school yearbook, Safar.

Prior Knowledge:

- Basic computer skills such as opening an application, creating, saving and editing a document.
- General computer terminology
- Keyboarding skills with minimum 20 WPM
- Able to use a mouse.
- Online research skills
- Skills in MS Office (word processing, multimedia presentations, and spreadsheets)
- Able to use graphics software (preferred but not required)
- Is creative.

DESKTOP PUBLISHING

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty:

Content Outline:

- Designing Concepts:
- Layout & Design Terminology
- Design and typography
- Manipulating Text
- Working with graphics
- Basic Layout Techniques
- Using Color
- Designing Advertisements
- Designing Brochures
- Designing Newsletters
- Working with long publications
- Prepress Techniques
- Exporting Publications as PDF, PNG, and JPEG Files

Generative Topics/ Essential Questions

The learning process begins with exploring tools and palettes, working with multiple layers, text flow and text wrap, master pages, customizing fonts (kerning, leading, tracing), using thumbnail sketches, experimenting with different page designs.

What must be given consideration to, in this class?

- Getting organized, listing the events that need to be included in the TOC, scheduling jobs for photography, page layouts, interview and researching the information for publishing on various pages in the yearbook.
- Thinking about timeframe, meeting deadlines, advertising and procuring ads to finance the costs for publishing the yearbook,
- Page layout concepts, design styles, color schemes, timeframe, and finances.
- Editing: Graphics and text, overall page layout and digital editing.

SCULPTURE AND CERAMICS

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

The Sculpture & Ceramic Course develops the students' perceptual, creative, technical, and problem-solving skills in a three-dimensional context. They will work with clay and paper and explore these two mediums in various forms as the round or free standing form, relief and assemblage. Elements and principles of design, such as value, line, shape, form, color, scale, are identified and employed.

A series of projects are assigned which are completed during class. Students are introduced to basic ceramic techniques. Concept, craftsmanship, originality, and expression are an integral part of the process. This is also a problem-solving class — there are many possible solutions to any given problem. One of the major objectives of the class is that the participants learn the vocabulary of sculpture/3D and employ that vocabulary during class.

Course expectations:

- Come to class on time
- The students need to finish the assignment on time. A deadline is given to them in advance.
- They need to be attentive in class when the teacher is giving instructions and/or demonstrating.
- Meet the objectives of an exercise.
- They need to be motivated and dedicated.
- The students will not be encouraged to take work home.

Semester grading:

Overall art project assessment/grading are done out of 100 and the break up is as follows:

Class participation: 20% (5 points/day) which includes:

- Student motivation
- Classroom discipline
- Work ethics
- Classroom discussion

SCULPTURE AND CERAMICS

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Sketch & Practice 20% (10 points) which includes:

- Brainstorming ideas / sketch
- Practice by making small units
- Research (if required)

Class project: 60% (50 points) which includes:

- Creativity and originality
- Adhere to the requirement
- Submission on time
- Use of medium/material
- Student endeavor

COMPUTER APPLICATIONS

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Goals & Objectives:

- To help students use the computer as a personal study tool to improve and enhance the quality of their course work.
- To provide situations where students can problem solve to develop their own projects.
- To understand and use correct computer terminology.
- To develop the background in computers necessary for success in college

Prior Knowledge:

- Basic computer skills such as opening an application, creating, saving and editing a document.
- General computer terminology
- Keyboarding skills with minimum 20 WPM
- Able to use a mouse.
- Online research skills
- Skills in word processing, multimedia presentations, database files and spreadsheets (preferred but not essential)

Generative Topics/ Essential Questions

This course is designed to provide students with experiences in various applications in the Office package that will be useful in their study life.

The course begins with key concepts such as understanding the Office interface, using input and output devices, saving, opening, editing, and printing files, file management, search the Web, email, and Office help. Addition projects given at the end of each app explains the use of Word, Excel, PowerPoint, Access, and Publisher to the students.

For best experiences in the utilizing the applications the course includes exercises, hands-on practices, critical thinking review questions, and projects of varying difficulty levels.

COMPUTER APPLICATIONS

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

The projects are designed to teach global awareness and financial, economic, and business literacy and how technology influences our daily lives.

Students will:

- Use technology tools and resources for managing and communicating personal/professional information (e.g., addresses, finances, schedules, purchases, and correspondence)
- Practice and refine knowledge of word processing, desktop publishing, spreadsheets, databases, multimedia, and telecommunication in preparing classroom assignments and projects.
- Digitally enhance images/data for use in various publications. Demonstrate knowledge of the advantages and disadvantages of using multimedia to develop, publish and present information to a variety of audience.

BEGINNER CONCERT BAND

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Overview

Are you ready to embark on a thrilling musical adventure? Look no further than the KAS Beginner Concert Band. Whether you're brand new to playing an instrument or have dabbled a bit, our beginner class offers a welcoming and supportive environment where you can learn, grow, and make beautiful music with fellow enthusiasts.

Classroom Expectations

In this course, you'll not only learn how to play your instrument but also how to listen, communicate, and collaborate with your fellow musicians. Through engaging rehearsals, interactive lessons, and exciting repertoire, you'll develop essential skills such as sight-reading, rhythm comprehension, and ensemble awareness. Throughout the school year, you'll have the opportunity to showcase your newfound skills at concerts, recitals, and community events, where you'll inspire audiences and leave them in awe of your musical talents. So join today, and let the adventure begin!

Beginner Concert Band Skills

Instrument Proficiency

Sight-reading music

Listening and Analysis of music

Performance & Rehearsal Etiquette

Music Interpretation

Rhythm and Timing

Creativity and Expression

Teamwork and Collaboration

Course Pre-requisites

None

INTERMEDIATE CONCERT BAND

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Overview

Do you want to take your skills to the next level? Look no further than the KAS Intermediate Concert Band. Our intermediate class offers a dynamic and enriching environment where passionate instrumentalists can refine their technique, expand their repertoire, and experience the thrill of making music at a higher level. The Intermediate Concert Band provides the perfect bridge between beginner and advanced levels, welcoming students who have mastered the basics and are hungry for more musical challenges. Whether you're a seasoned player seeking to enhance your skills or continuing from beginner class, our intermediate ensemble is the ideal place to continue your musical journey.

Classroom Expectations

In this course, you'll delve deeper into the art of ensemble playing, mastering complex rhythms, exploring diverse musical styles, and honing your interpretive skills. Through engaging rehearsals, personalized instruction, and collaborative learning, you'll push the boundaries of your musicality and unlock new levels of creativity and expression. Throughout the school year, you'll have the chance to showcase your talents at a variety of performances, including concerts, festivals, community events, and have opportunities to travel. From exhilarating solos to thrilling ensemble pieces, each performance will be a testament to your hard work, dedication, and passion for music. So join today, and continue on this musical adventure!

INTERMEDIATE CONCERT BAND

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Concert Band Skills

Advanced Instrument Proficiency

Sight-reading music

Ensemble Listening and Balance

Tuning and Intonation

Performance & Rehearsal Etiquette

Music Interpretation

Advanced Rhythm Skills

Music Theory and Analysis

Conducting and Leadership Skills

Creativity and Expression

Teamwork and Collaboration

Course Pre-requisites:

- Permission from teacher to join class
- Beginner Concert Band

ADVANCED CONCERT BAND

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Course Overview

Are you a seasoned musician yearning to soar to new heights of musical excellence? Look no further than the KAS Advanced Concert Band. Our distinguished ensemble offers a transformative musical experience for dedicated instrumentalists who are ready to push the boundaries of their artistry, refine their technique, and create breathtaking music at the highest level. The Advanced Concert Band represents the pinnacle of musical achievement at KAS, attracting the most talented and passionate musicians from across our campus. Whether you're continuing from Intermediate Band, a competitive musician, or just a simple music lover, our advanced class provides a dynamic and enriching environment where you can unleash your full potential and flourish as a musician.

Classroom Expectations

In this course, you'll embark on a captivating journey of musical exploration, tackling challenging repertoire from a wide range of genres and styles. From classical masterpieces, to jazz and pop, and to contemporary compositions, each piece will push the boundaries of your technical skill, musicality, and interpretive prowess, challenging you to strive for perfection and exceed your own expectations. Throughout the school year, you'll have the privilege of showcasing your talents at prestigious performances, competitions, festivals, and have opportunities to travel. Whether you're performing a virtuosic solo or collaborating with your peers in a thrilling ensemble piece, each performance will be a testament to your dedication, hard work, and unwavering commitment to musical excellence. So join today, and continue to strive on this musical adventure!

ADVANCED CONCERT BAND

(1 VISUAL/PER. ARTS & TECHNOLOGY CREDIT)

Knights Difficulty: 

Concert Band Skills

Advanced Instrument Proficiency

Advanced Sight-reading

Ensemble Listening and Blend

Chamber Music Skills

Performance & Rehearsal Etiquette

Music Interpretation

Advanced Rhythm Skills

Music Theory and Analysis

Conducting and Leadership Skills

Collaboration and Artistic Expression

Course Pre-requisites

- Permission from teacher to join class
- Intermediate Concert Band