

Oakbrook Graduation Requirements

Name _____

<u>Courses</u>	<u>Required Units</u>	<u>Completed</u>
English	4	_____
Mathematics	4	_____
Science	3*	_____
US History & Constitution	1	_____
Economics	1	_____
US Government	0.5	_____
Other Social Studies	1	_____
Fitness	1	_____
World Language	2**	_____
Computer Science	1***	_____
Christian Education	1	_____
Senior Project or AP Research	1	_____
Fine Arts	1****	_____
Electives	5	_____
TOTAL	26.5	_____

*Physical Science is an Oakbrook prerequisite for Chemistry and Physics but does not count toward the three required lab sciences required for graduation. Two of the sciences must be in different fields from chemistry, biology, and physics.

** College entrance will require at least two units of the same foreign language (Clemson University and other competitive schools require three.)

***Including 0.5 unit Middle School computer class and 0.5 unit of Graphic Design or Computer Science

**** Must be appreciation, performance, or history

Oakbrook Preparatory School Course Directory



2017-2018

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NOTE: Though a course may be listed in the catalog, credit requirements, student interest, and instructor availability determine whether or not a course will be scheduled in a given academic year.

Mission:

Built on a foundation of Christian Faith, Oakbrook Preparatory School educates students to be independent learners in a changing world.

Oakbrook Preparatory School does not discriminate on the basis of race, gender, age, national or ethnic origin, or religion.

works and original student choreographed pieces and then critique and reflect on the works while implementing the dance elements. Dance history will be reviewed and applied while using critical and creative thinking skills.

A student may receive 0.5 unit of fitness credit, up to 1 full fitness unit in grades 9-12, for playing two competitive sports within the same school year.

Fitness

Fitness & Health Grades 9-12 0.5 Unit

This course introduces the student to the concept of physical wellness, positive emotional growth, and social development. The purpose of the course is to educate students on the necessity of implementing a regular fitness and exercise plan that will help in preventing disease, enhance students' health, and improve their quality of life.

Strength Training & Health Grades 9-12 0.5 Unit

Strength Training and Conditioning is designed to teach students the techniques involved in designing a strong, well-defined, flexible, healthy body with more endurance. Each student is given an individualized program to reach individual goals. This class is designed for beginners to the serious athlete and a must for those interested in playing college sports.

Upper School Dance & Health Grades 9-12 0.5 Unit

Dance is an interactive and innovative class designed to provide students with the opportunity to learn and appreciate the art form of dance. One of the main standards explored is dance technique, which enables the students to become literate in dance fundamentals, in a variety of genres, and to be engaged in activities involving body awareness, movement exploration, and the understanding of the dance elements-body, time, space, and energy. Emphasis is also put on understanding choreographic principles, processes, and structures while acquiring the skills to create and interpret ideas and feelings through dance. Students will use critical and creative thinking skills, learn history and culture, connect dance with healthy living, and relate dance with other disciplines.

Advanced Dance Honors & Health Grades 9-12 0.5 Unit

Prerequisite: High School Dance and/or teacher recommendation

The Advanced Dance course is designed to emphasize and refine all main technique areas and master specific dance vocabulary related to the efficient and artful use of the body as an instrument. Students will understand and master all aspects of dance elements, such as body, time, space, and energy, by interweaving them skillfully throughout compositions, technique, and performance. A complex level of the choreographic principles will be studied and applied allowing students to create original dance works with coherence and aesthetic unity while directing a group of dancers through the choreographic process. Students will also analyze famous

Attendance

Class attendance is absolutely requisite. If, for any reason, there are more than eight absences in any class in any one semester, credit for the course will be subject to review by the Director. A loss of academic credit can occur if a student's total absences from class approach a level which is felt by the school to compromise her or his learning and the integrity of the course. Students who fail a course required for graduation must repeat and pass the course in order to graduate.

Minimum Course Load

All students in grades 9-11 are required to have a full class load. Seniors are required to have a minimum of four classes. In special circumstances, students may be given a period for study.

Levels of Courses

CP: These courses are designed to fulfill the requirements to earn a high school diploma and prepare students for college. They earn weighted grade points as designated on the South Carolina Uniform Grading Scale.

HONORS: These courses are designed to be academically challenging and preparation for advanced placement courses.

AP (Advanced Placement): These courses are designed to be academically challenging and are taught on the college level. AP courses follow the curriculum provided by the College Board. College Board National AP Exams are in May of each year. Students should contact specific colleges to learn of their specific policy concerning awarding advanced placement credit. Students will be responsible for purchasing their AP course materials including but not limited to their textbook, review book, and notebook. Textbooks can be digital or print versions. Students will receive information in the summer regarding the textbook name, edition, and cost. Books may be purchased on your own or rented from OPS .

Retaking the Same Course

Students may only retake the same course under the following conditions:

1. If the student earned a grade lower than a C in the course. The course must be retaken within the following academic year. In this case, the grades earned in both classes will be computed in the student’s GPA.
2. A student make retake any course that was taken prior to the ninth grade year. The course should be retaken within the following year. In this case, only the grade earned in the second course will be counted, regardless of which grade was the highest.

SAT/ACT

Students in upper grades will be offered specific instruction in preparation for the SAT (Scholastic Aptitude Test) and ACT (America College Testing). Students should plan to take one or both of these tests by the conclusion of their junior year. The PSAT is administered each fall to all students in grades eight through eleven.

Our College Guidance faculty will assist students with scholarship and college admission forms.

For more information regarding the SAT and ACT, visit their respective websites:

SAT— www.collegeboard.com

ACT— www.act.org

Graduation Requirements

Courses	Units
English/Language Arts	4
Mathematics	4
Science	3*
US History & Constitution	1
Economics	1
US Government	0.5
Other Social Studies	1
Fitness	1
World Language	2**
Computer Science	1***
Christian Education	1
Senior Project or AP Seminar	1
Fine Arts	1****
Other Electives	5

Worldview Foundations Grades 9-12 0.5 Unit
 An overview of the most common worldviews - presuppositions, assumptions, and frameworks through which we interpret reality. This course will further explain a Biblical Worldview: the existence of God, His character and purposes; why we exist and how we should respond. We begin to understand that our worldview encompasses all of life: our mindset informs our thinking and our thinking shapes our response to everything. Students will better understand what sets a Biblical worldview apart from that of others.

World Religions Grades 9-12 0.5 Unit
 World Religions will introduce students to the central beliefs of the world's major religions. The religions studied will consist of Hinduism, Buddhism, Confucianism, Shinto, Taoism, Judaism and Islam. The course will consist of lecture and discussion, with various writing assignments, quizzes and tests on each section. Students will have text for each section, which will be supplied by the instructor. Students should learn the foundations, characteristics and beliefs of each religion while gaining an appreciation and deeper understanding of Christianity.

Christianity and Ethics Grades 9-12 0.5 Unit
 Explores contemporary ethical issues through a Christian world view. Topics of discussion will include economics, poverty, social justice, war and peace, environmental issues, sexuality and medical ethics.

Apologetics Grades 10-12 0.5 Unit
 Students will learn how to have an answer for their Faith. We will be looking at frequently asked questions/ doubts of Christianity. We will read research of apologists. We will also be reading Case for Christ by Lee Strobel.

AP Computer Science Grades 11-12 1 Unit
Prerequisite: Intro to Computing or equivalent programming experience
AP Computer Science is a two-semester course in which students learn to design and implement computer-based solutions in several applications areas. Students learn to develop algorithms and data structures to solve problems using the programming language JAVA. This course satisfies computer science graduation requirements.

*Physical Science is a prerequisite for Chemistry and Physics but does not count toward the three required lab sciences required for graduation. The three sciences must be from at least two different fields (biology, chemistry, or physics).
** College entrance will require at least two units of the same foreign language (Clemson University and other competitive schools require three.)
***Including 0.5 unit Middle School computer class and 0.5 unit of Graphic Design or Computer Science.
**** Must be appreciation, performance or history

Dual Enrollment

In special circumstances, seniors may be allowed to take classes off-campus at local partner colleges/universities and receive Carnegie unit credit through Oakbrook, as well as college credit from the participating college or university. Oakbrook will award honors credit. Students can make a special request for AP credit by submitting documentation as specified by the Administration.

Carnegie Units

The South Carolina Uniform Grading Scale (see p. 6) and the system for calculating GPAs and class rank will apply to all courses carrying Carnegie units, including units earned at the middle and upper school level (i.e. Algebra I, Geometry, and Physical Science)

Academic Probation

A student who fails two or more courses for a term will be placed on Academic Probation for the subsequent term. The student's record and performance will undergo faculty review at the end of the term to determine whether the student is making sufficient progress to remain at Oakbrook. Note: No student on probation is allowed to run for any school office and driving privileges for upper school students may be suspended.

Grade Point Averages

All Carnegie unit courses offered by Oakbrook will be designated and weighted as College Preparatory, Honors, or Advanced Placement. Students will be encouraged to pursue Honors level work based on standardized test scores, academic performance (minimum B average), and a teacher recommendation. The rigor of the honors curriculum will prepare students for the oppor-

tunity to select Advanced Placement courses in their Sophomore, Junior, and Senior years. Students will need to maintain a B average in order to remain in honors classes.

Computer

Intro to Graphic Design CP Grades 9-12 0.5 Unit

Students in this class will learn the fundamentals of computer graphics. Through a series of lessons students will master manipulation of photographs, color correction, typography, layouts, and digital presentations. Over the course of the semester students will complete individual and group projects using Apple and Adobe design applications.

Advanced Graphic Design Honors Grades 9-12 0.5 Unit

Prerequisite: Intro to Graphic Design

Students will build on the basics learned in Computer Graphics I to create short movies and multimedia projects. During the first half of the semester we will review and learn new skills and techniques. For the second half of the semester will develop and deploy a website, tablet app, or computer animation.

Intro to Computer Principles Grades 9-12 0.5 Unit

Prerequisite or coreq: Geometry

This introductory survey course based on the UC Berkeley CS 10 course offers students a hands-on introduction to computer science that surrounds us every day. The course is far more than just learning to program. We'll focus on some of the "Big Ideas" in computing, such as abstraction, design, recursion, concurrency, simulation, and the limits of computation. We'll show some beautiful applications of computing that have changed the world, talk about the history of computing, and where it will go in the future.

Advanced Computing Programming Honors Grades 9-12 0.5 Unit

Prerequisite: Intro to Computing Principles or coding experience

Building on the drag and drop coding in Intro, this advanced programming course teaches core concepts in computer science and covers topics such as Boolean algebra, recursion, numeric algorithms, data structures, and object-oriented programming. Students will move to writing simple code as the semester progresses.

photography. The staff is lead by the Editor and the Adviser. Students in this course are also exposed to business experience by selling ads in the community. Each year the staff attends a two-day workshop led by our yearbook printing company. Students may receive honors credit with portfolio and teacher approval.

Intro to Graphic Design CP Grades 9-12 0.5 Unit

Students in this class will learn the fundamentals of computer graphics. Through a series of lessons students will master manipulation of photographs, color correction, typography, layouts, and digital presentations. Over the course of the semester students will complete individual and group projects using Apple and Adobe design applications.

Advanced Graphic Design Honors Grades 9-12 0.5 Unit

Prerequisite: Intro to Graphic Design

Students will build on the basics learned in Computer Graphics I to create short movies and multimedia projects. During the first half of the semester we will review and learn new skills and techniques. For the second half of the semester will develop and deploy a website, tablet app, or computer animation.

10 Point Grading Scale

South Carolina Uniform Grading Scale Conversions				
Numerical Average	Letter Grade	College Prep Weighting	Honors Weighting	AP/18/Dual Credit Weighting
100	A	5.000	5.500	6.000
99	A	4.900	5.400	5.900
98	A	4.800	5.300	5.800
97	A	4.700	5.200	5.700
96	A	4.600	5.100	5.600
95	A	4.500	5.000	5.500
94	A	4.400	4.900	5.400
93	A	4.300	4.800	5.300
92	A	4.200	4.700	5.200
91	A	4.100	4.600	5.100
90	A	4.000	4.500	5.000
89	B	3.900	4.400	4.900
88	B	3.800	4.300	4.800
87	B	3.700	4.200	4.700
86	B	3.600	4.100	4.600
85	B	3.500	4.000	4.500
84	B	3.400	3.900	4.400
83	B	3.300	3.800	4.300
82	B	3.200	3.700	4.200
81	B	3.100	3.600	4.100
80	B	3.000	3.500	4.000
79	C	2.900	3.400	3.900
78	C	2.800	3.300	3.800
77	C	2.700	3.200	3.700
76	C	2.600	3.100	3.600
75	C	2.500	3.000	3.500
74	C	2.400	2.900	3.400
73	C	2.300	2.800	3.300
72	C	2.200	2.700	3.200
71	C	2.100	2.600	3.100
70	C	2.000	2.500	3.000
69	D	1.900	2.400	2.900
68	D	1.800	2.300	2.800
67	D	1.700	2.200	2.700
66	D	1.600	2.100	2.600
65	D	1.500	2.000	2.500
64	D	1.400	1.900	2.400
63	D	1.300	1.800	2.300
62	D	1.200	1.700	2.200
61	D	1.100	1.600	2.100
60	D	1.000	1.500	2.000
59	F	0.900	1.400	1.900
58	F	0.800	1.300	1.800
57	F	0.700	1.200	1.700
56	F	0.600	1.100	1.600
55	F	0.500	1.000	1.500
54	F	0.400	0.900	1.400
53	F	0.300	0.800	1.300
52	F	0.200	0.700	1.200
51	F	0.100	0.600	1.100

**The Oakbrook Preparatory School
Global Scholars Institute**

Offering the prestigious Advanced Placement International Diploma (APID)

English				Grade 12	English IV or *AP English Literature and Composition	AP Microeconomics; AP Research	AP Calculus AB; AP Calculus BC; AP Statistics	AP Biology; AP Chemistry; AP Physics	*AP Spanish, German
Social Studies				Grade 11	English III British Literature and Com- position * AP English Language and Composition	AP U.S. Government and Politics; AP Seminar	Pre-Calculus or AP Calculus AB	AP Biology; AP Chemistry; AP Physics; AP Com- puter Science	Spanish, German
Math				Grade 10	English II American Literature and Composition	AP U.S. History	Algebra II or Pre-Calculus	Chemistry	Spanish, German, or Chinese III
Science				Grade 9	English I Genre and Composition	Global Studies II	Geometry or Algebra II	Biology	Spanish, German, or Chinese II
World Language				Grade 8			Algebra I or Geometry	Physical Science	Spanish, German
Other									None

Studio Art I & II Grades 9-12 0.5 Unit
The studio art experience will give students the opportunity to use a variety of mediums (pencils, pen, ink, charcoal, pastel, watercolor, paints and textile materials) while developing their individual style and creative problem solving skills. Students will demonstrate their ability to respond, to analyze, and to interpret their own continuation of the studio experience with additional mediums and styles. Studio Art II will be a continuation of the studio experience with additional mediums and styles.

AP Studio Art Grades 11-12 1 Unit

Prerequisites: Studio Art I & II and art teacher recommendation .
An intense art course for highly motivated advanced art students who already work at a very independent skill level. Students will complete a college level portfolio of work that includes a section that shows the variety of media & subject matter the student uses & an additional section that is a series based on one theme. A minimum of 24 high quality pieces of artwork will be created within the first 3 terms with revisions, photographing work & portfolio preparations including written support from the concentration series in term 4. The work will be presented to the AP College Board with the possibility of college credit. Summer projects are also required to be completed independently & brought into class at the beginning of the course for our first critique.

AP Art History Grades 10-12 1 Unit

Prerequisite: Global Studies II or AP Human Geography
AP Art History is designed to help students develop critical thinking, an understanding and knowledge of diverse historical and cultural contexts of architecture, sculpture, painting, and other media. The course covers periods from ancient through Medieval and Renaissance to the present.

Media Convergence Grades 9-12 0.5 Unit

This course explores the merging of media industries with an emphasis on multimedia storytelling. Students will be introduced to the theories, processes, vocabulary and techniques related to converged communication in the 21st Century. Students will develop skills in media arts, including digital photography and editing, graphic and web design, as well as marketing and brand development, social networking, and blogging. Honors students will complete a portfolio at the end of the course.

Yearbook Grades 9-12 1 Unit

Application and recommendation required
High School students in this course memorialize each school year by creating the school's yearbook. Students are asked to apply for this course in advance. Each student is responsible for layout design, writing copy and

discussed the next day in class. Many writing skills are developed in group efforts on the board and in group critiques of individual exercises.

Music Theory Grades 9-12 0.5 Unit

This course is an introduction to the vertical and linear dimensions of tonal music. After a review of musical fundamentals, in which students will be expected to demonstrate facility and speed in naming and spelling basic tonal materials, the course will introduce traditional contrapuntal exercises, basic diatonic harmony, and the paradigmatic construction of formal phrase units. A major concern of this course is the relationship between harmonic, contrapuntal, and formal prototypes and actual pieces of music from the 15th-20th Centuries.

Upper School Dance Grades 9-12 0.5 Unit

Dance is an interactive and innovative class designed to provide students with the opportunity to learn and appreciate the art form of dance. One of the main standards explored is dance technique, which enables the students to become literate in dance fundamentals, in a variety of genres, and to be engaged in activities involving body awareness, movement exploration, and the understanding of the dance elements-body, time, space, and energy. Emphasis is also put on understanding choreographic principles, processes, and structures while acquiring the skills to create and interpret ideas and feelings through dance. Students will use critical and creative thinking skills, learn history and culture, connect dance with healthy living, and relate dance with other disciplines.

Advanced Dance Honors Grades 9-12 0.5 Unit

Prerequisite: High School Dance and/or teacher recommendation

The Advanced Dance course is designed to emphasize and refine all main technique areas and master specific dance vocabulary related to the efficient and artful use of the body as an instrument. Students will understand and master all aspects of dance elements, such as body, time, space, and energy, by interweaving them skillfully throughout compositions, technique, and performance. A complex level of the choreographic principles will be studied and applied allowing students to create original dance works with coherence and aesthetic unity while directing a group of dancers through the choreographic process. Students will also analyze famous works and original student choreographed pieces and then critique and reflect on the works while implementing the dance elements. Dance history will be reviewed and applied while using critical and creative thinking skills.

***Required Courses for the AP International Diploma**

(In addition to two languages and a global perspective class, students must choose one math or science AP course along with one additional AP course from the list of AP courses with the exception of a third language)

Advanced Placement International Diploma Criteria

To earn an APID, students must earn grades of **three or higher** on at least **five** AP Exams in the following content areas:

- 1) Languages: Two AP Exams from two different languages selected from English and/or world languages
Oakbrook options include: AP English Literature (or Language) and Composition, AP Spanish Language, or AP German Language
- 2) Global Perspective: One exam offering a global perspective
Oakbrook option: AP World History or AP Art History
- 3) Math/Science: One exam from the sciences or mathematics content areas
Oakbrook options include: AP Calculus AB, AP Calculus BC, AP Statistics, AP Biology, AP Chemistry, AP Physics, AP Computer Science
- 4) Other: One or two** additional exams from any content area other than languages

**** Note:** A student may submit a letter from the Headmaster at his or her school verifying the student's mastery of a language not currently available within the AP suite of exams. This verification, printed on school letterhead, will satisfy the requirement for ONE AP Exam in the language category. However, a student who utilizes this option must submit an additional AP Exam from another content area. Thus, all students, however they satisfy the two-exam English and/or world language requirement, must submit a total of five AP Exam grades of 3 or higher to qualify for the APID.

Overview of Course Offerings

ARTS DEPARTMENT

English Department — 4 units required for graduation

* required for graduation

- * English I OR English I Honors
- * English II OR English II Honors
- * English III OR AP English Language and Composition
- * English IV OR AP English Literature and Composition

Students must maintain a B average to remain in the Honors curriculum.

Math Department — 4 units required for graduation

Students may move from CP to Honors courses with an A average and disciplined study skills.

Students must maintain a B average to remain in the Honors curriculum.

Required Math	Elective Math - Choose at least one *NOTE: All courses may not be offered each year.
Algebra I Geometry Algebra II	Algebra III Pre-Calculus AP Calculus AP Statistics

Year 1 (grade 7)	Year 2 (grade 8)	Year 3 (grade 9)	Year 4 (grade 10)	Year 5 (grade 11)	Year 6 (grade 12)
Algebra I H	Geometry H	Algebra II H	Pre-Calculus H	AP Calculus AB	AP Calculus BC or AP Stats

Year 1 (grades 8-9)	Year 2 (grades 8-10)	Year 3 (grades 9-11)	Year 4 (grades 10-12)	Year 5 (grades 11-12)
Algebra I H	Geometry H	Algebra II H	Pre-Calculus H	AP Calculus AB AP Statistics Pre-Calculus H
Algebra CP	Geometry CP	Algebra II CP	Algebra III CP	

Concert Band Honors

Grades 9-12

0.5 Unit

Upper School Band utilizes materials more technically demanding than band grades 5-8. Honors level band is designed for the student of advanced ability level. All Band Classes focus on the study of traditional band literature as well as transcriptions of great orchestral literature. Students will advance in technical skill, stylistic understanding of historical background, and aesthetic awareness through the study and performance of quality music literature. Performances at school and community events are an integral part of the program. Participation in the public performances and learning a solo is a required component of this course. Instruction in the honors level performing organizations will include foundations in music theory to prepare students for collegiate level music.

Prerequisites and other notes: Completion of 8th grade band and/or director's approval; Participation in this class is required for students to be eligible should they choose to participate in Solo and Ensemble, All-Region and All-State organizations.

AP Music Theory

Grades 10-12

1 Unit

Prerequisite: Music Theory placement test

Though AP Music Theory roughly parallels the content of a college freshman year theory course, some of the topics included are usually covered quite late in the undergraduate course of study. The material is covered very rapidly so that it can all be fit into the course; frequent homework and intensive skills practice are required of the student. Significant critical/analytical /creative thinking skills are fostered in most parts of the course, and especially in considerations of texture, harmonic progression, formal structuring, instrument transposition, and style.

AP Examination questions emphasize the synthesis of musical knowledge into usable musical understanding; the final question on the test asks students to compose music in an 18th century idiom.

Oral skills: Sight-singing is taught using solfege, movable "do" system.

Aural skills: Melodic dictation using 5-7 note fragments; these are notated without rhythm. Later rhythms, triads, 7th chords and modes are introduced for identification by ear. These skills are reinforced by the singing of the same items. Harmonic dictation, in which the student must write down the soprano, brass, and harmonic functions from a brief example played on the piano are taught in the last quarter.

Analytical skills: Basics of musical analysis are presented in lecture-demo format, with vocabulary introduced as necessary to the discussion. Worksheets of practice problems dealing with current topics are assigned almost daily; these are

German. A cumulative language reference binder will be compiled over the course of the year encouraging and enabling future (lifelong) independent learning.

AP German Language Grades 11-12 1 Unit

Prerequisite: German III and teacher recommendation

This course is specifically designed to prepare students for the *Advanced Placement German Exam* or college entrance exams. Listening and speaking will be the focus of the class while reading and writing will be developed through vocabulary enhancement activities. Drill will be stressed as students prepare for the AP German Exam.

CHINESE

Chinese II CP or Honors Grades 9-10 1 Unit

This Chinese II course introduces students to the advanced Chinese language and its culture. Students will learn to communicate in Chinese about themselves, their school lives, activities they enjoy, and a variety of other subjects in the present indicative mood. There is a strong emphasis on oral participation and vocabulary development. Cultural differences and similarities are explored. Advanced listening, speaking, reading and writing skills are explored.

Chinese III Honors Grades 10-12 1 Unit

Prerequisite: Chinese II and Chinese teacher's recommendation

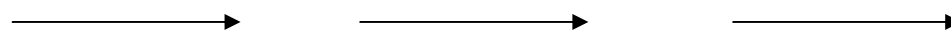
This class is designed for students who plan to complete the AP course. Reading, writing, speaking and listening skills will be practiced daily. Vocabulary expansion and cultural appreciation will continue. Students are expected to communicate mostly in Chinese. Reading, writing, listening and speaking skills will be used in the classroom activities.

Science Department - 3 units required for graduation

****Physical Science is a prerequisite for chemistry and physics but does not count toward the three science courses required for graduation.***

Students must maintain a B average in to remain in the Honors curriculum. Students may move from CP to Honors levels with an A or B average in science courses, evidence of excellent study habits, and teacher recommendation.

Required Science	Elective Science - Choose at least one *NOTE: All courses may not be offered each year.
Physical Science * Biology Chemistry	Anatomy & Physiology AP Physics AP Biology AP Chemistry



Year 1 (grades 8)	Year 2 (grades 9-10)	Year 3 (grades 10-11)	Year 4 (grades 11-12)	Year 5 (grade 12)
Physical Science H	Biology H	Chemistry H	AP Chemistry AP Biology AP Physics	AP Biology AP Chemistry AP Physics
Physical Science CP	Biology CP	Chemistry CP	Anatomy & Physiology CP Anatomy & Physiology H	Anatomy & Physiology CP Anatomy & Physiology H

Social Studies Department - 3.5 units required for graduation

Required Social Studies	Elective Social Studies—Choose at least one unit *NOTE: All courses may not be offered each year
AP Microeconomics, or Economics CP U. S. History CP or AP American Government CP (0.5 unit) or AP U.S. Government & Politics	Global Studies II AP Psychology AP World History AP Seminar AP Art History

In order to take AP U.S. Government, students should have maintained an A in CP U.S. History (or a B in AP U. S. History); in order to be enrolled in AP U.S. History or AP Psychology students need to have maintained a B average in Honors English and previous social studies; in order to be enrolled in AP World History, students must have taken Global Studies II and have maintained a B average in Honors English I, II, III.

World Language Department — 2 units required for graduation

The two units must be in the same language.

- * required for graduation
(NOTE: Some colleges require 3 units for admission)
- ◆ strongly recommended
- * Spanish I, German I
- * Spanish II, German II, or Chinese II - CP or Honors
- ◆ Spanish III, German III, or Chinese III - CP or Honors
Spanish IV/AP, German IV/AP

For these World Language courses, students may elect CP or Honors levels, but only Honors level courses will lead to opportunities for the AP courses. Two units in the same language are required for graduation, but some universities require at least three units (Clemson, for example).

German I Honors Grade 8-9 1 Unit

Teacher recommendation

This German course introduces students to the German language and its culture at an advanced pace and in greater depth. Students will learn to actively communicate in reading, writing, understanding and speaking German. This course is designed to promote the skills needed to do well in the honors courses that lead to the AP program.

German II CP Grades 9-10 1 Unit

Prerequisite: German I

German II concentrates on sharpening oral and aural skills acquired in German I. Grammar skills are reviewed, new grammar and new verb tenses are introduced. Vocabulary expansion will continue to be crucial and cultural connections will be expanded. Reading, writing, listening and speaking skills will be used in the classroom activities.

German II Honors Grades 9-10 1 Unit

Prerequisite: German I and German teacher's recommendation

This class reviews the oral and aural skills introduced in German I Honors. More advanced grammatical structures are stressed. Vocabulary expansion and cultural appreciation will continue. This course is designed to promote the necessary skills to do well in the honors courses that lead to the AP program.

German III Honors Grades 10-12 1 Unit

Prerequisite: German II and German teacher's recommendation

This class is designed for students who plan to complete the AP course. Reading, writing, speaking and listening skills will be practiced daily. Vocabulary expansion and cultural appreciation will continue. Students are expected to communicate mostly in German. Reading, writing, listening and speaking skills will be used in the classroom activities.

German IV Honors Grades 11-12 1 Unit (Seminar/Conversation)

Prerequisite: German III and German teacher's recommendation

The purpose of this course is to fully immerse the student into the German language through reading and hearing literature as well as discussing written works in German. Written responses will also be used to process the language/subjects of the pieces read together in class. Vocabulary needed to succeed at the advanced level will be introduced and immediate application/use will be encouraged. Idioms and transitional phrases used in spoken language will be studied as well as effectively answering questions asked in the target language,

designed to promote the necessary skills to do well in the honors courses that lead to the AP program.

Spanish III Honors Grades 10-12 1 Unit

Prerequisite: Spanish II and Spanish teacher's recommendation

This class is designed for students who plan to complete the AP course. Reading, writing, speaking and listening skills will be practiced daily. Vocabulary expansion and cultural appreciation will continue. Students are expected to communicate in Spanish.

Spanish IV Honors Grades 11-12 1 Unit

(Seminar/Conversation)

Prerequisite: Spanish III and Spanish teacher's recommendation

The purpose of this course is to fully immerse the student into the Spanish language through reading and hearing literature as well as discussing written works in Spanish. Written responses will also be used to process the language/subjects of the pieces read together in class. Vocabulary needed to succeed at the advanced level will be introduced and immediate application/use will be encouraged. Idioms and transitional phrases used in spoken language will be studied as well as effectively answering questions asked in the target language, Spanish. A cumulative language reference binder will be compiled over the course of the year encouraging and enabling future (lifelong) independent learning.

AP Spanish Language Grades 11-12 1 Unit

Prerequisite: Spanish III and Spanish IV and teacher recommendation

This course is specifically designed to prepare students for the Advanced Placement Spanish Language Exam or college entrance exams. Listening and speaking will be the focus of the class while reading and writing will be developed through vocabulary enhancement activities. Drill will be stressed as students prepare for the AP Spanish Language Exam.

GERMAN

German I CP Grades 8-9 1 Unit

This German course introduces students to the German language and its culture. Students will learn to communicate in basic German about themselves, their families, activities they enjoy, and a variety of other simple subjects in the present and present perfect mood. There is a strong emphasis on oral participation and vocabulary development. Cultural differences and similarities are explored. Basic listening, speaking, reading and writing skills are explored.

Other Required Units

One unit of each required for graduation

- * *Fitness/Dance*
 - * *Fitness; Strength Training*
 - * *Dance; Advanced Dance*
- * *Computer Applications*
 - * *Intro to Graphic Design*
 - * *Advanced Graphic Design*
 - * *Intro to Computing Science Principles*
 - * *Advanced Computer Science Principles*
 - * *AP Computer Science*
- * *Christian Education*
 - * *Worldview Foundations; Apologetics*
 - * *World Religions; Christianity & Ethics*

Electives - 5 Units required for graduation

any course taken in a department beyond the required number for graduation counts as an elective

ENGLISH DEPARTMENT

* 4 units required for graduation

English I: Survey of Genre and Composition CP

Grade 9 1 Unit

The course will include a study of English grammar, usage, vocabulary, composition, and literature. The literature will represent a variety of world authors, and students will be encouraged to analyze these works to gain stronger foundations in writing, listening, speaking, and thinking skills.

English I: Genre and Composition Honors

Grade 9 1 Unit

Prerequisite: 90 average in prior English and/or teacher recommendation
The course will cover the components of the English I CP course but will extend the study by including supplemental readings as well as more extensive essays and projects. The initial honors course is a foundation course for eventual AP level courses.

English II: American Literature and Composition CP

Grade 10 1 Unit

The course is an eclectic study of American literature. Fiction, non-fiction, poetry, and drama will be featured. Composition skills will be stressed as students begin literary analysis and poetry explication. Vocabulary skills will also be emphasized. Particular attention will be paid to preparation for SAT and ACT exams.

English II: American Literature and Composition Honors

Grade 10 1 Unit

Prerequisite: English I Honors or 90 average in English CP and/or teacher recommendation
The course will extend the criteria for English II CP by requiring more extensive writing and reading experiences.

English III : British Literature and Composition CP

Grade 11 1 Unit

The primary emphasis of the course will be composition and a survey of British Literature. Grammar and usage will be addressed as individual needs dictate.

WORLD LANGUAGE DEPARTMENT

• 2 units required for graduation

** College entrance will require at least 2 units of the same foreign language (Clemson University and other competitive schools require 3.)

SPANISH

Spanish I CP Grades 8-9 1 Unit

This Spanish course introduces students to the Spanish language and its culture. Students will learn to communicate in basic Spanish about themselves, their families, activities they enjoy, and a variety of other simple subjects in the present indicative mood. There is a strong emphasis on oral participation and vocabulary development. Cultural differences and similarities are explored. Basic listening, speaking, reading and writing skills are explored.

Spanish I Honors Grades 8-9 1 Unit

Prerequisite: Teacher recommendation
This Spanish course introduces students to the Spanish language and its culture at an advanced pace and in greater depth. Students will learn to actively communicate in reading, writing, understanding and speaking Spanish. This course is designed to promote the skills needed to do well in the honors courses that lead to the AP program.

Spanish II CP Grades 9-10 1 Unit

Prerequisite: Spanish I
Spanish II concentrates on sharpening oral and aural skills acquired in Spanish I. Grammar skills are reviewed, new grammar and new verb tenses are introduced. Vocabulary expansion will continue to be crucial and cultural connections will be expanded. Reading, writing, listening and speaking skills will be used in the class room activities.

Spanish II Honors Grades 9-10 1 Unit

Prerequisite: Spanish I and Spanish teacher's recommendation
This class reviews the oral and aural skills introduced in Spanish I Honors. The indicative verb tenses and advanced grammatical structures are stressed. Vocabulary expansion and cultural appreciation will continue. This course is

special emphasis will be given to preparations for the National AP Exam, including historical writing through essay and document-based questions (DBQ) as well as objective evaluations.

AP Psychology **Grades 10-12** **1 Unit**
Prerequisite: B or higher in both honors English and previous honors social studies.

The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

AP Human Geography **Grades 10-12** **1 Unit**
Prerequisite: B or higher in Honors Global Studies and English.

This is a study of the nature and perspectives of geography, population, cultural patterns and processes, political organization of space, agricultural and rural land use, industrialization and economic development, and cities and urban land use.

Students will continue to hone vocabulary skills in preparation for college entrance tests.

English III: Literature and Composition Honors
Grade 11 **1 Unit**

Prerequisite: English II Honors or 90 average in English CP and/or teacher recommendation

Narrative, description, expository, and persuasive essays will complement the study of British Literature.

AP English Language and Composition
Grade 11 **1 Unit**

Prerequisite: B or higher in English II Honors at Oakbrook and teacher recommendation. Transfer students: submission of an academic writing sample (research paper, analytical essay, 2-page minimum) for department review.

Co-requisite: Seminar

AP English and Composition is a rigorous college-level course for highly motivated students in the 11th grade. The course emphasizes critical reading, analytical and persuasive writing, and shared inquiry discussion. Of primary importance is a focus on rhetoric and argument through the study of various forms of discourse—primarily nonfiction, but also some prose fiction, drama, poetry, photography, and film. Students read texts from different time periods (usually but not limited to 18th to 21st century) and a wide variety of genres and purposes: often speeches, essays, letters, and journalism. Because of the emphasis on critical reading, students will read some texts that deal with mature themes and thought-provoking civic issues. Students are responsible for producing a comprehensive research paper developing a position on a relevant civic issue and supporting that position with appropriate evidence. AP English Language is a co-requisite for AP Seminar (students who take AP Seminar must be enrolled in AP English Language).

English IV: English Literature and Composition CP
Grade 12 **1 Unit**

Students will construct polished essays in preparation for their college experience. A variety of essay types will be required, some of which will require proper documentation. The survey of English Literature will be the primary literary emphasis.

AP English Literature and Composition
Grade 12

1 Unit

Prerequisite: C or higher in AP English Language at Oakbrook and teacher's recommendation, B or higher in English III Honors at Oakbrook and teacher's recommendation. Transfer students– submission of an academic writing sample (research paper, analytical essay, 2-page minimum) for department review.

An AP English Literature and Composition course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work's structure, style and themes, as well as such smaller-scale elements as the use of figurative language, imagery, symbolism and tone.

AP Microeconomics **Grade 12**

1 Unit

Prerequisite: Grade of B or higher in AP U.S. History or an AP Math or A in U.S. History

This year-long course is an introduction to microeconomics for students who have not taken any prerequisite economic classes. The course covers the requirements of the Advanced Placement Microeconomics course and personal finance decision making.

This Advanced Placement course will emphasize the “economic way of thinking” microeconomic principles and graphs. Class activities and assignments are designed to engage students to apply economic concepts to their personal decision making, to develop awareness of business and entrepreneurship, and to become familiar with US and global economic issues. In addition, this course will introduce international economics, including the economics of developing countries.

American Government CP **Grades 12**

0.5 Unit

A semester long course that broadly examines the theory and function of American government. Emphasis is placed on the Constitution, Federalism, Civil Rights and Liberties, and the functions of the Executive, Legislative, and Judicial branches. The course includes training in parliamentary procedure, bill writing, and mock legislative debate.

AP U.S. Government & Politics **Grades 11-12**

1 Unit

Prerequisite: B average in AP U.S. History or A average in CP U.S. History .

AP Government is a class designed as a college-level course, meeting the requirements necessary to take the Advanced Placement Test. It includes an in-depth study of the United States Political System; its development, the principal processes and institutions through which the system functions, and the establishment and implementation of governmental policies.

AP World History **Grades 10-12**

1 Unit

Prerequisite: Global Studies II, or AP Human Geography, and a grade of no lower than B in Honors English I, II, III, and/or teacher recommendation

AP World History is a rigorous, college-level course designed to explore human history from 8000 B.C.E. to the present. We will emphasize the development of analytical thinking and writing skills necessary for success on a collegiate level. To this end, the course devotes considerable time to the critical evaluation of primary and secondary sources, analysis of historiography (the principles, theories, or methodology of scholarly historical research and presentation) and inquiry into global connections that have shaped our present world. A

Senior Project Independent Study Grade 12 1 Unit

The senior project at Oakbrook Preparatory School is the culmination of the Oakbrook education experience. This is a capstone project that demonstrates the student's ability to independently select, research, and execute a project that culminates in a product or service. Students also explore and research an issue of individual interest relating to their selected project writing an academic paper. Final presentations give students the opportunity to communicate their experiences in both the project and paper. The course allows students to demonstrate proficiency with 21st Century Skills of creative thinking, critical thinking, communication and collaboration.

The Senior Project Independent Study Course is an Honors Level Course. This course or the AP Capstone program is required for graduation.

U.S. History Grades 10-11 1 Unit

A yearlong course that broadly examines the history of the United States from the Colonial period to the 1980s. The course focuses on the development of American political, economic, and cultural institutions as well as the historical contingencies that contributed its rise as a world power in the 20th century.

AP U.S. History Grades 10-11 1 Unit

Prerequisite: 90 or above in both Honors English and Honors Global Studies II; and/or a critical reading score of 45 or higher on the PSAT

AP U.S. History is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. History. The course 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—and to weigh the evidence and interpretations presented in historical scholarship. An AP U.S. History course should thus develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in essay format.

Introduction to Microeconomics (Honors) Grade 12 1 Unit

This year-long course is an introduction to microeconomics, macroeconomics, and international trade along with a unit on personal economics. The course emphasizes the “economic way of thinking” by learning and understanding terms and principles. Class activities and assignments are designed to engage students to apply economic concepts to their personal decision making, to develop awareness of business and entrepreneurial roles and responsibilities, and to become familiar with current US and global economic issues.

*** 4 units required for graduation****Algebra I Grade 8-9 1 Unit**

Prerequisite: Pre-Algebra or equivalent

Algebra I Honors

Prerequisite: Pre-Algebra or equivalent and teacher recommendation

Algebra I courses focus on the study of linear equations and inequalities, as well as absolute value, polynomial, quadratic, and exponential growth and decay functions. Other topics include matrices, statistics, probability, factoring, exponential properties, coordinate geometry and irrational numbers. Students learn to use algebra concepts in real world situations and formulate a strong connection between graphs, tables, and algebra of data sets.

Geometry Grade 8-10 1 Unit

Prerequisite: Algebra I

Geometry Honors

Prerequisite: B or higher in Algebra I Honors and/or teacher recommendation

The geometry courses focus on the development of logical reasoning, both inductive and deductive, through formal proofs and discovery methods, including, but not limited to, the use of Geometer's Sketchpad computer program and constructions with a compass and straight edge. Congruent and similar polygons, parallel and perpendicular lines, arcs and chords of circles, the Platonic solids, the properties of triangles and quadrilaterals, constructions, transformations, volume, area, and right triangle trigonometry are studied in depth. Algebra is used to reinforce geometric concepts and to maintain algebraic skills.

Algebra II Grade 9-10 1 Unit

Prerequisite: Algebra I and Geometry and/or teacher recommendation

Algebra II Honors

Prerequisite: B or higher in Algebra I Honors and B or higher in Geometry Honors OR A or higher in Algebra I CP and A or higher in Geometry CP and teacher recommendation

These courses takes ideas learned in Algebra I and goes more in depth into concepts such as solving and graphing linear equations and inequalities with one and two variables; graphing and using functions, including piecewise and absolute value functions; solving systems of linear equations and inequalities (both algebraically and geometrically) and linear equations with 3 variables. The course also explores matrices; complex numbers; quadratic and polynomial

functions; operations and functions using exponents and radicals; exponential, logarithmic, and rational functions.

Algebra III **Grade 10-12** **1 Unit**

Prerequisite: Algebra I & Algebra II

This course provides a substantial review of Algebra II, specifically function operators; operations with exponents and radicals; and exponential, logarithmic, and rational functions. The material proceeds to include conic sections, sequences and series, probability and statistics, and trigonometry.

Pre-Calculus Honors **Grade 10-12** **1 Unit**

Prerequisite: B in Algebra II Honors or an A in Algebra II CP and/or teacher recommendation

This college preparatory course develops conceptual understanding as well as applications of higher level mathematics. This course includes the study of linear, polynomial, rational, exponential, and logarithmic functions with extensive emphasis on graphing. Other topics include trigonometry, complex numbers, polar coordinates, vectors, and conic sections. Sequences and series, probability, and matrices will be introduced as time permits. Students will be required to use a graphing calculator throughout this course.

AP Calculus AB **Grade 11-12** **1 Unit**

Prerequisite: B or higher in Pre-Calculus and teacher recommendation

Topics include polynomial, trigonometric, exponential, and logarithmic functions; differential calculus, including the increment of a function, the chain rule, differentials, Rolle's Theorem, Mean Value Theorem, and applications; integral calculus, including indefinite and definite integrals, techniques of integration, and applications; limits including L'Hopital's Theorem. A graphing calculator is required for this course. The last few weeks of the course will involve a detailed review and preparation for the AP exam which will be taken the first week in May. Many colleges will grant credit for first semester Calculus to those who score a 3 or higher on this exam.

AP Calculus BC **Grade 12** **1 Unit**

Prerequisite: 3 or better on the AB Calculus exam and teacher recommendation

The AP Calculus BC course will be taught as a continuation of AB Calculus for students who have taken that course in their junior/sophomore years and/or students who have taken a calculus course at the college level. We will review the major concepts from AB Calculus to start the year, then continue on with additional Calculus concepts covered under the BC curriculum, then spend 2 nine

SOCIAL STUDIES DEPARTMENT

*** 3.5 units required for graduation**

Global Studies II **Grades 9-10** **1 Unit**

A yearlong survey course which examines global history from the Renaissance to present day. Students are taught using a variety of methods including lecture, class discussion, research, projects, timelines, and maps. The course focuses on the social, religious, and political development of Western Europe.

AP Capstone

The AP Capstone is an innovative diploma program from the College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone is built on the foundation of two AP courses- AP Seminar and AP Research. At Oakbrook, AP Seminar is offered to juniors with AP English Language as a co-requisite course. AP Research is offered during the senior year to those students who completed the AP Seminar course.

AP Seminar **Grade 11** **1 Unit**

Co-requisite: AP English Language and Composition; Prerequisite: Complete course questionnaire for teacher recommendation

The AP Seminar course is an inquiry-based course that aims to engage students in cross-curricular conversations that explore real-world topics and issues from multiple perspectives. Students are empowered to collect and analyze information with accuracy and precision in order to craft and communicate evidence-based arguments. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team.

AP Research **Grade 12** **1 Unit**

Prerequisite: AP Seminar and AP English Language

The AP Research course allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a yearlong mentored, research-based investigation to address a specific question. Students further develop the skills acquired in the AP Seminar course by learning about and understanding research methods: employing ethical research practices: and accessing, analyzing, and synthesizing information as they address a research question. The course culminates in an academic thesis paper of approximately 5,000 words and a presentation, performance, or exhibition with an oral defense.

AP Chemistry **Grade 11-12** **1 Unit**

Prerequisite: 85 or higher in Honors Chemistry or A in CP Chemistry

AP Chemistry is designed to offer a rigorous and challenging course that covers the chemistry and chemical principles typical of college and university general science courses. Students learn the usefulness and relevance of chemistry in both their intended areas of study and in the everyday world. The course should contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic.

AP Physics **Grade 11-12** **1 Unit**

Prerequisite: Chemistry Honors, Geometry, 85 or higher in Precalculus and/or teacher recommendation

The AP Physics B course covers topics typically found in a first-year introductory college physics course and advances the student's understanding of concepts normally covered in high school physics. The course provides a solid preparation for the AP Physics B exam. Major course themes include: Newton's Laws, Pascal's and Archimedes' Principles, solid and fluid mechanics, wave motion and sound, magnetism, thermodynamics, circuits, optics, quantum mechanics, particle physics, and astrophysics.

weeks exploring proof writing and Discrete Math, and finally reviewing BC concepts for the exam in May.

AP Statistics **Grade 11-12** **1 Unit**

Prerequisite: B or higher in PreCalculus Honors or a 90 n Algebra III CP and teacher recommendation

The students will be introduced to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: Exploring Data: Describing patterns and departures from patterns, Sampling and Experimentation: Planning and conducting a study, Anticipating Patterns: Exploring random phenomena using probability and simulation, and Statistical Inference: Estimating population parameters and testing hypotheses. Statistical applications of given data sets will be used in a wide variety of problems, including but not limited to, agriculture, biology, business, economics, education, psychology, engineering, medicine, sociology, and computer sciences.

Intro to Statistics-CP **Grade 11-12** **0.5 Unit**

Prerequisite: Geometry and Alg II

Probability and Statistics concentrates on statistics and probability with emphasis on data sampling and quantitative analysis. The course is enriched through the use of real-world problems. This class is an elective and will not count as one of your 4 math units. Course topics: Foundations of data analysis, Univariate data displays, Bivariate data and scatter plots, Basic probability concepts and applications. Probability distributions, Statistical inference, Hypothesis testing, and Project Design.

SCIENCE DEPARTMENT

***3 units required for graduation**

Physical Science is a prerequisite for Chemistry and Physics but does not count toward the three required lab sciences required for graduation. The three sciences must be from at least two different fields (biology, chemistry, or physics).

Physical Science CP/Honors Grade 8 1 Unit

This course will provide a basic overview of the major concepts and principles of chemistry and physics while establishing a foundation for successive science courses. It will not require that the student be in a higher level math; however, a higher level of math skills and understanding of science concepts will be expected of honors students. Students in this course will be given a good foundation for the sciences that will be experienced in high school and later in technical school. *Prerequisite for Chemistry and Physics

Biology Grade 9-10 1 Unit

This course is an introduction to the major characteristics of living organisms. Course topics include characteristics of life, history of life, cell structure and function, basic concepts of heredity and reproduction, and an overview of the major characteristics of organisms classified within the taxonomic system of life including their comparative anatomy and ecological relationships. A required laboratory component will provide hands-on activities to reinforce important topics.

Biology Honors Grade 9-10 1 Unit

Prerequisite: Teacher recommendation

This honors-level course is for motivated students who desire an in-depth and challenging program. Course content encompasses interrelationships of living things, levels of biological organization, human biology, social implications, biochemistry, and genetics. Extensive laboratory work, problem-solving and research are essential components.

Marine Biology Grade 11-12 1 Unit

Prerequisite: Biology

An introduction to the history and methodology of the study of the ocean, including the diversity of marine life and marine ecosystems. This course explores how the physical and biological characteristics of the ocean interact to affect marine ecology.

Anatomy and Physiology Honors/CP Grade 11-12 1 Unit

Prerequisite: Biology Honors & Chemistry Honors OR Biology and Chemistry and teacher recommendation

This course is an in-depth study of the structure and function of the human body. Course topics include a survey of the major themes of biology; the principal features of organisms; the structure, physiology and metabolism of cells and tissues; the anatomy and physiology of the major mammalian organ systems, their interrelationships, and homeostatic mechanisms. A required laboratory component will stress hands-on activities in cell biology and anatomy and physiology with dissection. Labs will also have a health and sports medicine emphasis.

AP Biology Grade 11-12 1 Unit

Prerequisite: B or higher in Honors Biology & Honors Chemistry and/or teacher recommendation

This course is an in-depth study equivalent to college-freshman biology and includes several major themes and principles of biology with special emphasis on the characteristics of life, origin of life and evolution of diverse life forms, genetics and molecular biology of viruses, bacteria and eukaryotic organisms and ecological relationships among organisms. A comprehensive laboratory component is required and will reinforce basic principles. College credit may be obtained upon successfully passing the AP Biology Examination.

Chemistry Grade 10-11 1 Unit

Prerequisite: Biology

This course is an introduction to chemistry. Students study atomic structure, chemical and physical changes, formulas, mole relationships, balancing equations, gases, properties of solids, liquids, and gases, bonding, acids and bases. Contains a major lab component.

Chemistry Honors Grade 10-11 1 Unit

Prerequisite: Honors Biology or teacher recommendation

This is a course designed for students with exceptional academic talent and a strong desire to major in the sciences. The study includes atomic theory, stoichiometry, thermodynamics, quantum exploration of atomic structure, the relation of chemical properties to atomic theory and the periodic table, and equilibrium as applied to acid-base and redox reaction. A short introduction to organic and nuclear chemistry is part of the course. The course contains a major laboratory component.