

PROGRAM OF STUDIES

Grades 9-12



2021-2022

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Planning Your High School Program

Our comprehensive high school program offers courses designed to meet the academic and career needs of all students. By taking advantage of this curriculum and by selecting the most challenging courses, students will be able to achieve their personal goals while obtaining the preparation to pursue higher education or enter the world of work.

The State of New Jersey and the Board of Education for the Academy of Urban Leadership Charter School have established specific graduation requirements. The Academy of Urban Leadership Charter School's graduation requirement exceeds the minimum course/credit requirement set by the state. Please utilize the chart on the following page for more details.

In planning your program, it is important to remember that all courses must be approved by your parent/guardian and school counselor. Additionally, the course selection process must be completed by June 22.

CHANGES IN COURSE SELECTION AFTER JUNE 22 WILL ONLY BE CONSIDERED FOR PLACEMENT CORRECTIONS, SUMMER SCHOOL, AND CREDIT RECOVERY COURSES.

GRADUATION REQUIREMENTS

Attendance: Students must fulfill of attendance requirements established by the state of New Jersey and the Board of Education of Academy of Urban Leadership Charter School.

New Jersey State Graduation Assessment Requirements:

- For classes of 2018 and 2019, the New Jersey Department of Education requires students to pass a state approved exam by 1. Achieving a passing score on the PARCC assessment, 2. Achieving certain scores on the SAT, ACT, or Accuplacer, or 3. The submission of a student portfolio through the NJ Department of Education’s portfolio appeals process.
- For the class of 2020, students may pass any approved state exam pathway listed in previous bullet providing that these students take ALL PARCC assessments associated with the high school level courses in which they are eligible and receive valid scores.
- For the Class of 2021 and Beyond students will ONLY have two pathways to meet the high school testing graduation requirements which consists of 1. receiving a passing score on the Algebra 1 PARCC exam AND the English 10 PARCC exam, or 2. by the submission of a student portfolio through the NJ Department of Education’s portfolio appeals process.

Required Courses: The following courses are required and must be successfully completed before students are awarded their high school diploma. These requirements exceeds the state minimums.

Requirement	AULCS	New Jersey State Minimum
English	20 credits/4 years	20
Mathematics	15 credits/3 years	15
Science	15 credits/3 years	15
Social Studies	15 credits/3 years 5 in World History and 10 in US History	15 (5 credits in World history, 10 Credits in US history)
World Language	10 credits/2 years	5
Physical Education/Health/Drivers Education	15 credits over four years: 3 ¾ credits in health, safety, physical education during each year of enrollment	15-20
21st Century Life	5 credits	5
Visual and Performing Arts	5 credits	5
Economics/Financial Literacy	2.5 credits	2.5
Other Courses	27.5 credits	17.5
Internship	5 credits	0
Credits	140	120

Community Service Hours: All students at AULCS are also required to complete 100 hours of community service before the end of their senior year to earn their High School Diploma.

SUCCESSFUL COMPLETION OF REQUIRED COURSES

Required courses that are failed must be made up in summer school or repeated the following school year. Only two failed classes can be taken during summer school and once a third class is failed students have the option to repeat the failed course during the school year or take the course the following year in summer school. Students who fail any course during the school year put themselves at risk to not graduate on time with the rest of their class. ANY EXCEPTION TO THIS MUST BE APPROVED BY THE PRINCIPAL.

I. Weighted and Unweighted Grade Point Average (Grades 9-12)

A weighted grade point average will be computed for each student who takes accelerated or AP courses.

All other courses will be factored into an unweighted grade point average. A quality point value is assigned to each letter grade according to the following chart:

GRADE	NUMERIC EQUIVALENT	GPA	GPA ACCELERATED x1.1	GPA AP COURSE x1.2
A+	98-100	4.00	4.4	4.8
A	95-97	3.75	4.1	4.5
A-	93-94	3.50	3.9	4.2
B+	90-92	3.25	3.6	3.9
B	87-89	3.00	3.3	3.6
B-	85-86	2.75	3.0	3.3
C+	81-84	2.50	2.8	3.0
C	78-80	2.25	2.5	2.7
C-	75-77	2.00	2.2	2.4
D+	72-74	1.75	1.9	2.1
D	70-71	1.50	1.7	1.8
F	69 or lower	0.00	0.0	0.0

II. Honor Roll will be awarded to students as follows:

- Principal's List: 93 (A-) or higher in every course taken
- 1st Honors: 85 (B-) or higher in every course taken
- 2nd Honors: Only one class average falls between the 75 (C-) to 84 (C+) range and at least a 85 (B-) or higher in all other courses taken

College Planning

Students planning to attend a two or four year college/university are encouraged to take a full academic program each year they are in high school (grades 9-12). Recently, colleges have been increasing their academic standards. Many colleges/universities require students to take placement tests which could affect them throughout their college career. Freshman who do not meet the standard on the test for English or Math may be placed into remedial classes which could affect their graduation date with that college/university.

Additionally, students planning to attend college should use Naviance, their school counselor, and other internet services to research college opportunities. They should be enrolled in challenging college preparatory courses in all subjects every year. Some colleges prefer more than the minimum requirements and some will accept a variety of course patterns. Many Competitive colleges and universities **require** a minimum of 16 academic subjects which are as follows:

English	4 years
Social Studies	3 years
Mathematics	4 years
Science	3 years (4 years preferred)
World Language	2 years (3 or more preferred)

Students expecting to major in mathematics, science, or world languages are strongly urged to take four years of study in these areas. Because of the high "dropout rate" during the first year of college, the following advice is offered to all college-bound seniors: It is more important to complete your first year at college than to enjoy your senior year at high school. Thus, your 12th-grade program should be a rigorous academic experience.

Each year, over one hundred representatives of colleges, universities, community colleges, technical, and other specialized schools reach out to prospective high school seniors. Annually, there are college information programs conducted at other high schools and at Middlesex County College. Specific dates are announced through the Counseling Department. Parents and students are encouraged to attend these programs.

Students should also consider taking more rigorous courses to help prepare them for the SAT or ACT test that is required by many colleges and universities. Some students should also consider taking Advanced Placement (AP) classes their junior and senior years who have shown high levels of academic performance. These courses are offered in a variety of subject areas and are dependent on report card grades, standardized test scores, student interest, teacher recommendation, and motivation. Every student who is enrolled in an AP course is expected to take the AP exam in May which if students receive a passing grade can be used for college credit.

Please note that some courses are not offered every year and courses are offered based on student interest in a course.

ELIGIBILITY REQUIREMENTS

DIVISIONS I AND II INITIAL-ELIGIBILITY REQUIREMENTS

The interscholastic athletic and co-curricular programs provide opportunities for students to pursue their interests and develop their talents through participation in a variety of activities. The eligibility requirements for participation in these activities are as follows:

INTERSCHOLASTIC ATHLETICS - All Board of Education approved athletic activities in grades 9-12 are sanctioned by the New Jersey Interscholastic Athletic Association (NJSIAA)

Eligibility requirements for participation in athletic activities are the same as those adopted by the New Jersey Interscholastic Athletic Association -- with the exception that the Board of Education has adopted the following additional requirements:

1. Students must adhere to Board rules and regulations regarding conduct, academics, and attendance.
2. Academic Requirements
 - Be sure to look at your high school's list of NCAA Courses on the NCAA Eligibility Center's website (www.eligibilitycenter.org). Only courses that appear on your school's List of NCAA Courses will be used in the calculation of the core GPA. Use the list as a guide.

Students who plan to participate in interscholastic sports while in college should go to the NCAA website (www.ncaa.org/student-athletes) for eligibility requirements.

CO-CURRICULAR ACTIVITIES - Eligibility requirements for participation in co-curricular activities are the same as those governing eligibility for participation in interscholastic athletics.

ADDITIONAL INFORMATION REGARDING ELIGIBILITY REQUIREMENTS FOR PARTICIPATION IN INTERSCHOLASTIC ATHLETICS AND CO-CURRICULAR ACTIVITIES MAY BE OBTAINED FROM THE PRINCIPAL, COUNSELORS, ATHLETIC DIRECTOR, COACHES AND ACTIVITY SPONSORS

SPECIAL PROGRAMS

TRADITIONAL AND ADVANCED ACADEMY

Traditional Academy

Every student at AULCS will pick an academy they want to explore after their Freshman Year. Students will choose certain electives that fall into the four tracks listed below however they do not follow the same rigorous program as the Advanced Academy students. Students do not need to fill out an application for this but just let their counselor know which career field they are interested in and then they can choose an elective based on their particular field of interest.

Advanced Academy

This special program is offered to students at AULCS after their Freshman Year. Student will fill out an application during their Freshman year to be accepted into one of the advanced tracks for their Sophomore, Junior, and Senior year based on their academics, career interest, and behavior. Students in this program require at least a 3.0 GPA at the end of Freshman Year to be considered. Once the application is submitted a committee looks at each applicant and determines based on the criteria if the student is eligible for the program or not. The difference between the advanced academy and traditional academy is the types of electives the students can take and that these courses are considered Honor courses. There are four tracks students can choose from. The tracks and subtracks are listed below:

Advanced Tracks

- Law and Public Safety
 - Criminal Justice and Law
- Business Technology
 - Computer Systems Technology
 - International Business
- Applied Science (STEM)
 - STEM: Biomedical Sciences
 - STEM: Engineering
- Human Development
 - Biopsychology
 - Education

COURSE DESCRIPTIONS

ENGLISH

Core Courses

English I

Prerequisites: *None*

Description: The objective of this course is for students to develop greater interpretive and analytical skills and acquire a working knowledge of literary terminology and technique as they respond to literature with essays, creative writing, and journal entries. Through a thematic unit approach, students will examine the answers to essential questions raised in literature, as well as examine and emulate the techniques, skills, and style of the writers.

Course Literature: *The House on Mango Street, Of Mice and Men, A Raisin in the Sun, To Kill a Mockingbird, Romeo and Juliet, as well as the short stories: The Veldt, The Necklace, The Storyteller, The Gift of the Magi, and Gaston*

5 Credits, Full Year Course

English I Accelerated

Prerequisites: *Grade of B or higher in 8th Grade English and teacher recommendation*

Description: The objective of this course is for students to develop greater interpretive and analytical skills and acquire a working knowledge of literary terminology and technique as they respond to literature with essays, creative writing and journal entries. Through a thematic unit approach, students will examine the answers to essential questions raised in literature, as well as examine and emulate the techniques, skills and style of the writers through rigorous and challenging learning activities.

Course Literature: *The House on Mango Street, Of Mice and Men, To Kill a Mockingbird, Romeo and Juliet, as well as the short stories The Veldt, The Necklace, The Storyteller, The Gift of the Magi, Gaston, and A Raisin in the Sun.*

5 Credits, Full Year Course

Applications of English 9

Prerequisites: *Taking English I Concurrently*

Description: The objective of this course is for students to develop a greater understanding of the fundamentals to reading and writing. They will enhance their analytical skills while acquiring a working knowledge of literary terminology and technique as they respond to stories and writing prompts with essays, creative writing pieces, and journal entries.

Course Literature: *Shakespearean sonnet examples, "Word is Dead" by Emily Dickinson, "Harlem" by Langston Hughes, "Alone" by Maya Angelou, "My Papa's Waltz" by Theodore Roethke, "The Red Wheelbarrow" by William Carlos Williams*

1 Credit, Full Year Course.

English II

Prerequisites: *English I*

Description: Students will read challenging classic and modern fiction and nonfiction literature grasping thematic concepts, analyzing data, drawing conclusions, and making inferences as they read. Throughout the year, students will create arguments by supporting their claims with warrants, write literary analysis essays, create stories focusing on narrative techniques, apply research skills in order to report, share, and teach one another, and maintain personal journals as they develop insight into the essential questions raised in literature.

5 Credits, Full Year Course.

English II Accelerated:

Prerequisites: *English I or Accelerated English I with a grade of B or higher and teacher recommendation*

Description: Students will read challenging classic and modern fiction and nonfiction literature grasping thematic concepts, analyzing data, drawing conclusions, and making inferences as they read. Throughout the year, students will create arguments by supporting their claims with warrants, write literary analysis essays, create stories focusing on narrative techniques, apply research skills in order to report, share, and teach one another, and maintain personal journals as the develop insight into the essential questions raised in literature.

Accelerated students will begin to be exposed to college level rubric as well as AP scale rubrics to enhance thinking and writing skills as well as promoting collegiate-level diction. These students will also be required to analyze higher leveled early modern English texts such as Othello by William Shakespeare.

5 Credits, Full Year Course

Applications of English II

Prerequisites: *Taking English II concurrently*

Description: The objective of this course is for students to strengthen their fundamental skills in reading and writing. They will continue to analyze, infer, and synthesize through the use of short texts (both fiction and nonfiction) and responses as well as by producing their own creative and academic writing. All the varied elements of this course will bolster and enhance students' preparedness for standardized tests and their overall study of English.

1 Credit, Full Year Course.

English III

Prerequisites: *English I and English II*

Description: To truly understand America and its development, students will explore not only its literary tradition but the diverse cultures that the nation entails. Throughout the year, students will have the opportunity to make connections with history, art, music, and other subjects, building on their writing skills from previous years and adding to their critical thinking and problem-solving skills. There is an emphasis on American society, current events, social injustice, and the importance of relationships. By the end of this year, students will have developed a foundation in American literature in which they can relate to. This course will help students to understand the American value and induce the will to be contributing members of America's ever-progressing society.

5 Credits, Full Year Course.

English III Accelerated:

Prerequisites: *English I and English II or Acc Eng I and Acc Eng II with a grade of B or higher and teacher recommendation*

Description: To truly understand America and its development, students will explore not only its literary tradition but the diverse cultures that the nation entails. Throughout the year, students will have the opportunity to make connections with history, art, music, and other subjects, building on their writing skills from previous years and adding to their critical thinking and problem-solving skills. There is an emphasis on American society, current events, social injustice, and the importance of relationships. By the end of this year, students will have developed a foundation in American literature in which they can relate to. This course will help students to understand the American value and induce the will to be contributing members of America's ever-progressing society. These students will also have the opportunity to explore challenging ideas and philosophies such as existentialism and the journey of life through texts such as *The Alchemist* by Paulo Coelho. Accelerated students will begin to be exposed to college level rubric as well as AP scale rubrics to enhance thinking and writing skills as well as promoting collegiate-level diction by differentiating nuances of language by analyzing connotation and denotation of words.

5 Credits, Full Year Course.

Applications of English 11

Prerequisites: *Taking English III concurrently*

Description: The objective of this course is for students to strengthen their skills in reading and writing, with the specific focus of nonfiction works. Students will choose from nonfiction selections including: *The Immortal Life of Henrietta Lacks, Enrique’s Journey, The New Jim Crow, and Harvest of Empire.* Students will also prepare for tests such as the PARCC, SAT, and ACT in this class, by focusing on reading, writing, analysis and critical thinking skills related to tasks they will encounter on these tests.

1 Credits, Full Year Course.

English IV

Prerequisites: *English I, English II, & English III*

Description: The objective of this course is to strengthen student’s skills in reading literature, writing both creative and critical analysis tasks, debating effectively, and using proper grammar. Students will also focus on preparation for college by increasing their autonomy, time management skills and confidence as readers and writers, gaining expertise in evaluating literature using a variety of literary theories, and crafting an essay to be used as a personal statement for college application. Major works include Beowulf, The Canterbury Tales, Hamlet, novel of choice for the research paper, Gothic Literature selections, and The Handmaid’s Tale.

5 Credits, Full Year Course.

English IV Accelerated

Prerequisites: *English III or English III Accelerated with a grade of B or higher and teacher recommendation*

Description: This course is focused on meeting the needs of advanced students who require an additional challenge. Students will also focus on preparation for college by increasing their autonomy, time management skills and confidence as readers and writers, gaining expertise in evaluating literature using a variety of literary theories, and crafting an essay to be used as a personal statement for college application. Students are expected to read independently and at an accelerated pace, including major works include Beowulf, The Canterbury Tales, Hamlet, novel of choice for the research paper, Gothic Literature selections, and The Handmaid’s Tale.

5 Credits, Full Year Course.

SAT PREP in English

Prerequisites: *None*

Description: The first two marking periods will focus on preparations for the SAT/Accuplacer assessments students need to pass in order to graduate. The remaining two marking periods will be focused on college reading leveled texts. It will also focus on writing in narrative, expository, descriptive and persuasive styles. Students will also have a units on modern rhetoric and social justice.

1 Credit, Full Year Course.

AP English, Literature and Composition

Prerequisites: *English I, English II, & English III with a grade of a B or higher in all classes & teacher recommendation*

Description: Students will write in-class timed and untimed essays and longer at-home papers that critically analyze the texts, develop and argue a thesis, and explain interpretations. In these papers, students will examine the author’s use of literary devices, choice in structure and style, and development of tone. Students will also examine the context and impact of the text’s publication. Students will revise essays to become better college writers. Throughout the year, students will be exposed to the format of the AP Exam. Additionally, students will explore literature recommended through Collegeboard. The teacher and students will develop effective strategies together and apply these best practices to texts and writings from class and practice AP sections.

10 Credits, Full Year Course.

ELL Level One (entering level)

Prerequisites: *None*

Description: This course is for any student who is not a native English Speaker. The main objective of this course is to introduce students to basic vocabulary and grammar structures of the English Language through building the skills of reading, listening, speaking, and writing. Upon completion of the course, the students will be able to write complete sentences, short paragraphs and expand their oral comprehensibility.

2 Credits, Full Year Course.

ELL Level Two (intermediate level)

Prerequisites: *ELL Level One*

Description: This course is the extension of previously built skills in ESL I course. It focuses on expanding vocabulary, reading and listening comprehension, speaking and pronunciation skills. The students will be able to write multiple – paragraph compositions with a minimum of errors. This course contributes to the skills students need in their mainstream classes.

2 Credits, Full Year Course.

ELL Level Three (High Intermediate level)

Prerequisites: *ELL Level Two*

Description: This course is designed to help advanced English language learners use and extend previously learned skills more effectively and consciously. The emphasis is placed on intensive grammar instruction that supports academic writing skills.

2 Credits, Full Year Course.

ELL Level Four (advanced level)

Prerequisites: *ELL Level Three*

Description: This course is designed to help advanced English language learners use and extend previously learned skills more effectively and consciously. The emphasis is placed on intensive grammar instruction that supports academic writing skills.

2 Credits, Full Year Course.

Electives

Creative Writing

Prerequisites: *Juniors and Seniors only, English I*

Description: Creative Writing aims to develop the writing talents of students in the areas of poetry, short fiction, and drama. Students will write original works while studying the creative process and the literary devices used in sample texts from each genre.

2.5 Credits, Half Year Course paired with Drama.

Drama

Prerequisites: *Juniors and Seniors only, English I*

Description: Drama aims to introduce the concepts of and give students the opportunity to complete projects in the areas of acting, directing, producing, writing, set lighting, sound, costumes, and makeup.

2.5 Credits, Half Year Course paired with Creative Writing.

World Literature

Prerequisites: *Juniors and Seniors only*

Description: The objective of this course is for students to broaden their knowledge of literature and poetry to include authors from all around the globe while strengthening their skills in reading, writing and discussion. The works read will discuss the cultural perspectives of the people of The Caribbean, South and Central America, Africa, Asia and more.

5 Credits, Full Year Course.

College Writing

Prerequisites: *Junior or Senior with a B or higher average in their English courses.*

Description:

This course will introduce the reading and writing standards of the Universities. The first two marking periods will be on the nuts and bolts to these two skills. The last two marking periods will require students to complete a series of writing assignments and presentations that demonstrate their understanding of the college levels texts they will read in class.

5 Credits, Full Year Course.

Intro to Education

Prerequisites: *Juniors and Seniors only*

Description: The Intro to education course offers students the opportunity to explore the career option of the educational field by developing knowledge and critical skills required to become a teacher. Students will investigate extended concepts like psychology of learning, history of education in the U.S., building rapport and respect in the classroom, emotional and cultural competency, curriculum and instruction and methodology. Students will create and assess their own philosophy of education, have opportunities to plan for and implement lessons, plan a unit, observe teachers, and offer resolutions from their perspective in order to help enhance the prosperity of our education system.

5 Credits, Full Year Course.

Advanced Academy Intro to Education

Prerequisites: *Sophomores only accepted into the Education Track*

Description: Studies the historical, philosophical, and sociological underpinnings of education. Provides a framework that sets the foundation of educational thought by becoming familiar with the interrelations of schooling community and legal issues impacting American educational systems. The issues surrounding the education of children with cultural and linguistic differences are also highlighted.

5 Credits, Full Year Course.

Advanced Academy Language Arts in Early Education

Prerequisites: *Juniors only accepted into the Education Track, Advanced Academy Intro to Education*

Description: This course explores the development of language and ways in which teachers can stimulate and encourage language development. Emphasis is placed on the young child's verbal expressions and the creation and use of materials and activities to stimulate listening, speaking, reading, and writing skills in young children.

5 Credits, Full Year Course.

Advanced Academy Curriculum and Assessment Design

Prerequisites: *Seniors only accepted into the Education Track, Advanced Academy Language Arts in Early Education*

Description: This course introduces students to the process of curriculum design and assessment. Students will have the opportunity to develop a definition of curriculum and assessment that reflects their own personal philosophy of education. Students will develop their own model of curriculum development and assessment.

5 Credits, Full Year Course.

COURSE DESCRIPTIONS

Mathematics

Core Courses

Algebra I

Prerequisites: *None*

Description: This is an essential and building block course for all mathematics courses to be taken in high school and college. Topics for this course include: Equations, inequalities, relations, functions and graphs, linear systems, exponents and polynomials, quadratic functions, sequences, and exponential (growth and decay) functions.

5 Credits, Full Year Course

Algebra I Accelerated

Prerequisites: *Pre-Algebra I with a grade of B or higher & teacher recommendations*

Description: All topics that are covered in regular Algebra I are taught with the addition of Understanding Inverse Functions and Statistical Models.

5 Credits, Full Year Course.

Applications of Math 9

Prerequisites: *Taking Algebra I Concurrently*

Description: The purpose of this course is to complement the Algebra I course. Students will use a variety of resources such as Triumph Learning (Common Core), online construction tools, and ALEKS program. ALEKS program is a self-paced online adaptive program to assist students in mastering the various topics in all math content areas.

1 Credit, Full Year Course.

Geometry

Prerequisites: *Algebra I*

Description: This course is designed to help students understand the logical aspect of mathematics. Topics include transformations, congruency, similarity, proofs, basic trigonometry, circles, and expressing geometric properties through equations, three-dimensional geometry, and constructions of lines, angles, and polygons.

5 Credits, Full Year Course.

Geometry Accelerated

Prerequisites: *Algebra I with a grade of B or higher & teacher recommendations*

Description: All topics that are covered in regular Geometry are taught with the addition of Simple Probability.

5 Credits, Full Year Course.

Applications of Math 10

Prerequisites: *Taking Geometry concurrently*

Description: The purpose of this course is to complement the Algebra I course. Students will use a variety of resources such as Triumph Learning (Common Core), online construction tools, and ALEKS program. ALEKS program is a self-paced online adaptive program to assist students in mastering the various topics in all math content areas.

1 Credit, Full Year Course.

Algebra II

Prerequisites: *Algebra I and Geometry*

Description: This course is to continue and advance student's knowledge from Algebra I. Topics are discussed in greater detail and expanded upon. Some of the more intensive concepts include: Quadratic functions and factoring, polynomials and polynomial functions, rational exponents, function composition, radical functions, exponential and logarithmic functions, analytic trigonometry, data analysis, and sequences and series.

5 Credits, Full Year Course.

Algebra II Accelerated

Prerequisites: *Algebra I and Geometry with a grade of B or higher & teacher recommendations*

Description: All topics that are covered in regular Algebra II are taught with the addition of Compound Probability and Statistics.

5 Credits, Full Year Course.

Applications of Math 11

Prerequisites: *Taking Algebra II concurrently*

Description: The purpose of this course is to complement the Algebra II course. Students will use a variety of resources such as Triumph Learning (Common Core), online construction tools, and ALEKS program. ALEKS program is a self-paced online adaptive program to assist students in mastering the various topics in all math content areas.

1 Credits, Full Year Course.

SAT PREP in Math

Prerequisites: *None*

Description: The SAT Prep course is designed to help students prepare for the rigors of taking SAT tests offered by the College Board. Our primary goal is to identify and implement test taking strategies using prerequisite knowledge to increase student performance.

1 Credit, Full Year Course.

College Algebra

Prerequisites: *Algebra II*

Description: This course is designed to prepare students for college-level mathematics. In addition, the students have the opportunity to earn college credit upon completion of the course. Topics include concepts of algebra, algebraic functions, and graphs, exponential and logarithmic functions and graphs, inequalities, systems of equations, and probability. Applications are emphasized.

5 Credits, Full Year Course.

Precalculus

Prerequisites: *Algebra II with a grade of C or higher*

Description: This course prepares students for all levels of Calculus. The course is broken up into two parts. In the first semester, students will review Analytical Trigonometry. Students will then be introduced to Vectors, Conic Sections, and Sequences and Series. In the second semester, students will be introduced to Calculus, learning limits, derivatives, their properties, and applications. At the end of the course students will be prepared to take AP Calculus AB.

5 Credits, Full Year Course.

AP Calculus AB

Prerequisites: *PreCalculus with a grade of B or higher & teacher recommendation*

Description: This course consists of a full high school academic year of work and is comparable to a college-level course. It is expected that students who take an AP course in calculus will seek college credit and/or college placement by taking the AP Calculus exam in May. This course seeks for students to understand the fundamental concepts and methods of differential and integral calculus with an emphasis on their application, and the use of multiple representations incorporating graphic, numeric, analytic, algebraic, and verbal and written responses. Technology is an integral part of the course and includes the use of computers, MathXL (an online interactive learning environment), graphing calculators, graphing tablets, and data analysis software. Instruction is supported with online homework assignments, quizzes, and exams intended to develop the conceptual framework necessary for success. This course systematically develops a student's understanding of the conceptual framework of differential and integral Calculus as students are prepared for success on the AP Calculus AB exam.

10 Credits, Full Year Course.

AP Calculus BC

Prerequisites: *AP Calculus AB with a grade of B or higher & teacher recommendation*

Description: This course is a continuation of AP Calculus AB. Additional topics include sequences and series, conic sections, vectors, parametric equations, and integration by parts. At the end of this course students are expected to take the AP Calculus BC exam.

10 Credits, Full Year Course.

Electives

Math for Financial Markets

Prerequisites: *Algebra II*

Description: This course illustrates how concepts of Algebra are utilized in the financial world. Topics include the stock market, modeling a business, banking services, consumer credit, income taxes, and preparing a budget.

5.0 Credits, Full Year Course.

Statistics

Prerequisites: *Algebra II*

Description: High School statistics is to make every student understand the concepts of statistical terminology. Students will gain proficiency on accuracy and communication of statistical concepts throughout the course, to include effectively communicating how methods, results, and interpretations of data for any given experiments are valid. Students are exposed to four broad conceptual themes: 1. Exploring data: Describing patterns and departures from patterns 2. Sampling and Experimentation: Planning and conducting a study 3. Anticipating patterns: Exploring random phenomena using probability and simulation 4. Statistical inference: Estimating population parameters and testing hypotheses.

5 Credits, Full Year Course.

COURSE DESCRIPTIONS

Physical Education and Health

Core Courses

Physical Education class must be taken every year the student is in high school. Students in physical education will develop movement skills in diverse physical activities that include rhythmic movement, games, individual and team sports, strength-conditioning and cardiovascular exercises. Lifelong health and physical fitness is supported through challenging units of study that are developmentally and age appropriate. Students develop personal fitness goals and track progress towards attaining those goals over time to ensure an individual focus on achieving and maintaining a healthy lifestyle that supports physical activity, analytical skills, team-building skills, goal setting, and self-assessment.

Health 9

Prerequisites: *None*

Description: Students focus on personal wellness. Students will examine methods to establish and maintain lifelong health and wellness. Through an ongoing evaluation of their own goals and progress in establishing proactive habits, students focus on their personal responsibility in ensuring wellness and success. The course of study includes how to make healthy decisions, personality and self-esteem, managing stress, mental disorders and suicide, reproduction and heredity, and pregnancy. Benchmark assessments are employed to track individual student progress.

1.25 Credits, 1 marking period course.

Health 10

Prerequisites: *None*

Description: Students will continue to develop knowledge and awareness of best practices to maintain lifelong health, including an examination of the ill effects of drugs, alcohol, and tobacco use. Benchmark assessments are employed to track individual students progress.

1.25 Credits, 1 marking period course.

Driver's Education, Grade 10

Prerequisites: *None*

Description: This course is designed to give students the knowledge to become responsible drivers. The course promotes driver safety and positive decision-making skills related to driving. Students study defensive driving during thirty hours of mandated classroom instruction, which includes the following skills: assessing and managing risk, handling social pressures, signs, signals and road markings, the GDL, and rules of the road. Emphasis is placed on road courtesy, state laws, and safe driving attitude, instruction coverage is also provided. The New Jersey State driver's written test is administered at the conclusion of the program. Benchmark assessments are employed to track individual student progress.

1.25 Credits, 1 marking period course.

Health 11

Prerequisites: *None*

Description: Students will learn all concepts dealing with nutrition. Students will learn about the digestive & excretory systems of the body. They will analyze food nutrients and labels, determine ways to eat healthier, discuss ways to break bad eating habits, compare and contrast dietary habits of today's youth worldwide, develop a personal nutrition plan, research and summarize methods to gain or lose weight through exercise and caloric maintenance. Another aspect that students will be able to explore is the positive and negative effects of personal behaviors as students investigate diverse familial relationships and practices as well as peer relationships. Students collaborate to analyze healthy relationships and the positive choices that lead to personal success and happiness. Avoidance of unsafe and harmful practices, such as, drug and alcohol abuse, dangerous sexual behavior, and human trafficking is explored by student led research and analysis.

1.25 Credits, 1 marking period course.

Health 12

Prerequisites: *None*

Description: Through investigation, practice of discrete skills, and performance, students develop the requisite skills enabling them to administer Adult and Pediatric First Aid/CPR/AED. Realistic mannequins are used to teach techniques that include opening the airway, performing rescue breathing, and the application of CPR for infants, children, and adults. The topic of organ donation is covered in depth as well. Benchmark assessments are employed to track student progress.

1.25 Credit, 1 marking period course.

COURSE DESCRIPTIONS

Social Studies

Core Courses

World History

Prerequisites: *None*

The objective of World History is to provide a comprehensive survey of the most noteworthy people events and concepts of civilized times. Throughout this course students will learn exactly what history is, how we study it, and why it is important. This course provides a comprehensive and exploratory study of history from a brief review the ancient civilizations with a focus on the classical civilizations through the modern era. Students will be actively involved with study skills, hands on activities, essays, and various other assignments. As a class students will learn how to think and write like a historian. Through careful examination of various sources, both primary and secondary, we will be able to form a better comprehension of civilizations of the past and make connections as to how these ancient worlds helped to shape our modern world. Students will be focused on developing analytical and critical thinking skills.

5 Credits, Full Year Course.

Accelerated World History

Prerequisites: *Teacher recommendation*

This course addresses all of the main concepts that the regular World History course covers. However, this course does go into further detail and discussion on topics as well as improving analytical skills and critical thinking skills.

5 Credits, Full Year Course.

US History I

Prerequisites: *World History*

Throughout this course we will examine major events, people, and themes that shaped the formation and rise of our nation. Our length of study will encompass America's colonial founding up to the birth of Modern America (roughly 1600's-1900's). Topics of study will include periods such as the American Revolution, The Constitution and the Young Republic, The Jacksonian Era, Manifest Destiny, The Civil War and Reconstruction, and the Rise of Industry. Students will be actively involved with study skills, hands on activities, essays, and various other assignments. As a class we will learn how to think and write like a historian. Students will go beyond the acquisition of facts to develop skills for collection, in-depth analysis, and interpretation of information important to the study of United States History.

This course is a survey of American History from 1585-1900. Upon successful completion of the course, students will be able to demonstrate and understanding of historical chronology by mastering the knowledge of historical narrative of the United States from the emergence of the 13 Colonies to the Post Civil War, interpret and apply data from original documents, use historical data to support generalizations and interpretations, and effectively use analytical skills of evaluation, cause and effect, and comparison.

5 Credits, Full Year Course.

US History I Accelerated

Prerequisite: *World History with a grade of B or higher and teacher recommendation*

Throughout this course we will examine major events, people, and themes that shaped the formation and rise of our nation. Our length of study will encompass America's colonial founding up to the birth of Modern America (roughly 1600's – 1900's). Topics of study will include periods such as the American Revolution, The Constitution and the Young Republic, The Jacksonian Era, Manifest Destiny, The Civil War and Reconstruction, and the Rise of Industry. Students will be actively involved with study skills, hands on activities, essays, and various other assignments. As a class we will learn how to think and write like a historian. Students will go beyond the acquisition of facts to develop skills for collection, in-depth analysis, and interpretation of information important to the study of United States History.

Through careful examination of various sources, both primary and secondary, we will be able to form a better comprehension of our past and be able to comprehend how it shapes our society today. This course is a survey of American History from 1585-1900. It will trace the political, social, cultural, geographic, and economic development of the United States from colonial times to the start of the 20th century. Special attention will be given to the establishment of the new nation, America's expansion across the continent, sectional problems, and reconstruction; issues raised by industrialization, urbanization, and immigration. In addition, this course emphasizes the awareness and analysis of multiple perspectives. The human experience through the eyes, words, deeds, and influences of distinct racial, ethnic, gender, and social groups presents the complete spectrum for the study of the formation and development of the United States. Upon successful completion of the course, students will be able to: a. To demonstrate an understanding of historical chronology by mastering the knowledge of historical narrative of the United States from the emergence of the 13 Colonies to the Post Civil War. b. To interpret and apply data from original documents. c. Use historical data to support generalizations and interpretations. d. Effectively use analytical skills of evaluation, cause and effect, and comparison.

5 Credits, Full Year Course.

US History II

Prerequisites: *US History I*

This course is a survey of American history from the post-Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic and cultural developments in American history since the Civil War. Through our year long course, students will explore US history from the 19th century through today. Students will also focus on developing skills

to question and analyze texts of various kinds, empathize and identify the motives of historical individuals, learn about the US's changing role in the world, and examine the early stages of today's controversies such as immigration, social inequality and the role of the government. Upon successful completion of the course, students will be able to demonstrate an understanding of historical chronology by mastering the knowledge of historical narrative of the United States from the conclusion of the Civil War to the present, interpret and apply data from original documents, use historical data to support generalizations and interpretations, and effectively use analytical skills of evaluation, cause and effect, and comparison.

5 credits full year course

US History II Accelerated

Prerequisites: US History I with a grade of B or higher and teacher recommendation

This course is a survey of American history from the post-Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War. Native Americans, minorities, women, and representative biographies are also examined. Through our year-long course, we will explore US history from the 19th century through today. We will focus on developing skills to question and analyze texts of various kinds, empathize and identify the motives of historical individuals, learn about the US's changing role in the world, and examine the early stages of today's controversies such as immigration, social inequality and the role of the government.

You will learn about broad themes in the history of modern America, including immigration, race and ethnicity, social and political reform, mobility and population growth, contested meanings of freedom, industrialization, cycles of prosperity and recession, popular culture, modernity, and rights movements. You will also develop ways of thinking historically through critical analysis of primary and secondary sources; setting events, documents and people in their historical contexts; and crafting interpretations and historical narratives from the "raw material" of the past. In this course, you should expect to do much more than memorize facts or dates – you will be busy actively doing history, not passively learning about history. Upon successful completion of the course, students will be able to: a. To demonstrate an understanding of historical chronology by mastering the knowledge of historical narrative of the United States from the conclusion of the Civil War to the present. b. To interpret and apply data from original documents. c. Use historical data to support generalizations and interpretations. d. Effectively use analytical skills of evaluation, cause and effect, and comparison.

5 credits full year course

AP US History

Prerequisites: 90 or higher in US I and US II History Accelerated OR 95 or higher in regular US I and US II, teacher recommendation, and a signed form by parent and student regarding what is expected in the course

The objective of the Advanced Placement US History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and issues found throughout US history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full year introductory college courses.

Students should learn to assess historical materials, their relevance to a given interpretive problem, reliability, and importance to weigh the evidence and interpretations presented in historical scholarship. An AP US History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgement and to present reasons and evidence clearly and persuasively in essay format. Special emphasis will be placed on the following historical themes as established by the college board: American and National Identity, politics and power, work, exchange, and technology, culture and society, migration and settlement, and geography and the environment. At the completion of the course students will be expected to take the AP US History exam in May.

5 Credits, Full Year Course.

Electives

Sociology

Prerequisites: *Only for Juniors and Seniors*

This objective of this course is to introduce students to the theories, concepts and areas of inquiry that typically characterize sociological analyses. Specific areas to be covered may include: culture, socialization and social interaction, social groups, deviance, social class, race and ethnicity, sex and gender, and aging. Students will develop a broader and more comprehensive understanding of the complex society in which we live. They will explain the relationship between the basic cultural concepts: values, norms, roles, and sanctions. Students will have to identify major social concerns and understand their importance so as future citizens they will be better prepared to confront these problems.

Furthermore, students will also be expected to analyze and interpret a variety of primary and secondary source materials.

5 Credits: Full Year Course.

Law and Criminology

Prerequisites: *For Juniors and Seniors only, must have a B or higher average in all Social Studies courses.*

Description: Law and Criminology is a law-related education course that will focus on our national, state, and local legal systems. The course will be divided into half year sections. The content of part one will be conveyed in a practical format to allow students to gain the knowledge necessary to thrive in our law-saturated society. Students will have the opportunity to conduct discussions, research and debates with their classmates about practical legal problems, contemporary legal issues, and the ramifications of breaking the law. Part two will also encourage students to determine what causes crimes by examining different sociological, psychological, and biological theories behind criminal behavior. As students understand why criminal behavior occurs, they can enhance their understanding of society's response to crime and methods for alleviating criminal behavior. In determining the causes and effects of criminal behavior, the workings of the criminal justice, and differences between criminal and civil cases, students will gain the ability to analyze and evaluate the effects of the legal system on our society.

Philosophy: In attempting to create lifelong learners and effective citizens, the philosophy behind this course is to familiarize students with the concepts, theories, and practices present in the study of law and criminology. The course is designed to provide students with an understanding of the criminal justice system. Understanding crimes, as well as consequences, allows students to gain a further civic

understanding of our legal system and its impact on society as well as the effects of crime on victims, the criminal, and society.

5 Credits: Full Year Course.

Government

Prerequisites: Juniors and Seniors only

Throughout this course students will learn about the basic functions and structure of our government. A strong emphasis will be placed on applying principles learned in class to current issues. The primary objective of this class is to help students develop critical thinking skills as they become more actively aware of the government policies and practices that affect every aspect of life in the United States. Students will go beyond the acquisition of facts to develop skills for collection, in-depth analysis, and interpretation of information important to the student of government.

Students in this course will engage in analysis of primary sources, including those specific to the founding of the United States, speeches, landmark Supreme Court cases, and relevant political commentaries. Furthermore, students will develop a deep understanding of issues pertinent to the upcoming Presidential election and why civic participation is not only a right, but a duty.

2.5 Credits: Half year Course paired with political science.

Political Science

Prerequisites: Juniors and Seniors only

The objective of this course is to prepare students with a basic understanding of the American system of government and how they can actively be informed and participate in it. Students will examine what powers and rights citizens receive through the government and the Constitution. They will also understand what responsibilities people have as citizens and how they can participate in our democratic society. The course will allow students to form their own political views by exploring how political parties are designed in the United States and in other countries. Students will develop critical thinking skills as they become more actively aware of government policies. Moreover, they will debate and discuss current events based on principles already learned in class.

2.5 credits: Half Year Course paired with Government.

Geography

Prerequisites: None

The objective of this course is to study the Geography of the world's peoples, places, and environments, with a focus on world regions. Students will learn about climates and terrain of various regions as well as political and economic differences including government, GDP, and population. Particular emphasis is placed on students' understanding and applying geographic concepts and skills to their daily lives.

2.5 Credits: half year Course.

Philosophy

Prerequisites: Juniors and Seniors only

The objective of this course is to introduce students to various philosophies throughout history in order for students to develop stronger critical thinking skills and specifically philosophical thinking. The course focuses on several characteristic examples and the philosophy of numerous philosophers through history, thereby illustrating how classical and modern thinkers formulate their questions and how they

approach issues ranging from religion, scientific, political, metaphysics, and ethics. In addition, the course will provide a preliminary orientation about the notion of philosophical argument, its various forms and the ways arguments should be analyzed and developed. At various times students will be examining graphic novelizations of different philosophers. Students will also examine how philosophers develop philosophical ideas through the influence of previous and/or contemporary philosophers. In order to accomplish this, students will have to make connections between philosophers and time periods. At the completion of the course students will be able to develop a philosophy that applies to them and substantiate their arguments in a logical fashion.

5 Credits: Full Year Course.

Multicultural Studies

Prerequisites: *Juniors and Seniors only*

Students will develop a personal and historical understanding of issues related to race, social class, gender, sexual orientation, disabilities & culture; and how these issues are used in the distribution of power and privilege in the US. This is a current events based class, in which students will examine domestic and international news stories. We will engage in an analysis of complex problems in social justice using a comparative approach. Students will begin our analysis in the US and compare issues of culture with other nations around the globe. Students will examine and develop solutions to social issues in detail.

5 Credits: Full Year Course.

Human Rights and Genocide Studies

Prerequisites: *Juniors and Seniors only*

Description: This course will emphasize the study of human rights issues and genocidal tendencies around the world. The goal is to bring awareness to past and ongoing issues facing the U.S. and international communities. Students will be made aware of the history, current international organizations, governments, nonprofits, and the media who aid in spreading awareness to the issues facing the world. Students will create plans to help put an end to the atrocities facing the communities of the U.S. and the world. Students will become part of an international support system which is the best hope that humankind has in preventing genocide, torture, religious persecution, and other assaults upon human dignity and rights. Genocide study will include, but not be limited to: Darfur, Rwanda, Armenia, Native Americans, Syria, Iran, and Iraq.

5 Credits: Full Year Course.

Advanced Academy Introduction to Law

Prerequisites: *Tenth grade only who have been accepted into the advanced law track*

Description: This course will examine legal ideas, legal reasoning and the legal process. Constitutional law will be the cornerstone of the class. Students will write briefs and analyze cases, an essential skill for anyone interested in the legal profession. This course will also study the fundamental basis of the American legal system: the US Constitution. Students will study the tenets of American constitutional law as well as the historical and current debates about the scope and meaning of the Constitution in relation to the Supreme Court's role in the governing of the United States. Supreme Court decisions will be analyzed with consideration for the historic context, past interpretation, and court's overall

consistency in following prior precedent. Students will be able to look at current Supreme Court cases from an analytical standpoint and formulate reasoned hypotheses on how the court will rule in current cases while considering its ideological makeup.

Philosophy: The ultimate goal of the course is to provide students with a sense of belonging in society through empowerment with knowledge of the constitutional law. By providing students with a non-adversarial view of the law, this course will provide an understanding of the fundamental principles of authority, fairness, justice and responsibility that underlie our legal system. Finally, this course will enhance the student's development in other subjects by way of identifying, analyzing and explaining the ways in which Americans have used social norms and laws to communicate and express points of view, utilized problem solving skills, experiment with new ideas to improve society, and relied upon research, reason, and truth to nurture the individual and our role in the greater society.

5 Credits – Full Year Course.

Advanced Academy Criminology

Prerequisites: *Juniors only who have been accepted into the advanced law track*

Description: In attempting to create lifelong learners and effective citizens, the philosophy behind this course is to familiarize students with the concepts, theories, and practices present in the study of criminology. The course is designed to provide students with an understanding of the criminal justice system. Understanding crimes, as well as consequences, allows students to gain a further civic understanding of our legal system and its impact on society as well as the effects of crime on victims, the criminal, and society. The course will also encourage students to determine what causes crimes by examining different sociological, psychological, and biological theories behind criminal behavior. As students understand why criminal behavior occurs, they can enhance their understanding of society's response to crime and methods for alleviating criminal behavior. In determining the causes and effects of criminal behavior, the workings of the criminal justice, and differences between criminal and civil cases, students will gain the ability to analyze and evaluate the effects of the legal system on our society. Students will be able to make informed and effective decisions in the future as knowledgeable citizens.

5 Credits – Full Year Course.

Advanced Academy Criminal Justice and Society

Prerequisites: *Seniors only who have been accepted into the advanced law track*

Description: This course examines law in everyday life. Law infuses popular media, constructs (and constraints) identity, and pervades language. In turn, media, identity, and discourse construct our understandings of law. Particular attention is paid to the law's role in practices and discourses of resistance and in exerting social control.

5 Credits – Full Year Course.

COURSE DESCRIPTIONS

Science

Core Courses

Biology

Prerequisites: *None*

Description: The aim of this course is to help students build an understanding of modern biology. Students will learn about the origin of life and the process of evolution through natural selection. They will then progress to learn about molecular biology, cellular biology and processes, genetics, ecology, and biotechnology. This course also serves as a strong foundation for Anatomy and Physiology, Marine Science and Genetic Engineering.

A key goal of the course is to give students an integrated insight into the modern scientific view of the world. The separation of the sciences into the discrete disciplines of physics, chemistry and biology is becoming less useful; our world is simply not divided up in that way. By the conclusion of this course students should have a perspective on the world, and how it works, which will empower them to follow their interests in any direction after high school, either on to college/university or their career.

5 Credits, Full Year Course with Lab

Biology Accelerated

Prerequisites: *Grade of B or higher in 8th grade science and teacher recommendation*

Description: Accelerated Biology covers topics typically covered in a high school biology course and prepares students for Advanced Placement Biology. Students should expect to use higher-order thinking skills to understand the course content conceptually. Rigorous independent study is required to enhance student comprehension and appreciation of the frequent class activities. Skills that students will develop during this class will include: Cause and effect analysis, Timeline interpretation and creation, Guided Reading Activities, Essay writing, Written interpretations of observations, Oral presentations, Problem solving, Use of logic, Graph creation and interpretation, Scenario Interpretation, Model interpretation and creation, Diagram interpretation, Concept map creation highlighting connections between concepts. Labs are integrated throughout this entire course and utilized whenever possible and available. The lab experiences will require to demonstrate and apply knowledge of biology to work through the processes and objectives of each lab to reach a goal, the completion of each lab.

5 Credits, Full Year Course with Lab

AP Biology

Prerequisites: *Grade of B or higher in Biology Accelerated or Chemistry Accelerated, or Grade of A or higher in regular Biology or Chemistry, and teacher recommendation*

Description: This course focuses on four underlying principles called Big Ideas. These Big Ideas encompass the core scientific principles, theories, and processes governing living organisms and biological systems. Students who take this course will also develop advanced inquiry and reasoning skills, such as designing a plan for collecting data, analyzing data, applying mathematical routines, and connecting concepts in and across domains. Students by the end of this course will be prepared and expected to take the AP test in May.

10 Credits, Full Year Course with Lab

Chemistry

Prerequisites: *Biology*

Description: Chemistry is a quantitative approach to the study of the structure and behavior of matter, as well as an introduction to chemistry. The topics of study include measurements, conversion units, significant notations, the atomic structure, atomic theory, electron configurations, periodic table trends, types of bonds, molecular bonding, writing chemical formulas and naming these chemical formulas, chemical reactions, mole theory, and stoichiometry.

5 Credits, Full Year Course with Lab

Chemistry Accelerated

Prerequisites: *Grade of B or higher in Biology and teacher recommendation*

Description: This course covers all topics that are in the regular chemistry course however students in the accelerated course will be expected to expand their critical thinking and reasoning skills. Students will especially be able to utilize these advanced skills during laboratory experiences.

5 Credits, Full Year Course with Lab

AP Chemistry

Prerequisites: *Grade of B or higher in Chemistry Accelerated or Grade of A or higher in regular Chemistry and teacher recommendation*

Description: The course provides a rigorous quantitative approach to advanced topics of chemistry in preparation for the Advanced Placement exam. The course begins with a review of basic concepts, then progresses to kinetics, equilibrium, electrochemistry, thermodynamics, quantum mechanics, and radioactivity. A major goal of the course is to prepare students to take the Advanced Placement test in May.

10 Credits, Full Year Course with Lab

Physics

Prerequisites: *Chemistry and taking Algebra II concurrently*

Description: The objective of this course is for students to understand the physical functioning of the world around them and use math skills to predict it. Topics included in this course are motion, forces, gravitation, energy, momentum, waves and sound, light, and electricity. Students will explore these topics through hands-on and virtual experiments.

5 Credits, Full Year Course with Lab

AP Physics

Prerequisites: *Grade of B or higher in Physics and Algebra II and teacher recommendation*

Description: This course is a college-level, algebra-based Physics course intended for students planning to study science, engineering, or other technical disciplines beyond high school. The objective of this course is to prepare students for the Spring AP Physics 1 Exam.

Topics are set by the College Board and include kinematics, dynamics, circular motion, gravitation, energy, momentum, rotation, simple harmonic motion, mechanical waves, sound, electrostatics, and DC circuits. Students will learn through hands-on laboratory investigations, classroom activities, design projects, and real-world applications. Students will be expected to design and implement their own experiment to answer a question, develop mathematical models, and engage in oral and written scientific argumentation.

10 Credits, Full Year Course with Lab

Environmental Science

Prerequisites: *Biology*

Description: In this course students use science to study and understand the complex interactions between living things and their environment, especially the impact that humans have. The course addresses all of Earth's systems: rock/soil, water, air, and living things. Topics include the atmosphere, climate change, the carbon cycle, air pollution, aquatic ecosystems, biodiversity, natural resources, renewable energy, and waste.

5 Credits, Full Year Course with Lab

Physical Science

Prerequisites: *Biology*

Description: The purpose of this course is to provide students with an introduction to the sciences of Chemistry and Physics, emphasizing science as it relates to real life situations. Students will explore topics including matter, states of matter, atoms, compounds and molecules, chemical reactions, solutions, motion, forces, energy, waves, electricity, and magnetism.

5 Credits, Full Year Course with Lab

Electives

Marine Science

Prerequisites: *Juniors and Seniors only, biology and chemistry with a grade of C or higher*

Description: This course demands successful completion of physics (optional), chemistry, and biology. Introduction to marine science seeks to successfully blend the physics and chemistry of marine science with the ecosystems and organisms that are more famous for living in them. Introductory marine science courses often focus primarily on the physical features of Earth and its seawater. Students entering the course will find that this course takes a holistic approach and seeks to tell a story about the ocean. The physical and chemical features of marine science make life possible in the seas and on land. Each unit comprises biological and physical science of distinct marine ecosystems, and the human driven effects that influence them.

5 Credits, Full Year Course

Microbiology

Prerequisites: *Juniors and Seniors only; Biology with a grade of B or higher*

Description: Fundamentals of microbiology allows students to survey the microbial world; interactions between microbes and host; microbial diseases of humans; the environmental and economic impact of microorganisms. This course provides background in basic and applied microbiology with emphasis on the role microorganisms play in human health and life.

5 Credits, Full Year Course

Genetics

Prerequisites: *Juniors and Seniors only, Biology with a grade of B or higher*

Description: This course is a natural extension of concepts and knowledge learned in Biology. Students will revisit the basic principles and concepts of genetics, including the structure and function of DNA, proteins, genes, and chromosomes. Special attention will be given to understanding the technology and application of contemporary methods such as karyotyping, genetic testing, DNA electrophoresis, and the polymerase chain reaction. A variety of laboratory procedures will be conducted that represent common methods used in genetic analysis. An independent research paper in genetics will be assigned to provide students the opportunity to pursue their own individual interests.

5 Credits, Full Year Course

Forensic Science

Prerequisites: *Seniors only, chemistry and physics strongly preferred*

Description: Forensic science can be defined as the application of science to the law. In criminal cases forensic scientists are often involved in the search for and examination of physical traces which might be useful for establishing or excluding an association between someone suspected of committing a crime and the scene of the crime or victim. Due to a crime scene's diverse characteristics, forensic science can be considered a combination of both a social science and a physical science. Some of the sciences that are useful during a crime scene investigation may include physics, chemistry, biology, and psychology. Forensic Science presents a way for students to learn science through inquiry and critical thinking skills and to explore the path of careers in forensic science. This course will have students using inductive and deductive reasoning in order to apply the scientific method to solve the mysteries before them.

5 Credits, Full Year Course

Biopsychology

Prerequisites: *Juniors and Seniors only, Grade C or better in Biology*

Description: This course outlines the major sub disciplines of the field, including such topics as the brain and neuroscience, behavioral genetics, cognitive and social development, perception, learning, memory, decision-making, language, consciousness, emotions, motivation, psychological disorders, social identity, interpersonal interactions, and group/cultural processes.

5 Credits, Full Year Course

Anatomy and Physiology

Prerequisites: *Juniors and Seniors only, Grade B- or higher in Biology*

Description: Anatomy and physiology is designed to introduce students to the structure and function of the human body. The scope of the course includes topics such as animal cell structure and biochemistry, tissue organization and function, and mammalian organs and organ systems as they relate to human biology. Extensive laboratory work, including a major mammalian dissection, is required. The course provides a strong background for students entering careers such as nursing, medical technology, and sports medicine.

5 Credits, Full Year Course

Advanced Academy Dynamics of Health Care/ Emergency and Clinical Care

Prerequisites: *Sophomores only, must be in the Biomedical Advanced Track*

Description: Students explore community health and learn about components of the healthcare field of employment and human disease. In this course students will utilize research skills to examine health problems, disease processes, and language related to medical science and allied health.

5 Credits, Full Year Course

Advanced Academy Medical Terminology/Anatomy & Physiology I

Prerequisites: *Juniors only, Must be in the Biomedical Academy, Dynamics of Healthcare*

Description: Students will examine health problems, disease processes, and language related to medical science and allied health with an emphasis on word analysis, construction, definition, pronunciation, spelling, and standards abbreviation. Students will explore the human body systems, homeostatic balance, the relationship between structure and function, and the interrelationships between body systems.

5 Credits, Full Year Course

Advanced Academy Medical Terminology/Anatomy & Physiology II

Prerequisites: *Seniors only, Must be in the Biomedical Academy, Medical Terminology/Anatomy & Physiology I*

Description: Students will continue their exploration of the human body systems, homeostatic balance, the relationship between structure and function, and the interrelationships between body systems.

5 Credits, Full Year Course

Advanced Academy Biopsychology

Prerequisites: *Sophomores only, Must be in the Biopsychology Academy track, teacher recommendation*

Description: An advanced pace to psychological science-- the study of behavior and mental processes. This course outlines the major sub disciplines of the field, including such topics as the brain and neuroscience, behavioral genetics, cognitive and social development, perception, learning, memory, decision-making, language, consciousness, emotions, motivation, psychological disorders, social identity, interpersonal interactions and group and cultural processes.

5 Credits, Full Year Course

Advanced Academy Biopsychology of Adjustment

Prerequisites: *Juniors only, Must be in the Biopsychology Academy track, teacher recommendation*

Description: This course provides an introductory examination of the applied psychological theory and research concerning mental health and wellbeing. Subjects including, but not limited to, stress and coping, identity, personal growth, communication, interpersonal relationships, and career issues.

5 Credits, Full Year Course

Advanced Academy Child and Adolescent Psychology

Prerequisites: *Seniors only, Must be in the Biopsychology Academy track, teacher recommendation*

Description: This course focuses on development from conception through the middle years of childhood. The developmental aspects of the child's cognitive, personality, social, and physical growth are presented. The impact of psychological and biological factors on the child is investigated. Additionally, cross-cultural comparisons of child development will be integrated throughout the course.

5 Credits, Full Year Course

Advanced Academy Principles of Engineering

Prerequisites: *Sophomores only, Must be in the Engineering Academy track, teacher recommendation*

Description: Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, and automation. Students develop skills in problem solving, research, and design while learning strategies for design process documentation, collaboration, and presentation.

5 Credits, Full Year Course

Advanced Academy Introduction to Engineering Design

Prerequisites: *Juniors only, Must be in the Engineering Academy track, Principles of Engineering*

Description: Students dig deep into the engineering design process, applying math, science, and engineering standards to hands-on projects. They work both individually and in teams to design solutions to a variety of problems using 3D modeling software, and use an engineering notebook to document their work.

5 Credits, Full Year Course

Advanced Academy Computer Science and Software Engineering & Computer Integrated Manufacturing

Prerequisites: *Seniors only, Must be in the Engineering Academy track*

Description: Computer Science and Software Engineering runs for the first semester and opens doors in any career with computer science. In CSE, students create apps for mobile devices, automate tasks in a variety of languages, and find patterns in data. Students collaborate to create and present solutions that improve people's lives and change the world. Computer Integrated Manufacturing is a course students

take during the second semester of their senior year. This course illuminates the opportunities related to understanding manufacturing. At the same time, it teaches students about manufacturing processes, product design, robotics, and 14 automation. Students can earn a virtual manufacturing badge recognized by the National Manufacturing Badge system.

5 Credits, Full Year Course

COURSE DESCRIPTIONS

World Language

Core Courses

Spanish I

Prerequisites: *None*

Description: This course will provide the students with a general introduction to the Spanish language: sound system, pronunciation, functional vocabulary related to everyday life, cultural information and basic grammatical structures. Emphasis will be on the acquisition of four skills: listening, speaking, reading and limited writing. There are two main objectives to the course. Foremost is to give the students the ability to carry on a simple conversation. The second is to provide the students with instruction that teaches a basic understanding of Spanish culture, vocabulary, and grammatical concepts.

5 Credits, Full Year Course

Spanish II

Prerequisites: *Spanish I or teacher recommendation*

Description: The objective of this course is to continue to develop the basic communicative verbal and written skills of the Spanish language learners. Students will continue to expand their vocabulary and grammar skills while exploring different topics related to the Spanish-speaking world. At this level, the past tense and the future tense are introduced in real life situation concepts for a deeper understanding. Students will be able to compare the similarities and differences of the target language

culture with their own through the exploration of the products, practices, and perspectives of the Spanish culture.

5 Credits, Full Year Course

Spanish III

Prerequisites: *Spanish II or teacher recommendation*

Description: In Spanish III, students continue to develop their communicative competence by interacting orally and in writing with other Spanish speakers, understand oral and written messages in Spanish and making oral and written presentations in Spanish. They communicate on a variety of topics at a level commensurate with their study, using more complex structures in Spanish and moving from concrete to more abstract concepts. They comprehend the main ideas of the authentic materials that they listen to and read and are able to identify significant details when the topics are familiar. Students develop the ability to discuss in Spanish topics related to historical and contemporary events and issues.

5 Credits, Full Year Course.

Spanish IV

Prerequisites: *Spanish III or teacher recommendation*

Description: This course is an introductory literature course where students develop higher-order thinking skills and knowledge of literary chronology, techniques, and interpretation. This course includes Peninsular and Latin American Literature and may be taught by genres or by historical periods. The students will be expected to read literature in its original language and discuss it analytically. The students should be able to do a thorough reading of literary texts of all genres in Spanish and to analyze critically the form and content of literary works orally and in writing using appropriate literary terminology. Also, the students should be able to convey their ideas and opinions in speaking and writing with a total control of basic grammar.

5 Credits, Full Year Course.

AP Spanish Language and Culture

Prerequisites: *Teacher recommendation and successful completion of a placement test*

Description: This course follows the guidelines of the College Board AP Spanish Language and Culture course. It is designed to solidify previously learned Spanish as well as further the development of reading, writing, speaking and listening in Spanish. At this level, students are expected to not only understand written and spoken Spanish, but also be able to analyze and synthesize ideas in the target language. The course is conducted exclusively in Spanish and gives opportunities for students to demonstrate the three modes of communication (Interpretive, Interpersonal and Presentational). The students' active participation will increase cultural awareness, vocabulary and preparedness for the AP Spanish Language and Culture exam in May.

5 Credits, Full Year Course

Electives for Spanish

Diversity and Culture traditions in Latin America

Prerequisites: *Spanish III*

Description: This course is designed to introduce students to the richness and diversity of Latin American cultures, the diversity and traditions in the different areas of Latin America. The course familiarizes students with the vitality of Latin American art and literature. Our final objective is to relate Latin American culture with "cultura latina" in the United States. The course provides a framework for more advanced studies on Caribbean and Latin American themes.

5 Credits, Full Year Course

Latin America Film

Prerequisites: *Spanish II*

Description: This course examines recent film from Latin America, studied in social, traditional, and cultural context. The films are from a variety of countries, and are studied, together with readings, and other cultural materials, through class discussions and written assignments. Conducted entirely in Spanish.

5 Credits, Full Year Course

Art in Latin America

Prerequisites: *Spanish III*

Description: This course will provide an in-depth discussion of pivotal 20th century Latin American artists and their contributions in order to establish a wider and more complex vision of Modern Art. Latin American new world cosmopolitan vocabularies through figurative, geometric abstraction, constructivist and conceptual styles, whereas other artists developed unique expressions of national identity and national imaginaries in reaction to international modernist tendencies. Therefore, the course will address issues such as modernism and the avant-garde, the relationship between social realism and politics, the expression of specific national identities versus the adoption of universal cosmopolitan trends, Surrealism and the perception of the "fantastic" in Latin American art, new world geometric abstraction, abstraction vs. figuration in the 1950s and 1960s, conceptual and non-objective art, exile and politics and other trends since the 1970s. Key artists such as Rivera, Orozco, Siqueiros, Torres-Garcia, Matta, Guayasamin, de Szyslo, Berni, Oiticica, Otero, and Cruz-Diez as well as women artists Tarsila do Amaral, Kahlo, Izquierdo, Varo, Carrington, Pelaez, Gego, Clark, Minujin, Salcedo who made unique contributions to Latin American art will be studied.

5 Credits, Full Year Course

French I

Prerequisites: *None*

Description: This course will provide the students with a general introduction to the French language: sound system, pronunciation, functional vocabulary related to everyday life, cultural information and basic grammatical structures. Emphasis will be on the acquisition of four skills: listening, speaking, reading and limited writing. There are two main objectives to the course. Foremost is to give the students the ability to carry on a simple conversation. The second is to provide the students with instruction that teaches a basic understanding of French culture, vocabulary, and grammatical concepts.
5 Credits, Full Year Course.

French II

Prerequisites: *French I*

Description: The objective of this course is to continue to develop the basic communicative verbal and written skills of French language learners. Students will continue to expand their vocabulary and grammar skills while exploring different topics related to the French-speaking world. At this level, the past tense and the future tense are introduced in real life situation concepts for a deeper understanding. Students will be able to compare the similarities and differences of the target language culture with their own through the exploration of the products, practices, and perspectives of the French culture.

5 Credits, Full Year Course.

French III:

Prerequisites: *French II*

Description: In French III, students continue to develop their communicative competence by interacting orally and in writing with other French speakers, understand oral and written messages in French and making oral and written presentations in French. They communicate on a variety of topics at a level commensurate with their study, using more complex structures in French and moving from concrete to more abstract concepts. They comprehend the main ideas of the authentic materials that they listen to and read and are able to identify significant details when the topics are familiar.

5 Credits, Full Year Course.

COURSE DESCRIPTIONS

Visual and Performing Arts

Core Courses

Visual Art I

Prerequisites: *None*

Description: Visual Art I is an elective open to interested students who wish to study a wide range of basic art media and forms of creative expression, and to broaden their knowledge of art history and their personal aesthetic. Visual Art I provides a format for the appreciation of ideas and concepts in addition to media skill development. Students will learn the basic Art Elements and Design Principles, how to critically view an artwork, as well as being exposed to a wide range of art related careers. Students will engage in critical thinking which will prepare them for life learning, and aid them in success in their college careers. They will solve the problems of making an urban community beautiful by not only adding to it, but by reconsidering their ideas of beauty and their personal aesthetic.

5 Credits, Full Year Course

Visual Art II

Prerequisites: *Visual Art I with a recommended grade of B or higher*

Description: Visual Art II is an elective open to interested students who wish to continue studying a wide range of basic art media and forms of creative expression, and to broaden their knowledge of art history and their personal aesthetic. Visual Art II provides a format for the appreciation of ideas and concepts in addition to media skill development. Students will learn to expand on past knowledge of Art Elements and Design Principles, how to more critically view an artwork, as well as being exposed to a wide range of art related careers. Students will engage in critical thinking which will prepare them for life learning, and aid them in success in their college careers. They will solve the problems of making an urban community beautiful by not only adding to it, but by reconsidering their ideas of beauty and their personal aesthetic.

5 Credits, Full Year Course

Studio Art I

Prerequisites: *Visual Art II with a recommended grade of B or higher*

Description: Studio Art I is an elective designed for students who are seriously interested in the practical experience of art. All Studio Art I students are expected to become independent thinkers and to apply their knowledge (gained from Visual Art I & II Courses) of the Elements and Principles to their work (regardless of media) in order to demonstrate mastery of advanced level design skills and concepts. Ongoing critical analysis through group and individual critiques provide students with opportunities to learn to analyze their own work and their peers' work.

5 Credits, Full Year Course.

Studio Art II

Prerequisites: *Studio Art I with a recommended grade of B or higher*

Description: In Studio Art II students will focus on the "total work of art" — the concept, the composition and technical skills demonstrated, and the realization of the artist's intentions. Studio Art II is an elective designed for students who are seriously interested in the practical experience of art. All Studio Art I students are expected to become independent thinkers and to apply their knowledge (gained from Visual Art I & II Courses) of the Elements and Principles to their work (regardless of media) in order to demonstrate mastery of advanced level design skills and concepts. Ongoing critical analysis

through group and individual critiques provide students with opportunities to learn to analyze their own work and their peers' work.

5 Credits, Full Year Course.

Music I

Prerequisites: None

The purpose of Music Appreciation is to provide an introductory course that will teach students about the elements of music and expose them to a variety of genres and historical periods. This course is designed to help the students develop music skills that they can use in everyday life, or apply in any of the level two music classes. The purpose of Music Theory is to enhance music skills and basic music fundamentals. The essential aspects of melody, harmony, rhythm, and form are studied. Throughout the course of the year students will study basic notation, scales, key signatures, intervals, triads, cadences, non-chord tones, form part-writing and analysis of a score. Aural dictation and ear training are also an integral part of the course and will be taught throughout the year. Individual creativity is nurtured through both rhythmic and melodic composition. This course is highly recommended for students who wish to be in a musical ensemble or piano class.

Description: 5 Credits, Full Year Course

Piano Lab I

Prerequisites: None

Description: The purpose of Piano Lab is for students to develop basic piano playing skills, or expand on their existing ability. Instructional time will be spent both on and off the keyboards. While performing on the piano is the primary goal of this class, the basics of music theory, such as notation, rhythm, melody and harmony, will also be practiced. Students who wish to take this class must have an understanding of how to read music.

5 Credits, Full Year Course.

Piano Lab II

Prerequisites: Piano Lab I

Description: Piano lab II is a more rigorous continuation of Piano Lab I. Its purpose is to reinforce music theory, notation, rhythm, melody, and harmony; while playing piano pieces at a higher skill level. This class will run similarly to Piano Lab I, with the added expectation that students will perform in the class, in groups, and publically throughout the year.

5 Credits, Full Year Course.

Chorus/Mixed Choir I

Prerequisites: None

Description: The purpose of Mixed Choir is to explore choral music from a wide variety of cultures and time periods through study and performance. The core curriculum emphasizes the basics of proper vocal technique, sight-reading, music theory, and music history. Students in Mixed Chorus are expected to participate in several performances outside of the school day as a major part of their grade.

5 Credits, Full Year Course.

Audition Chorus/Concert Choir I

Prerequisites: *Must Audition and be selected by instructor*

Description: This class will be offered to dedicated music students who are interested in vocal performance. Students are expected to participate in several outside of school performances throughout the school year as a major part of their grade. The purpose is to focus on skill building, including sight-singing, breath control, posture, diction, and part independence. Preparation for performances includes a study of the historical and cultural significance of diverse musical genres. Students employ 21st century skills, such as collaboration and digital research, as they explore the development of music over time. This class will be assessed by performances, set goals, and engage in self-evaluation throughout the course.

5 Credits, Full Year Course.

Concert Choir II

Prerequisites: *Must Audition and be selected by instructor, Concert Choir I*

Description: Concert Choir II is an upper-level, intensive performance-based ensemble class. This section of the class will be offered to dedicated music students who are interested in vocal performance who have already served a year in Concert Choir I. Students are expected to participate in several outside of school performances throughout the school year as major part of their grade.

5 Credits, Full Year Course.

Mixed Choir II

Prerequisites: *Must Audition and be selected by instructor, Mixed Choir I*

Description: This is a class for students who have already taken Mixed Choir I, but would like to continue choral studies in a low risk, non-auditioned ensemble. The purpose of Mixed Choir is to explore choral music from a wide variety of cultures and time periods through study and performance.

The core curriculum emphasizes the basics of proper vocal technique, sight-reading, music theory, and music history. Students in Mixed Chorus are expected to participate in several performances outside of the school day as a major part of their grade.

5 Credits, Full Year Course.

Treble Choir

Prerequisites: *None*

Description: At AULCS we have many treble singers who would like to be in a higher skilled ensemble. The purpose of Treble Choir is to be an ensemble of singers who only sing in the treble clef, who would study choral literature at an intermediate level. The curriculum is a deeper exploration of vocal technique, music theory, and music history through the study of a wide variety of choral music written for treble voices.

5 Credits, Full Year Course.

Concert Band

Prerequisites: *None*

Description: The purpose of Concert Band is to create an ensemble that provides students with learning and performance opportunities on wind and percussion instruments. The primary focus is on the development, continuation, and expansion of basic playing skills. Students in Concert Band are expected to participate in several performances outside of the school day as a major part of their grade.

5 Credits, Full Year Course.

COURSE DESCRIPTIONS

Career & Life Skills/Technology Courses

Technology Courses

Computer Applications

Prerequisites: *None*

Description: This course affords an opportunity to build and refine knowledge and skills in the IT world. This course is laid out in a logical, conceptual progression. The student begins by learning about the basic concepts of information technology, progresses to applications that will likely be used in the workplace, and finishes by learning about the internet and computer networks that runs our daily life. Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace. Students implement personal and interpersonal skills to prepare for a rapidly evolving workplace environment. Students enhance reading, writing, computing, communication, and reasoning

skills and apply them to the information technology environment: using Microsoft Windows and Office Suite applications. This course also covers computer history, hardware, software, and operating concepts.

5 Credits, Full Year Course

Computer Programming

Prerequisites: *Computer Applications or teacher recommendation*

Description: This course will introduce student to basic computer programming through block concepts. Course work will require students to develop and apply formulas and macros in Excel to produce comprehensive spreadsheets and pivot tables. The students will receive hands on experience in using the Hour of Code, CodeHS, and Scratch programming software. Also, they will lead project based learning teams to program and integrate microprocessors, servo motors, and sensors to create robots and systems.

2.5 Credits, Half Year Course

Graphic Design and Video Editing

Prerequisites: *Computer Applications or teacher recommendation*

Description: This course explores the key design principles to create logos, posters, personal identity, and branding. The student utilizes both hand drawn art as well as digital software to create, modify, and enhance artwork and photos. Student projects have strong service based learning component that provides purpose and meaning and integrates the display of their work in the school and community. The student will receive hands on experience in Adobe Illustrator and Photoshop. The video editing component of this course will teach each learner how to prepare for making a movie/video, collect digital video, upload digital video to a computer, edit the video and audio, and then produce a final movie. Each student will be taught the basic understand of operating a video camera, the basic principles of how to capture great video and audio and how to tell a story by combining video and audio.

5 Credits, Full Year Course.

Multimedia and Web Design

Prerequisites: *Graphic Design and Video Editing or teacher recommendation*

Description: This course is broken up into two parts. The first semester focuses on Web Design and then the second semester focuses on Multimedia. This course is designed for students interested in careers in the Media and Design industry focusing on the arts, media, and entertainment industry sector. Students will be introduced to industry standard tools, skills, and materials that they can manipulate as the primary means of creative expression. Students will explore basic applications of various multimedia tools to create visual, audio, and written projects in both digital and print format. Students will learn about local and regional opportunities in this career path and receive hands on experience in Adobe InDesign and Premiere Elements.

5 Credits, Full Year Course.

Advanced Academy IT Essentials

Prerequisites: *Sophomores only accepted into the Computer Systems Track*

Description: Students will engage in a hands-on, career-oriented learning experience with an emphasis on practical activities to help students develop fundamental computer and career skills. IT Essentials helps students prepare for entry-level ICT career opportunities and the CompTIA A+ certification, which helps students to differentiate themselves in the marketplace and advance their careers. Students will become members of the Cisco Net Academy and work on online assignments for certifications.

5 Credits, Full Year Course.

Advanced Academy CCNA Routing and Switching I & II

Prerequisites: *Juniors only accepted into the Computer Systems Track, IT Essentials*

Description: Students will learn comprehensive networking concepts, from network applications to the protocols and services provided to those applications by the lower layers of the network. Students will progress from basic networking to more complex enterprise and theoretical networking models later in the curriculum ending the course with a CCNet Certification. Students will become members of the Cisco Net Academy and work on online assignments for certifications.

5 Credits, Full Year Course.

Advanced Academy CCNA Security

Prerequisites: *Seniors only accepted into the Computer Systems Track, CCNA Routing and Switching I & II*

Description: Students will be provided with an introduction of the core security concepts and skills needed for the installation, troubleshooting, and monitoring of network devices to maintain the integrity, confidentiality, and availability of data and devices ending with a CCNA Security Certification. Students will become members of the Cisco Net Academy and work on online assignments for certifications.

5 Credits, Full Year Course.

Business

Personal Finance

Prerequisites: *Required course for graduation, Juniors and Seniors only*

Description: The objective of this course will to have students become familiar with the terms and concepts necessary to understand and make responsible long term financial decisions with an emphasis on budgeting, saving and investing. Exposure to the financial system will be made so students are familiar with their financial options and choices. Group activities will be employed to have students understand the dynamics of their financial choices. Projects utilizing business and occupational choices will be emphasized and encouraged.

2.5 Credits, Half Year Course

Intro to Business MCC

Prerequisites: *Seniors only for Middlesex County College Credit, Personal Finance, and teacher recommendation*

Description: This objective of this course will be to introduce students to the fundamentals of the business system. This will include the basics of Economics, banking, insurance, marketing, budgeting, credit and finance. Projects will be utilized to have the students use creativity to create their own concept businesses including a detailed business plan. Real world examples and connections will be emphasized and students will be encouraged to make connections to their future financial decisions. Students at the end of this course will take Intro to Marketing MCC to gain college credit in each of these course at Middlesex County College.

2.5 Credits, Half Year Course.

Intro to Marketing MCC

Prerequisites: *Seniors only for Middlesex County College Credit, Introduction to Business MCC, and teacher recommendation*

Description: The objective of this course is intended to introduce students to the essentials of marketing. At the end of this course, students should be able to analyze the root marketing problems and propose a marketing plan that includes both a strategy (who will be targeted and how the firm's offering should be positioned), and a set of tactics (recommendations for product and service design, branding, pricing, promotion, and distribution), which implement the strategy. The semester project will be to develop a marketing plan encompassing all aspects of a product or service introduction into appropriate markets. After successful Completion of this course, students will gain college credits in both this course and introduction to Business MCC at Middlesex County College.

2.5 Credits, Half Year Course.

Intro to Business

Prerequisites: *None*

Description: The objective of this course is to familiarize students with the necessary business knowledge to understand vocabulary, terminology, and basic concepts of the business system. Basics of banking, insurance, economics, marketing, management, finance, corporate structure and investing will be introduced to students. Real world applications and activities will be utilized to make the subject matter relevant and applicable.

Description: **5 Credits, Full Year Course.**

Introduction to Accounting

Prerequisites: *Personal Finance or teacher recommendation*

Description: The objective of this course is to introduce students to the basic concepts and standards underlying financial accounting systems. Several important concepts will be studied in detail, including: revenue recognition, inventory, long-lived assets, present value, and long term liabilities. The course emphasizes the construction and interpretation of the basic financial accounting statements: the income statement, balance sheet, and cash flow statement.

5 Credits, Full Year Course.

Advanced Academy Introduction to Business

Prerequisites: *Sophomores only accepted into the International Business Track*

Description: This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects.

5 Credits, Full Year Course.

Advanced Academy Business Ethics

Prerequisites: *Juniors only accepted into the International Business Track, Advanced Academy Introduction to Business*

Description: Students will be able to make ethical decisions in business by providing them with a framework that they can use to identify, analyze, and resolve ethical issues in business decision making. In addition to individual decision making, business ethics and social responsibility are important parts of a firm's business strategy.

5 Credits, Full Year Course.

Advanced Academy International Marketing

Prerequisites: *Seniors only accepted into the International Business Track, Advanced Academy Business Ethics*

Description: Students will learn how to critically assess the implications of such forces and trends for marketing strategy and decision-making when organizations operate across borders. They will also develop international marketing decision-making.

5 Credits, Full Year Course.

Internship

Prerequisites: *Seniors only*

Description: The youth entrepreneurship program is a class provider by the Jewish Renaissance Foundation. The Jewish Renaissance Foundation is responsible for giving much needed assistance in Middlesex County. Our focus is to educate the youths in the Academy of Urban Leadership Charter School about other opportunities to prosper themselves financially and build skills to help them thrive later in life. Our goal is to connect their talents with this mission.

5 Credits, Full Year Course.

Planning Your High School Program

Please use the chart below as reference to the courses you should take towards high school graduation in each category. Please note not every course is offered every year and the courses are offered based on student need and interest.

Subject Area	Credits	Freshman	Sophomore	Junior Year	Senior Year
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	Needed	Year	Year		
English	20				
Math	15				
Science	15				
Social Studies	15				
World Language	10				
Art/Music	5				
Physical Education & Health	20				
Personal Finance	2.5				
Internship	5				
21st Century life and Career Skills	5				
Additional Electives	27.5				
Total	140				