

# **CATHEDRAL HIGH SCHOOL**

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## COLLEGE PREPARATORY



# **Course Catalog**

## **2026-2027**



Dear Students and Parents:

This course catalog is the approved listing of the Cathedral High School program of studies for the 2026-2027 school year. It provides you with course descriptions for required courses, as well as electives to be offered dependent upon enrollment projections and/or teacher availability. Prerequisites are listed for courses that have eligibility requirements. Information about Cathedral High School's graduation requirements as well as college and university entrance requirements, are also provided in this catalog.

These course offerings represent the program of study that Cathedral High School believes is appropriate and stimulating. They provide the intellectually rigorous coursework students need as part of an integrated, well-rounded, college-preparatory education offered in the Catholic and Lasallian traditions.

Cathedral's academic program provides a balance between core courses required of all and an elective program that recognizes the diversity of talents and interests in our student body. Recognizing this balance and working with its many possibilities are the primary tasks for students and parents with the academic counselors over the next several weeks as we move through the course registration process. Graduation requirements of Cathedral and entrance requirements of colleges and universities should be carefully reviewed as next year's program of studies is planned.

Working with the information contained in this catalog, each student should plan a program of studies for the next academic year in consultation with parents, teachers, administrators, and counselors. Students should make appropriate and realistic course requests. It is always prudent to select course alternatives in case the first choices are not possible. It is important to remember that the school reserves the right to cancel courses or limit sections according to enrollment projections and/or teacher availability. As Dean of Studies, I am responsible for directing this process and ensuring the academic success of our students.

Please note that after schedules are set a change in course selection will be granted only if a substantial need is demonstrated and space in the requested course(s) is available. The same course may be offered in several sections and taught by more than one faculty member. Course changes for teacher preferences are not granted. The Dean of Studies is the final judge of the legitimacy and feasibility of such requested changes. It is important, therefore, that you carefully prepare your course requests.

Please be assured of the support of the faculty, counselors, and administration as you continue to participate in our Catholic, Lasallian education in the Phantom tradition of excellence.

Sincerely,  
*Sulema Modesto*  
**Dean of Studies**

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# General Policies

## **Pre-Registration/ Scheduling:**

Both students and parents must read the course catalog carefully, especially the course descriptions and prerequisites. Students should discuss course choices with parents, counselors, and teachers.

You are to complete the course selection sheet after discussing choices with your parents and appropriate teachers. Parent and student signatures are required when the form is submitted to the Academic Counselor.

If you are requesting an Honors or AP course, you must make sure you meet the requirements and satisfy any additional work.

During Advisement Week, you will meet with your Academic Counselor to review your Course Selection Sheet. At this time, your counselor will review your course requests, check your graduation requirements to date, and verify eligibility for certain courses. Approval will be based on space availability as determined by the Administration, graduation requirements, course prerequisites, and/or Department Chair's recommendations. Every effort will be made to honor your course requests, but scheduling constraints may not allow for all desired classes.

Students will be required to take the courses for which they pre-registered unless the student does not meet the published prerequisites, the class is canceled, or he drops the class during the summer schedule changes.

Please know that initial placement is made based on your transcript and first semester grades. Final placement is determined after the second-semester grades have been posted in June. Please check the published prerequisites in the course catalog for each course. The Dean of Studies and the Department Chair will approve final decisions for course selection in June.

## **Course Request Changes:**

Students may request a change in schedule on specified days during the summer and only the first week of school in August for the first semester and the first week in January for the second semester. ***Approval of requests is dependent upon*** 1) space availability in the class requested; 2) suitability of the reason for the request and consistency with requirements as stated in the course catalog, and 3) parental approval. Student preference for a particular teacher will not be considered. If a teacher initiates a class change due to academic difficulties after the first week of the semester, a student will be withdrawn from the course with no academic liability up to progress report time.

## **Advanced Placement Courses:**

Cathedral participates in the nationwide Advanced Placement Program of college-level instruction in high school by offering Advanced Placement courses. Cathedral offers fourteen (14) AP courses. Students who complete these classes are required to take the nationwide examinations in May that are prepared by the College Entrance Examination Board. A passing grade of 3 or higher means the student has met requirements for the college-level course and is entitled to advanced placement. Additional fees are required from the student for each AP course he takes. Students are allowed to enroll in up to five AP courses.

**Cathedral High School**  
**Required & Recommended Courses**  
**2026-2027 School Year**

<b>SUBJECT AREA</b>	<b>UNITS</b>	<b>REQUIRED COURSES</b>	<b>RECOMMENDED ELECTIVES</b>
<b>Religious Studies</b>	40	Religious Studies I, II, III, IV	Frosh Seminar: Diversity and Inclusion
<b>English</b>	40	English I (P) or Honors English I English II (P) or Honors English II (P) English III (P) or AP Eng. Language (P) English IV (P) or AP Eng. Literature (P)	Great Books (P) Lit to Film (P) Utopian Literature (P)
<b>Social Studies</b>	30	World History (P) or Honors World History (P) U.S. History (P) or AP U.S. History (P) U.S. Government (P) or AP Government (P)	Law I A/B (P) Psychology (P) Criminal Justice (P)
<b>Mathematics</b>	30	Algebra I (P) Algebra II (P) or Honors Algebra II (P) Geometry (P) or Honors Geometry (P)	Pre-Calculus (P) or Honors Pre-Cal (P) AP Pre-Calculus (P) AP Calculus AB (P) AP Calculus BC (P) Business Math (P) AP Computer Science A (P)
<b>Computer Science</b>	40		AP Computer Science A (P) AP Computer Science Principles (P) Computer Science - Python Robotics I, II, III (P) E-Sports (P) E-Sports 2 (P) E-Sports 3 (P) Honors Software Engineering (P)
<b>Science</b>	30	Biology (P) or Honors Biology (P) Chemistry (P) or Honors Chemistry (P) Physics (P)	AP Biology (P) AP Chemistry 1-2 (P) AP Physics I (P) Honors Physics (P) Human Physiology/Anatomy (P) AP Computer Science Principles (P) Honors Software Engineering (P)
<b>Language</b> <small>Other than English (LOTE)</small>	20	Spanish I SPK(P), Spanish II SPK (P) Spanish I NS (P), Spanish II NS (P) Spanish II Honors (P)	AP Spanish Language (P) AP Spanish Literature (P) Spanish III NS or Spanish III SPK (P) Spanish III Honors (P)
<b>Visual &amp; Performing Arts</b>	10	Theatre Arts I (One Semester) (P) And a one-year class from Recommended Elective Column	Studio Art I, II, III (P) <b>Band I, II, III, IV (P)*</b> Theatre Arts II/III (P) Media Graphics I (P) <b>Media Graphics II (P)*</b> Music Appreciation (P) Video Prod I / TV Media Design (P) Video Production II (P) <b>Sports Broadcasting (P)*</b>  * = <b>may not be offered</b>
<b>Electives</b>	70		Selected Electives

**280 units required for graduation**

**(P) - UC and/or CSU approved courses**

**Note: This chart represents minimums**

Academic Area (Departments)	Cathedral High School's Graduation Requirements		University of California (UC)	California State University (CSU)
	Years	Credit	Years	Years
Religious Studies	4	40	0	0
English	4	40	4	4
Social Studies	3	30	2	2
Mathematics	3	30	3	3
Science	3	30	2	2
Foreign Language	2	20	2	2
Visual and Performing Arts	1	10	1	1
Electives	4	80	1	1
<b>Total Core</b>		<b>280</b>		

Five (5) semester units (credits) are awarded for the successful completion of each regular semester course. Courses recognized by UC and CSU as college preparatory are designated by **(P)**.

Freshman Year	Sophomore Year	Junior Year	Senior Year
1. Religious Studies	1. Religious Studies	1. Religious Studies	1. Religious Studies
2. English I	2. English II	2. English III	2. English IV
3. Theatre Arts/Frosh Seminar: Diversity and Inclusion	3. World History	3. U.S. History	3. Government
4. Biology	4. Chemistry	4. Physics	4. Elective or PE
5. Mathematics	5. Mathematics	5. Mathematics	5. Elective
6. Spanish I	6. Spanish II	6. Elective or PE	6. Elective
7. Computer Science: Python	7. Elective/VPA or PE	7. Elective	7. Elective

**Graduation Requirements:**

A minimum of 280 units (credits) is required for graduation. For a senior student to be eligible for graduation, his transcript must show that all F grades have been made up through the successful completion of courses equivalent to those he failed. No diploma will be awarded until all semester F's have been made up. Fall semester F grades must be made up by April 15<sup>th</sup> of the student's senior year if he wishes to participate in graduation.

### **Semester Grades:**

Semester grades are the only grades recorded on a student's permanent transcript. The progress reports and mid-semester grades are not recorded on a student's permanent transcript. Grades recorded on the transcript cannot be removed or replaced by supplemental coursework.

### **Grade Point Average (GPA):**

In calculating the grade point average, letter grades are equivalent to grade points as follows:

**A = 4, B = 3, C = 2, D = 1, F = 0.**

Honors and AP course letter grades are equivalent to grade points as follows:

**A = 5, B = 4, C = 3, D = 1, F = 0.**

Some colleges and universities do not give extra GPA weight to all honors courses taken. Pluses (+) and minuses (-) do not affect the GPA.

### **D Grades (Not recommended for college):**

Since a semester D grade is not an acceptable grade for entrance to a four-year college or university, students with a semester grade of D are strongly encouraged to attend summer school to repeat the subject.

### **F Grades (Failing)**

Course (s) in which a semester F was earned must be made up in summer school before the student returns for the fall semester. Semester F grades must be made up at **Cathedral High School** if the course (or an equivalent) is offered in the summer school program. If a student fails both semesters of a yearlong CSU/UC required course, he must take two elective courses during Cathedral High School's summer school session to make up credits for the F grades. The student will then retake the failed course in the following school year. The grades received in summer school are noted on the student's permanent transcript.

Any student is subject to dismissal if he receives three or more semester F grades during one academic year or if he does not achieve a minimum 2.00 GPA after being placed on academic probation. See the Student Handbook for further information on probation and conditions of continuation.

### **Academic Program of Study**

Cathedral High School offers a college preparatory program of studies to enable all students to meet the minimum requirements for both the University of California (UC) system and the California State University (CSU) system. Most academic advisors of both high school and college students agree, however, that preparation for university study includes more than the basic requirements for entrance. Therefore, students are encouraged to enroll in classes well beyond the minimum requirements.

### Admission to Colleges and Universities

Cathedral High School graduates usually continue their education at the college or university level. Eligibility requirements and admission standards vary depending on the college or university. While Cathedral makes every effort to see students take courses commensurate with their ability and future goals, the final responsibility for meeting college entrance requirements rests with students and their parents. Students should consult with the College Counselor for more specific information and guidance.

#### Private Colleges/Universities



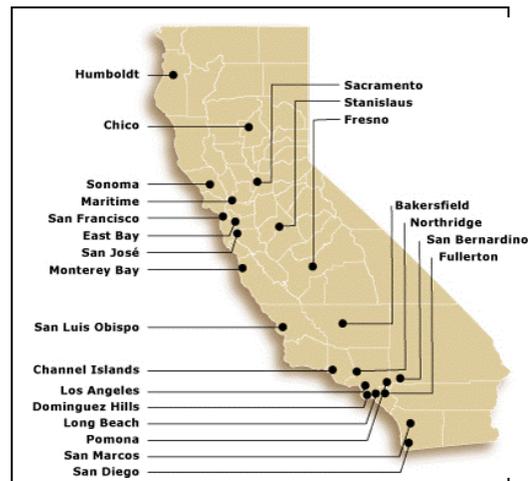
#### University of California System



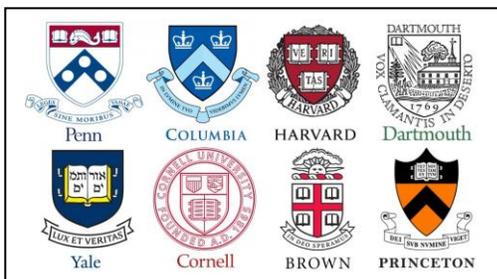
#### Community College System



#### California State University System



#### Ivy League Schools



# University of California Requirements

## University of California (UC)

This system consists of ten undergraduate campuses. Minimum eligibility requirements for all ten campuses are the same. The University defines a “freshman applicant” as a student who has graduated from high school but who has not enrolled in any regular, non-summer sessions in any collegiate-level institution.

## Freshman Admission Requirements

To be eligible for admission to the University as a freshman, you must meet the Subject Requirement, the Scholarship Requirement, and the Examination Requirement. A minimum of fifteen (15) units, to be taken during grades 9-12, is required for admission to the University of California (a one-year high school course = one unit; a one-semester course = ½ unit). These fifteen units must be academic or college preparatory units, and of these fifteen units, at least seven (7) must be taken during the last two years of high school.

### I. Subject Course Requirements

Specific course requirements are referred to as the “a-g” course requirements; all classes must be passed with a grade of C or better: (see chart below).

<b>Subject</b>	<b>The University of California and California State University Requirements</b>
<b>a. History</b>	<u>Two years</u> of history / social science to include: one-year U.S. History or one-half of U.S. History and one-half year of Civics or American Government and one year of world history, cultures, and geography.
<b>b. English</b>	<u>Four years</u> of college-preparatory English composition and literature.
<b>c. Mathematics</b>	<u>Three years</u> – algebra, geometry, and intermediate algebra. Four years of mathematics are recommended.
<b>d. Laboratory Science</b>	<u>Two years</u> of laboratory science providing fundamental knowledge in at least two of these areas: biology, chemistry, and physics. Three years of laboratory science are recommended.
<b>e. Language other than English (LOTE)</b>	<u>Two years</u> of a language other than English. Three years of study of the same foreign language are recommended.
<b>f. Visual and Performing Arts</b>	<u>One year</u> of visual or performing arts: art, dance, drama, or music.
<b>g. College Preparatory Electives</b>	<u>One year</u> to be chosen from the following areas: history, English, advanced mathematics, laboratory science, languages other than English (a third year in the language used for the “e” requirement or two years of another language), social science, and visual and performing arts.

### II. Scholarship Requirements

The scholarship requirement is defined by the GPA, which students must attain in the “a-g” subjects. If your “a-g” GPA is 3.30 or higher, you have met the minimum scholarship requirement. If your GPA is below 3.30 but above 2.80, you have met the minimum requirement *if* you achieve the college entrance test score indicated on the Eligibility Index (consult with the College Counselor for questions regarding the Eligibility Index).

### III. Examination Requirements

The following tests are required of all freshmen applicants:

A. Either the SAT- your critical reading, math, and writing scores on this test must be from the same sitting, or the ACT- the composite score will be used.

**UC ELIGIBILITY INDEX FOR CALIFORNIA RESIDENTS**

<b>SAT TEST SCORE TRANSLATION</b>				<b>ACT TEST SCORE TRANSLATION</b>				
<b><u>SAT SCORES</u></b>	<b><u>UC SCORES</u></b>	<b><u>SAT SCORE</u></b>	<b><u>UC SCORE</u></b>	<b><u>ACT SCORE</u></b>	<b><u>UC SCORE</u></b>	<b><u>ACT SCORE</u></b>	<b><u>UC SCORE</u></b>	
800	100	490	48	36	100	20	47	
790	98	480	47	35	97	19	43	
780	97	470	45	34	93	18	40	
770	95	460	43	33	90	17	37	
760	93	450	42	32	87	16	33	
750	92	440	40	31	83	15	30	
740	90	430	38	30	80	14	27	
730	88	420	37	29	77	13	23	
720	87	410	35	28	73	12	20	
710	85	400	33	27	70	11	17	
700	83	390	32	26	67	10	13	
690	82	380	30	25	63	9	10	
680	80	370	28	24	60	8	7	
670	78	360	27	23	57	7	3	
660	77	350	25	22	53	1-6	0	
650	75	340	23	21	50			
640	73	330	22	<b>Below are the combinations of GPA and UC Score Totals that meet UC's minimum requirements.</b>				
630	72	320	20					
620	70	310	18	<b><u>"A - G" GPA</u></b>		<b><u>MINIMUM UC SCORE TOTAL</u></b>		
610	68	300	17					
600	67	290	15	3.00 - 3.04		223		
590	65	280	13	3.05 - 3.09		210		
580	63	270	12	3.10 - 3.14		198		
570	62	260	10	3.15 - 3.19		187		
560	60	250	8	3.20 - 3.24		175		
550	58	240	7	3.25 - 3.29		165		
540	57	230	5	3.30 - 3.34		157		
530	55	220	3	3.35 - 3.39		152		
520	53	210	2	3.40 - 3.44		147		
510	52	200	0	3.45 - ABOVE		143		
500	50							

1. CONVERT YOUR ACT OR SAT SCORES TO UC SCORES.
2. ADD ALL THREE PARTS. (READING+MATH+WRITING)
3. CONVERT YOUR 2 HIGHEST SAT SUBJECT SCORES TO UC SCORES.
4. ADD TO STEP 2 (READING+MATH, WRITING+SUBJECT TEST 1+ SUBJECT TEST 2)
5. FIND YOUR SCORE ON THE ELIGIBILITY INDEX TO SEE IF YOUR GPA MEETS THE MINIMUM REQUIREMENT.

In calculating the GPA for admission, grades for courses are counted as follows: A = 4, B = 3, C = 2, D = 1, F = 0. Only grades for "a-g" courses taken in grades 10-12 are included in this computation. Courses taken in the 9<sup>th</sup> grade will not be included in the GPA calculation, however, 9<sup>th</sup>-grade courses can be used to meet the Subject Requirement if the student earns a grade of C or better.

## California State Universities (CSU)

Minimum eligibility requirements for all undergraduate schools are the same.

You will qualify for regular admission as a first-time freshman if you:

1. Meet the Eligibility Index with your grade point average and test scores (consult with the College Counselor for questions regarding the Eligibility Index.)
2. Have completed with grades of C or better the courses in the comprehensive pattern of college preparatory a-g subject requirements. (The courses approved by UC are also approved by the CSU system.) You may be required to meet higher admissions requirements for impacted programs.
3. Take either the SAT I or the ACT. Submit scores from either SAT I or ACT. No SAT II Subject Tests are required for admission to a CSU campus.

### CSU ELIGIBILITY INDEX FOR CALIFORNIA HIGH SCHOOL GRADUATES OR RESIDENTS OF CALIFORNIA

GPA	ACT	SAT I									
3.00	any	score	2.74	15	710	2.48	20	920	2.22	25	1130
2.99	10	510	2.73	15	720	2.47	20	930	2.21	26	1140
2.98	10	520	2.72	15	730	2.46	21	940	2.20	26	1140
2.97	10	530	2.71	16	740	2.45	21	940	2.19	26	1150
2.96	11	540	2.70	16	740	2.44	21	950	2.18	26	1160
2.95	11	540	2.69	16	750	2.43	21	960	2.17	26	1170
2.94	11	550	2.68	16	760	2.42	21	970	2.16	27	1180
2.93	11	560	2.67	16	770	2.41	22	980	2.15	27	1180
2.92	11	570	2.66	17	780	2.40	22	980	2.14	27	1190
2.91	12	580	2.65	17	780	2.39	22	990	2.13	27	1200
2.90	12	580	2.64	17	790	2.38	22	1000	2.12	27	1210
2.89	12	590	2.63	17	800	2.37	22	1010	2.11	28	1220
2.88	12	600	2.62	17	810	2.36	23	1020	2.10	28	1220
2.87	12	610	2.61	18	820	2.35	23	1020	2.09	28	1230
2.86	13	620	2.60	18	820	2.34	23	1030	2.08	28	1240
2.85	13	620	2.59	18	830	2.33	23	1040	2.07	28	1250
2.84	13	630	2.58	18	840	2.32	23	1050	2.06	29	1260
2.83	13	640	2.57	18	850	2.31	24	1060	2.05	29	1260
2.82	13	650	2.56	19	860	2.30	24	1060	2.04	29	1270
2.81	14	660	2.55	19	860	2.29	24	1070	2.03	29	1280
2.80	14	660	2.54	19	870	2.28	24	1080	2.02	29	1290
2.79	14	670	2.53	19	880	2.27	24	1090	2.01	30	1300
2.78	14	680	2.52	19	890	2.26	25	1100	2.00	30	1300
2.77	14	690	2.51	20	900	2.25	25	1100			
2.76	15	700	2.50	20	900	2.24	25	1110			
2.75	15	700	2.49	20	910	2.23	25	1120			

**NOTE: Below 2.00 does not qualify for regular admission.**

## **ACADEMIC COUNSELORS**

### **FRESHMAN CLASS**

Mrs. Loren Martinez (323) 441-3123, [lmartinez@chsla.org](mailto:lmartinez@chsla.org)

### **SOPHOMORE CLASS**

Mrs. Loren Martinez (323) 441-3123, [lmartinez@chsla.org](mailto:lmartinez@chsla.org)

### **JUNIOR CLASS**

Mr. Robert Ryan [rryan@chsla.org](mailto:rryan@chsla.org)

### **SENIOR CLASS**

Mr. Terry Catlin (323) 441-3121, [tcatlin@chsla.org](mailto:tcatlin@chsla.org)

### **DIRECTOR OF GUIDANCE AND COUNSELING**

Mr. Terry Catlin (323) 441-3121, [tcatlin@chsla.org](mailto:tcatlin@chsla.org)

### **DIRECTOR OF MATH AND SCIENCE ACADEMY**

Mrs. Darcy Lopez (323) 441-3177, [dlopez@chsla.org](mailto:dlopez@chsla.org)

### **DIRECTOR OF ONWARD SCHOLARS PROGRAM**

Mr. Jalen Bramble-Manning (323) 441-3166, [jbmanning@onwardscholars.org](mailto:jbmanning@onwardscholars.org)



# RELIGIOUS STUDIES

Chair: Mr. Daniel Meraz

## *Required Courses:*

### **RELIGIOUS STUDIES I** **THE REVELATION OF JESUS CHRIST IN SCRIPTURE /** **WHO IS JESUS CHRIST?** **10 UNITS—TWO SEMESTERS COURSE #101/102**

The purpose of the first-semester course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. They will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally.

The purpose of the second-semester course is to introduce students to the mystery of Jesus Christ, the living Word of God, the Second Person of the Blessed Trinity. In this course, students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about who he is, the students will also learn who he calls them to be.

### **RELIGIOUS STUDIES III** **SACRAMENTS / LIFE IN JESUS CHRIST (MORALITY)** **10 UNITS — TWO SEMESTERS COURSE # 301/302**

The purpose of the first-semester course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail to learn how they may encounter Christ throughout life.

The purpose of the second-semester course is to help students understand that it is only through Christ that they can fully live out God's plans for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples.

### **Frosh Seminar: Diversity and Inclusion** **5 UNITS—ONE SEMESTER COURSE# 1503**

#### **PREREQUISITES:**

- **A semester required class for Freshmen.**

This course provides students with an introductory overview of cultural diversity and the inclusion of human society. Topics will include race and ethnicity, genderism, and religion about discrimination and inclusion and explore the definitions and concepts of acceptance in today's social era.

### **RELIGIOUS STUDIES II** **PASCHAL MYSTERY / ECCLESIOLOGY** **10 UNITS— TWO SEMESTERS COURSE# 201/202**

The purpose of the first-semester course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entail.

The purpose of the second-semester course is to help the students understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements.

In this course, students will learn not so much about events in the life of the Church but the sacred nature of the Church.

### **RELIGIOUS STUDIES IV** **WORLD RELIGIONS (P)/VOCATIONS** **10 UNITS— TWO SEMESTERS COURSE# 401/402**

Great Religions of the World opens doors to the spiritual riches of the world's major religions. This course invites students to re-examine their faith and religious life in more depth.

In the second semester, the students will study Christian Lifestyles, a more comprehensive course that addresses issues relevant to all states of life from a Christian perspective. Students will examine single life, marriage, religious life, and ordained ministry.

# ENGLISH

All English department courses are aligned with the California State Standards for the Language Arts and meet UC/CSU "B" requirements for English except as noted.

**Chair: Ms. Susan Pennington**

## ***Required Courses:***

## ***Required Courses:***

**ENGLISH IA/IB (P)**  
**10 UNITS — TWO SEMESTERS**      **COURSE# 1101/1102**

This course is introductory; it lays the groundwork for future department offerings. The academic year includes an introduction to expository, narrative, persuasive, and research writing. Students will read selections from Greek mythology, short stories, poetry, *Tuck Everlasting*, *Big Fish*, *The Book of Unknown Americans*, and *A Raisin in the Sun*. The course integrates research skills, literature, vocabulary, composition, and grammar to create a strong curriculum. A comprehensive written final examination is required each semester.

**ENGLISH IIA/IIB (P)**  
**10 UNITS — TWO SEMESTERS**      **COURSE# 1201/1202**

This course builds on previous knowledge and experience with a focus on World Literature. The writing assignments assume an understanding of the terms and skills taught in freshman year. The course includes readings in non-fiction, poetry, short stories, *The Odyssey*, *Julius Caesar*, and *Lord of the Flies*. Literature, vocabulary, composition, and grammar are integrated and taught together throughout the year. A comprehensive written final examination is required each semester.

**ENGLISH IIIA/IIIB (P)**  
**10 UNITS — TWO SEMESTERS**      **COURSE# 1301/1302**

English III traces the development of the unique American voice through literary and historical movements; the emphasis is on how authors convey the attitudes of their times. In addition to reading non-fiction, stories, and poetry from the textbook, students will read *The Crucible*, *The Great Gatsby*, *Twelve Angry Men*, and other important American texts. Students explore Puritanism, Romanticism, Regionalism, Realism, Modernism, and Post-Modernism. Regular writing assignments, including essays, are required each semester, and a research paper is required during the second semester. A comprehensive written final examination is required each semester.

**ENGLISH IVA/IVB (P)**  
**10 UNITS — TWO SEMESTERS**      **COURSE# 1401/1402**

English IV gives students a sense of British literature and the beginnings of the Western Tradition through readings such as *Oedipus Rex*, *Beowulf*, and *Macbeth*. Students read prose, poetry, drama, and non-fiction to explore British literary traditions and movements from the English Renaissance to Post-Moderns to understand the eternal themes that continue today. The skills of literature, vocabulary, composition, and grammar are integrated and taught together throughout the year. The intensive work began in English I, II, and III are continued and completed in this course. A comprehensive written final exam is required each semester.

# ENGLISH

All English department courses are aligned with the California State Standards for the Language Arts and meet UC/CSU "B" requirements for English except as noted.

## Elective Courses:

### HONORS ENGLISH IA/IB 10 UNITS — TWO SEMESTERS COURSE# 1103/1104

#### PREREQUISITES:

- Appropriate scores on Entrance Exam, including writing samples; writing sample from the eighth-grade teacher (could be emailed to school).
- Interview response to questions regarding student's interest in participating in English I Honors, if he qualifies.

This course is offered to freshmen who have demonstrated they can meet the demands of a more intense English course. English I Honors is introductory; it lays the groundwork for future department offerings. The first semester introduces students to the genres of fiction, non-fiction, poetry, and drama. Texts include short stories, poetry, *Metamorphosis*, *Lord of the Flies*, *Macbeth*, Greek mythology, and *A Raisin in the Sun*. Essays, including a research project, require students to demonstrate their understanding of course content. The course integrates research skills, literature, vocabulary, composition, and grammar so that these skills are taught in conjunction throughout the year.

A comprehensive written final exam is required each semester.

### AP ENGLISH LANGUAGE A/B (P) 10 UNITS — TWO SEMESTERS COURSE# 1411/1413

#### PREREQUISITES:

- B or better in English II
- Teacher Recommendation
- Writing Sample
- Appropriate score on placement test

This course is offered to juniors who have shown they can meet the standards of a more demanding English course. In addition to the textbooks Prentice-Hall's *The American Experience* and *Everyday Use: Rhetoric at Work in Reading and Writing* AP Edition, three novels, *Animal Farm*, *The Scarlet Letter*, and *The Adventures of Huckleberry Finn*, and a non-fiction work *I know Why The Caged Bird Sings* are required reading during the year. The writing assignments are similarly rigorous and may include introductory style analysis in addition to journals, essays, research papers, and stories. Taking the AP English Language exam is required. A comprehensive written final exam is required each semester.

**A SUMMER READING PROJECT IS REQUIRED.**

### HONORS ENGLISH IIA/IIB (P) 10 UNITS — TWO SEMESTERS COURSE# 1203/1204

#### PREREQUISITES:

- B or better in English I
- Teacher Recommendation
- Writing Sample

This course is offered to sophomores who have shown they can meet the standards and demands of a more intense English course. The course includes a variety of readings including non-fiction, short stories, poetry, *The Odyssey*, *Julius Caesar*, *My Children! My Africa!* and *Great Expectations*. In addition to reinforcement and practice of the writing skills introduced during freshman year, students will be required to display the rigorous analysis of literature and a clear understanding of terms and devices. Literature, vocabulary, composition, and grammar are integrated and taught together throughout the year. A comprehensive written final exam is required each semester.

**SUMMER AND WINTER READING PROJECTS ARE REQUIRED.**

### AP ENGLISH LITERATURE A/B (P) 10 UNITS — TWO SEMESTERS COURSE# 1410/1412

#### PREREQUISITES:

- B or better in English III or AP English Language
- Teacher Recommendation
- Appropriate PSAT verbal scores
- Appropriate score on placement test

AP English Literature fulfills the requirement for English IV and is offered to seniors who meet the qualifications listed above. The course is designed in part to meet the English literature and writing requirements for college freshmen. It also prepares students for the Advanced Placement Examination in English Literature and Composition given by the College Board. In the class, students will read a variety of texts and excerpts including British and American poetry and stories, important non-fiction, *The Great Gatsby*, *The Iliad*, *Oedipus Rex*, *Antigone*, *Macbeth*, *Hamlet*, *1984*, *Frankenstein*, *Mrs. Dalloway*, and *The Piano Lesson*. Students will master textual analysis and complex writing; they will also expand their knowledge of literary forms, terms, and devices.

**SUMMER AND WINTER READING PROJECTS ARE REQUIRED.**

# ENGLISH

All English department courses are aligned with the California State Standards for the Language Arts and meet UC/CSU "B" requirements for English except as noted.

## Elective Courses:

**Lit to Film/Utopian Literature**  
5 UNITS - ONE SEMESTER EACH

COURSE# 1600/1612

**PREREQUISITES:**

- C or better in English 2 AB.

**Lit to Film**

This one-semester course is open to interested students who have completed English 2. Students will read novels, stories, and graphic novels and discuss how the texts might be translated to film. They will then view the film versions and discuss the screenwriter's choices as well as the director's choices in bringing texts to the screen. Students will see both good and bad adaptations and learn the limitations and advantages of each genre. A comprehensive semester exam is required.

**Utopian Literature**

In this one-semester class, students will read authors' descriptions of dystopias and utopias. Based on their readings and experience, students will then discuss adaptations of the texts on film. A comprehensive semester exam is required.

**GREAT BOOKS A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 1608/1610

**PREREQUISITES**

- Overall grade average of B or better
- 11th and 12th graders only

This course is designed to enable students to come in contact with the thinking and writing of some of the great authors of our western cultural heritage. Students will be reading from primary, rather than secondary sources. After an assigned reading, students will exchange insights in seminar discussion. The insights developed from these discussions will be related to current issues where possible. Frequent writing assignments will help students articulate the thoughts and knowledge gained from the seminar. Authors will include Plato, Aristotle, Dante, Chaucer, Shakespeare, Swift, Dickens, and others. Readings from modern times will include a number of works written about life in California during the 20th century. Texts: *Most texts for this class will be e Books which are available free of charge.* A comprehensive written final examination is required.

# SCIENCE

All Science department courses are aligned with the California State Standards for the Science and meet UC/CSU "D" requirements for Science except as noted.

**Chair: Mr. David Galaz**

## Required Courses:

### **BIOLOGY A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4201/4202

The goal of this course is to provide students with a solid understanding of the principles and processes of biological science. Biology informs our understanding of the world from practical applications in health to the deepest philosophical questions of our origins. The class will focus on five key biological processes: evolution, cell biology, genetics, physiology, and ecology. The class emphasizes scientific methods and laboratory techniques including dissections and the use of microscopes.

### **CHEMISTRY A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4311/4312

The goal of this course is to provide students with a solid understanding of the principles and processes of chemistry. As a science, Chemistry is the study of the composition of matter and the changes that matter undergoes. The class will focus on the language of chemistry including symbols, formulas, and equations. Students will apply basic laboratory techniques to gain a better understanding of the material. Problem-solving using appropriate formulas and mathematical procedures is also emphasized.

### **PHYSICS A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4401/4402

Physics is a laboratory science course that examines the interactions between matter and energy. Students explore physics concepts through an inquiry-based approach. Emphasis is placed on understanding the concepts of Mechanics, Electricity, and Magnetism. Using the Scientific Method to develop an awareness of the impact of physics on society is also emphasized.

### **HONORS BIOLOGY A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4203/4204

#### **PREREQUISITES:**

- **Biology Assessment Exam**
- **HSPT Score**

The subject matter is similar to Biology but with a greater emphasis on laboratory techniques, basic chemistry, and microbiology. This class will move at a faster pace and focus on concept development and synthesis of information.

During May, students are required to take the single subject exam in Honors Biology that is administered by the College Board.

### **HONORS CHEMISTRY A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4313/4314

#### **PREREQUISITES:**

- **B or better in Biology, Algebra I**
- **Chemistry assessment exam**
- **Concurrent enrollment in Algebra II or better**

Honors Chemistry is a challenging course, offering more in-depth treatment of materials covered in Chemistry including a more intensive mathematical approach and greater emphasis on laboratory methods and techniques.

During May, students are required to take the single subject exam in Honors Chemistry that is administered by the College Board

### **HONORS PHYSICS A/B (P)**

10 UNITS — TWO SEMESTERS COURSE# 4421/4422

#### **PREREQUISITES:**

- **Concurrent enrollment in Honors Pre-Calculus**

Honors Physics is designed for the college-bound student that will be taking additional physical science courses in their college career. The course will engage students in investigating observable phenomena in the world around them, describing their causes, and empirically predicating outcomes. The emphasis is placed on problem-solving; students will be challenged to apply math skills to physics concepts in new ways. Students are guided through the use of the scientific method and data collection, describing and predicting linear and projectile motion, Newton's laws, rotational motion, thermodynamics, wave properties, light and optics, and electromagnetism. Laboratory experimentation is a significant component of Honors Physics, comprising more than 20% of the course.

During May, students are required to take the single subject exam in Honors Physics that is administered by the College Board.

# SCIENCE

All Science department courses are aligned with the California State Standards for the Science and meet UC/CSU "D" requirements for Science except as noted.

## Elective Courses:

### AP PHYSICS I A/B (P) 10 UNITS — TWO SEMESTERS

COURSE# 4360/4361

#### PREREQUISITES:

- **B or better in both semesters of Physics and English**
- **or achieve a score of 650 or better on the single subject exam in Physics.**
- **Concurrent enrollment in Pre-Calculus or better**

The AP Physics 1 course is designed as an equivalent to the algebra-based college-level physics class. At the end of the course, students are required to take the AP Physics 1 exam, which will test their knowledge of both the concepts taught in the classroom and their use of the correct formulas. Lab work is integral to the understanding of the concepts in this course; therefore 25% of each week will be used for lab activities. Students will be required to meet once a week outside of normal class time to achieve this goal. All students are required to complete a significant amount of coursework by July 4<sup>th</sup> to be prepared for three mandatory summer sessions. Credit for College Physics is determined by passing the AP Exam and is determined by individual Universities.

### AP COMPUTER SCIENCE PRINCIPLES A/B (P) 10 UNITS — TWO SEMESTERS

COURSE# 3092/3093

#### PREREQUISITES:

**Computer Science Teacher Recommendation and concurrent enrollment in Algebra 2 or higher-level class. Must have a "B" average or better in Math, Science, and Computer Science classes.**

**Language:** Scratch and Python

AP Computer Science Principles is a college-level year-long class in computer science that will focus on computational thinking and the tools needed to analyze, study, and work with large data sets to conclude trends. This course is interdisciplinary as students explore how computer software and other technology can be used to solve problems. It will focus on the ethical implications of technology alongside the mechanical components. Students will learn Scratch and Python programming languages. It is part of the Amazon Future Engineer Program. Students must take the AP Computer Science Principles exam in May. Advanced Placement Computer Science Principles is aligned with the California State Standards for Science and meets UC/CSU "D" requirements for Science.

### ROBOTICS II (P) 10 UNITS — TWO SEMESTERS

COURSE# 4802/4803

#### PREREQUISITES:

B or higher in Robotics I  
Teacher Recommendation

**Language:** Java

Students will continue their work from Robotics I to work in engineering teams to design, build, and test increasingly complex robots. The course will illustrate the engineering design process, the importance of integrating sensors, and complex machine control, and briefly discuss robot learning and multi-robot systems. Students will be expected to solve challenges using physical robots and computer simulations. Students will work in teams to complete a larger design problem and participate in local and regional competitions. Special attention will be paid to the design process and its communication through both presentation and documentation. Students will explore additional hardware and software solutions to robotics problems. Students will learn advanced hardware and software techniques, as well as mathematics and physics to understand them in a hands-on, lab-centric environment.

### AP CHEMISTRY 1-2 (P) 10 UNITS — TWO SEMESTERS

COURSE# 4380/4381

#### PREREQUISITES:

- **Successful completion of Honors Chemistry with B or better in both semesters**
- **or achieve a score of 650 or better on the single subject exam in Chemistry. The exam will be given on campus.**
- **B or better in English**
- **Concurrent enrollment in Pre-Calculus or better**

AP Chemistry is equivalent to a college-level general chemistry course that provides rigorous study in four major areas: structure of matter, states of matter, reaction, and descriptive chemistry. Students must be highly motivated to take this rigorous course. At the end of the year, students are required to take the Advanced Placement Examination for college credit. The student will demonstrate a basic understanding of, and the ability to apply, mathematical solutions to problems involving atomic theory and structures, chemical bonding, nuclear chemistry, kinetic theory, solutions, reaction types, stoichiometry, equilibrium, kinetics, thermodynamics, and descriptive chemistry. Evaluation is based on homework, lab reports, and tests. Much of the class is "out of class homework" and in-class "lab" based work.

### AP BIOLOGY (P) 10 UNITS — TWO SEMESTERS

COURSE# 4215/4216

#### PREREQUISITES:

- **12<sup>th</sup> graders only (Academy and Non-Academy)**
- **B or better in Biology and Chemistry along with teacher recommendation.**

AP Biology includes college-level topics in biology as determined by The College Board. Topics include, but are not limited to, cell biology, genetics, biotechnology, the evolution of organisms, phylogeny, animal physiology, and ecology. Students will master skills related to the reading of the technical text, scientific writing, and real-world science applications. May earn college credit based on score earned on an advanced placement exam. This course requires the completion of a summer assignment before the beginning of the school year.

### HUMAN PHYSIOLOGY & ANATOMY A/B (P) 10 UNITS — TWO SEMESTERS

COURSE# 4530/4531

#### PREREQUISITES:

- **C or better in the following courses:**
- **Algebra I, Biology, Chemistry, and English**

This year-long course involves a basic introduction to the anatomy and physiology of the human body. Students completing this class will have gained a solid understanding of the major functions of most body parts and systems as well as how these relate to disease, injury, and other health issues. Each student will obtain extensive experience with dissections and group work. Much of the second semester will involve hands-on activities exemplifying physiological aspects of the human body.

# SCIENCE

All Science department courses are aligned with the California State Standards for the Science and meet UC/CSU "D" requirements for Science except as noted.

## Elective Courses:

**ROBOTICS III (P)**  
10 UNITS – TWO SEMESTERS COURSE# 4804/4805

**PREREQUISITES:**

B or higher in Robotics I and II  
Teacher Recommendation

**Language:** Java

Robotics Engineering will introduce students to the fascinating and fun world of robotics. Students will cover the history of robots, their current application and future implementation. Students will understand the sub systems of a robot, including environmental sensing, recording and actuating devices. They will apply scientific and engineering principles to the design of a robot and understand how electronics, electrical, pneumatic and computer systems can be used to control robots involved in manufacturing, recreation, entertainment and the futuristic world.

**HONORS SOFTWARE ENGINEERING (P)**  
10 UNITS – TWO SEMESTERS COURSE# 7556/7557

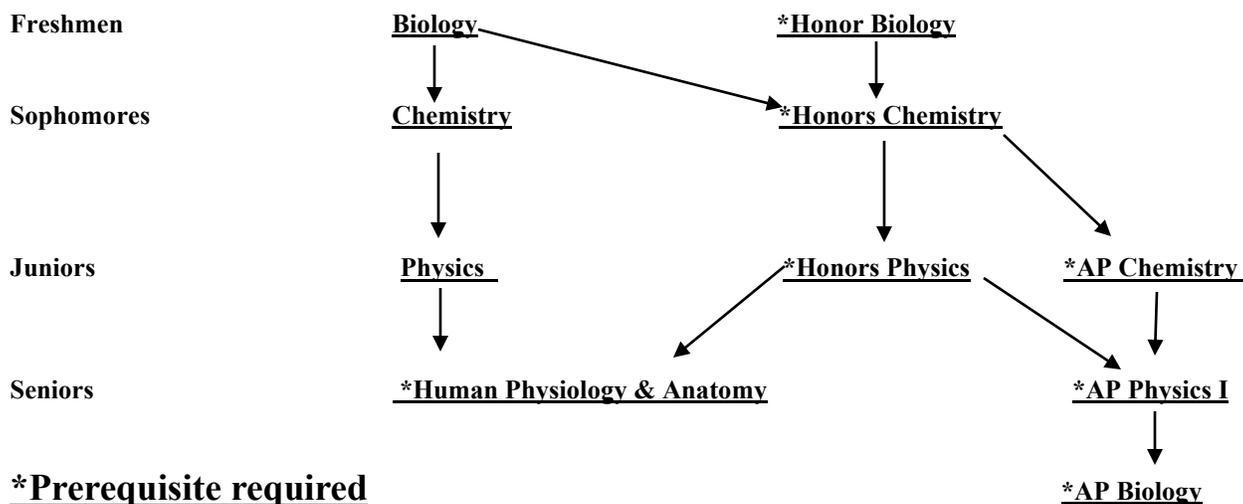
**PREREQUISITES:**

Department selected students must take and complete the AP Computer Science A course, passing the class with at least a B. Students must demonstrate marked initiative and organizational skills in other coursework to be considered.

**Language:** Java

The Honors Software Engineering class allows students to hone more advanced Computer Science and Software Engineering skills. The class will be oriented towards preparing students to excel in a college curriculum, have a head start on preparing and applying for college internships, and equip them to be more adroit independent learners, a trait highly valued in the industry. The course will focus on the design and implementation process, leveraging collegiate and professional level skills and tools rather than following a more traditional lecture-oriented course. This will be done through a yearlong app development process in which students ideate, design, organize, implement, test, and present a fully functioning app.

## Progression of Science Courses



# MATHEMATICS

All Math department courses are aligned with the California State Standards for the Math and meet UC/CSU "C" requirements for Math except as noted.

## Required Courses:

**Chair: Mr. Norman Zelada**

## Elective Courses:

**ALGEBRA IA/IB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3111/3112

### PREREQUISITES:

- None

This is a student's first high-school mathematics class and serves as the foundation for future study in the field. Students learn to 1) simplify (i.e., add, subtract, multiply, and divide) expressions with numbers and variables, 2) solve and graph linear equations and systems, and 3) translate situations presented in word problems into equations to answer the questions posed by the problems. Additional topics include exponents, roots, and factoring

**MATH LAB A/B**  
10 UNITS — TWO SEMESTERS COURSE# 3150/3151

### PREREQUISITES:

- Concurrent enrollment in Algebra I
- Placement determined by High School entrance exam scores and summer school

The Math Lab is a project-based course supporting the Algebra I curriculum. The Math Lab course builds upon students' previous knowledge of mathematics in their lives by using hands-on applications. Students will explore algebraic concepts and use scientific reasoning to bolster their computational and critical thinking skills. Students will complete labs in class and review algebraic skills using technology.

**GEOMETRY A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3211/3212

### PREREQUISITES:

- Completion of Algebra I

Geometry applies deductive and to a lesser degree inductive logic to the study of simple figures (such as points and lines) in space. The inductive and deductive techniques serve as a necessary foundation in higher mathematics as well as rigorously exercising the student mind. Students learn about the basic geometric terms and figures, properties of parallel lines, congruency and similarity of polygons, circles, area of plane figures, writing proofs, and constructions.

**ALGEBRA IIA/IIB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3301/3302

### PREREQUISITES:

- Completion of or concurrent enrollment in Geometry

This course reviews topics from Algebra I. This course includes graphing and solving functions, linear and quadratic inequalities, and systems of equations. This course also covers algebraic simplification, evaluation, and advanced factoring. Irrational and complex numbers and applications are also introduced. This course applies algebraic concepts to various types of word problems.

**HONORS GEOMETRY A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3221/3222

### PREREQUISITES:

- Math Teacher Recommendation, B or better in Algebra I

This course is offered to students excelling in Algebra I. It covers the same subject matter as non-honors Geometry but at a faster pace so that additional topics are covered such as solid geometry, coordinate geometry, right triangle trigonometry, constructions and loci, transformations, composition, and symmetry. Also, each semester a project is required.

**HONORS ALGEBRA IIA/IIB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3311/3312

### PREREQUISITES:

- B+ or better in Algebra I, B+ or better in Geometry or C in Geometry Honors, Geometry Teacher recommendation

This course covers the same materials as Algebra II at an accelerated pace. Additional topics such as direct and inverse variation, algebraic proofs, matrices, exponential functions, logarithmic functions, trigonometric functions, and vectors are covered. This course requires the use of a TI-Nspire CAS graphing calculator. After successful completion of this course, students would take Pre-Calculus or Pre-Calculus Honors the following year.

**Business Math (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3400/3401

### PREREQUISITES:

- Math Teacher Recommendation and "B" or better in Algebra 2 or Precalculus

Business Math focuses on mathematical skills used in everyday life with the goal of developing intelligent consumers. The practical applications of mathematics are studied using real-world situations. Personal finances are emphasized through the study of personal earnings, the elements of business, credit, and investments. Concepts such as compound interest and maximizing profit will connect to mathematical skills such as using exponents and analyzing quadratics.

# MATHEMATICS

All Math department courses are aligned with the California State Standards for the Math and meet UC/CSU "C" requirements for Math except as noted.

## Elective Courses:

**PRE-CALCULUS A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3411/3412

**PREREQUISITES:**

- **Math Teacher Recommendation and "C+" or higher in both semesters of Algebra 2 or a "C" in Honors Algebra 2**

This course covers polynomial, conic, and trigonometric functions. It introduces the graphs of these functions as well as their transformations. Other topics included in this course are analytic geometry, polar coordinates, and vectors. This course requires the use of a TI-Nspire graphing calculator.

**HONORS PRE-CALCULUS A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3413/3414

**PREREQUISITES:**

- **Math Teacher Recommendation and either "C" or higher in Honors Algebra 2 or "A" in both semesters of Algebra 2**

This course solidifies the fundamental skills necessary for Calculus. The course covers the same materials as regular Pre-Calculus at an accelerated pace. Additional topics include analytic trigonometry, application of trigonometric functions, the binomial theorem, probability, and the development of limits and derivatives. This course requires the use of a TI-Nspire graphing calculator.

**AP CALCULUS AB A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3425/3429

**PREREQUISITES:**

- **Math Teacher Recommendation and "C" or better in Honors Pre-Calculus, OR an "A" in Pre-Calculus**

AP Calculus AB is a college-level course providing an introduction to the main principles of calculus and emphasizing the development of problem-solving using GATE (graphing, algebra, tables and explanation). The first semester will cover limits, derivatives and differentials along with the word problems related to these topics. In the second semester we will cover integration and all related aspects of the anti-derivative. The aim of the class is to duplicate the learning experience in a first semester College Calculus course. Students validate their learning by taking the Calculus AB AP test in May.

**AP CALCULUS BC A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3423/3427

**PREREQUISITES:**

- **Math Teacher Recommendation and "C" or better in AP Calculus AB**

Advanced Placement Calculus BC is a second year college course taught at Cathedral High School. Although the class meets three times a week for two full blocks and a 40-minute session, students are required to attend two-morning sessions with the teacher before school on non-class days. All students are required to attend a mini calculus seminar of four sessions in the summer in preparation for the school year. During the second semester, students are required to attend four three-hour Saturday sessions of which two are practice Calculus AP BC exams. College credit is obtained upon passing the AP exam and is determined by the University that each the student applies to.

**AP PRE-CALCULUS A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3416/3417

**PREREQUISITES:**

- **Math Teacher Recommendation and either "C" or higher in Honors Algebra 2 or "A" in both semesters of Algebra 2**

AP Precalculus centers on functions modeling dynamic phenomena. This research-based exploration of functions is designed to better prepare students for college-level calculus and provide grounding for other mathematics and science courses. In this course, students study a broad spectrum of function types that are foundational for careers in mathematics, physics, biology, health science, business, social science, and data science. Throughout this course, students develop and hone symbolic manipulation skills, including solving equations and manipulating expressions, for the many function types throughout the course. Students also learn that functions and their compositions, inverses, and transformations are understood through graphical, numerical, analytical, and verbal representations, which reveal different attributes of the functions and are useful for solving problems in mathematical and applied contexts. In turn, the skills learned in this course are widely applicable to situations that involve quantitative reasoning.

# MATHEMATICS

All Math department courses are aligned with the California State Standards for the Math and meet UC/CSU "C" requirements for Math except as noted.

## Elective Courses:

**COMPUTER SCIENCE / PYTHON CODING (P) IA/IB**  
10 UNITS — TWO SEMESTERS COURSE# 7550/7551

**PREREQUISITES:**

Computer Science Teacher Recommendation and concurrent enrollment in Geometry or higher-level class. Must have a "C+" average or better in Math, Science, and Computer Science classes.

**Language:** Python

This year-long course is designed to offer an introduction to computer science. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science, including AP Computer Science Principles and AP Computer Science A courses. This course satisfies the "A-G" math elective requirement for admission to the UC/Cal State university system. It is part of the Amazon Future Engineer Program.

**AP COMPUTER SCIENCE A (JAVA) (P) A/B**  
10 UNITS — TWO SEMESTERS COURSE# 7554/7555

**PREREQUISITES:**

Computer Science Teacher Recommendation and concurrent enrollment in Algebra 2 or higher class. Must have a "B" average or better in Math, Science, and Computer Science classes.

**Language:** Java

AP Computer Science A is a college-level programming class in Java, a popular in-demand programming language. Java is used to build server-side applications, games, and financial applications, and is the core foundation for developing Android apps. Students will be introduced to topics that include problem-solving, design strategies and methodologies, organization of data (data structure), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. It is part of the Amazon Future Engineer Program. Students must take the AP Computer Science A exam in May. Advanced Placement Computer Science A is aligned with the California State Standards for Math and meet UC/CSU "C" requirements for Math.

**ROBOTICS I (P)**  
10 UNITS – TWO SEMESTERS COURSE# 4800/4801

**PREREQUISITES:**

Math and Computer Science (if it applies) Teacher Recommendation and "C+" or higher in both semesters of Algebra 2 or a "C" in Honors Algebra 2.

**Language:** Java

Robotics is a one-year course that may be repeated for credit. The course will cover conceptual and algebra-based physics, mechanical components, computer-aided design of mechanical systems, engineering problem solving, JAVA computer programming, electronics theory and design, and control systems concepts and implementation. During the second semester, one of the projects will be the design and construction of a robot for the FIRST robotics competition. Our students will accomplish a variety of design and building projects throughout the year, working in groups. Students will research and create various presentations and written reports on engineering topics throughout the course.

Our goal is to form capable leaders in STEAM (Science, Technology, Engineering, Arts and Math) and other fields through participation in FIRST Robotics. Through planning, designing, building, and programming a robot that competes against other FIRST robotics teams, our students gain real, hands-on, technical engineering training, and develop skills in leadership, collaboration, communication, planning, fundraising, public relations, and more. Our goals are to inspire our young men to pursue STEAM in their careers and be prepared to handle whatever demands are placed upon them in their education and careers.

**ROBOTICS III (P)**  
10 UNITS – TWO SEMESTERS COURSE# 4804/4805

**PREREQUISITES:**

B or higher in Robotics I and II. Teacher Recommendation

**Language:** Java

Robotics Engineering will introduce students to the fascinating and fun world of robotics. Students will cover the history of robots, their current application and future implementation. Students will understand the sub systems of a robot, including environmental sensing, recording and actuating devices. They will apply scientific and engineering principles to the design of a robot and understand how electronics, electrical, pneumatic and computer systems can be used to control robots involved in manufacturing, recreation, entertainment and the futuristic world.

# SOCIAL STUDIES

All Social Studies department courses are aligned with the California State Standards for the Social Studies and meet UC/CSU "A" requirements for Social Studies except as noted.

## Required Courses:

Chair: Mr. Robert Ryan

## Elective Courses:

### **WORLD HISTORY A/B (P)** 10 UNITS — TWO SEMESTERS COURSE# 2201/2202

This course provides the students with an overview of world history from the Renaissance to our post-Cold War era through analysis of social, political, economic, and geographic forces that shape Western and non-Western cultures. Specific instruction is provided to assist students in developing a thesis and completing one college prep research paper.

### **UNITED STATES HISTORY A/B (P)** 10 UNITS — TWO SEMESTERS COURSE # 2301/2302

This course offers a chronological narrative treatment of American history, highlighting major events and developments. It will also discuss those who have contributed to our nation's history. It will help students understand how past events are related to the present. Students will also analyze historical issues and deepen their understanding of American history.

### **UNITED STATES GOVERNMENT A/B (P)** 10 UNITS — TWO SEMESTERS COURSE# 2401/2402

This course provides the student with a basic understanding of the structure and operation of the federal and state governments. At the same time, it calls attention to the basic values on which political and legal systems are based and the principles that give direction to how those systems work.

### **HONORS WORLD HISTORY A/B (P)** 10 UNITS — TWO SEMESTERS COURSE# 2221/2222

#### **PREREQUISITES:**

• To be determined by the Dean of Studies  
or

• **Concurrent enrollment in English II Honors**

This course meets the 10th Grade requirement for World History with an emphasis on critical reading and writing skills. It offers an in-depth narrative treatment of World History from the Renaissance to the present. They will prepare for enrollment in AP US History, however, assignment, enrollment in World History Honors will not guarantee enrollment in AP US History.

### **AP US HISTORY A/B (P)** 10 UNITS — TWO SEMESTERS COURSE# 2310/2311

#### **PREREQUISITES:**

**B (or higher) in World History Honors  
or A- (or higher) in World History  
and Teacher Recommendation**

This course meets the 11<sup>th</sup>-grade requirement of U.S. History. It offers a chronological, in-depth narrative treatment of American history. It prepares students for the nationwide Advanced Placement Examination in U.S. History given by the College Board. A grade of 3 or better may meet the college requirement for a U.S. History course. Monthly weekend sessions are required.

### **AP US GOVERNMENT A/B (P)** 10 UNITS — TWO SEMESTERS COURSE# 2410/2411

#### **PREREQUISITES:**

**B (or higher) in AP US History  
or A- (or higher) in US History  
and Teacher Recommendation**

This course meets the 12<sup>th</sup>-grade requirement of the U.S. Government. The course offers an in-depth treatment of the structure, functions, and operations of the American government. The course prepares students for the nationwide Advanced Placement Examination in U.S. Government given by the College Board. A grade of 3 or better on the AP test may meet the college requirement for a U.S. Government course.

# SOCIAL STUDIES

*All Social Studies department courses are aligned with the California State Standards for the Social Studies and meet UC/CSU "A" requirements for Social Studies except as noted.*

## Elective Courses:

### **PSYCHOLOGY A/B (P)**

**10 UNITS — TWO SEMESTERS    COURSE# 2500/2503**

#### **PREREQUISITES:**

- **11<sup>th</sup> & 12<sup>th</sup> graders only**

This course provides students with an introduction to psychology: its history and development, its important figures, its basic principles and methods, and its main areas of application and concern in everyday life. Instructional methods include film analysis, case studies, and formal lectures.

### **CRIMINAL JUSTICE A/B (P)**

**10 UNITS — TWO SEMESTERS    COURSE# 2375/2376**

#### **PREREQUISITES:**

- **12<sup>th</sup> graders only**

This course provides an introduction to the study of criminal justice in American society and focuses on the history, philosophy, functions, roles, policies, practices, and ethics of the institutions of social control within the criminal justice system, especially the police, courts, and correctional personnel. The class is being taught by a former LAPD officer and will provide an in-depth analysis of police, police systems, and the police role.; limitations imposed on law enforcement in a democratic society following the Constitution; problems affecting crime control and the interdependence of police and community.

### **LAW IA/IB (P)**

**10 UNITS — TWO SEMESTERS    COURSE# 2415/2416**

#### **PREREQUISITES:**

- **11<sup>th</sup> or 12<sup>th</sup> graders only**

This course will provide the student with a law-related education that provides practical information and problem-solving skills for students with an interest in our law-saturated society. Emphasis is placed on role-playing through case studies, mock trials, and moot court. The fall semester will focus on the history, structure, and process of the criminal justice system, and the spring semester will focus on the civil courts.

# LANGUAGE OTHER THAN ENGLISH (LOTE)

All courses meet the UC/CSU "E" requirement for Language other than English

## Required courses:

Chair: Ms. Martha Lira

## Elective courses:

**SPANISH IA/IB (SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5101/5102

### **PREREQUISITE:**

- Oral/aural fluency in Spanish
- Spanish Placement Exam

This course fulfills the requirement for Spanish I. It is an introduction to the study of basic Spanish grammar for students who already have limited skills in grammatical rules, reading, and writing. This course strives to develop the following skills: speaking fluency with the incorporation of proper academic Spanish; knowledge of the origin, formation, and history of the Spanish language.

**SPANISH IA/IB (NON-SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5103/5104

### **PREREQUISITE:**

- Spanish Placement Exam

This course will enable students to attain an appropriate level of proficiency in the Spanish language with four basic language skills: listening, reading, speaking, and writing. An introduction to the history, geography, and culture of Spain is complementary to the course.

**SPANISH IIA/IIB (SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5213/5214

### **PREREQUISITE:**

- Spanish I Speaker

This course fulfills the requirement for Spanish II. This course is a continuation of Spanish I Speaker. The course will emphasize the acquisition of advanced grammar structures, writing techniques, and styles as well as introducing literature. The study of the history, geography, and culture of Spain and Latin America is an integral part of this course, which aims to promote knowledge, understanding, and appreciation of the Hispanic culture.

**SPANISH IIA/IIB (NON-SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5223/5224

### **PREREQUISITE:**

- Spanish I Non-Speaker

This course emphasizes mastery of all four skills: listening, reading, speaking, and writing. It also reviews the grammar principles of Spanish I. Dialogue and active performances through the appreciation of the customs and traditions presented. This course will also present the history, geography, and culture of the countries in Latin America.

**SPANISH IIIA/IIIB (SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5301/5302

### **PREREQUISITES:**

- C or better in Spanish II
- A in Spanish I and Teacher's Recommendation

In addition to the requirements of Spanish III non-speaker, this course will offer students the opportunity to study short stories, poetry, and other written works in Spanish. The student will also continue to increase his writing ability and his knowledge of the Spanish-speaking world. This course will be conducted in Spanish.

**SPANISH IIIA/IIIB (NON-SPEAKER) (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5303/5304

### **PREREQUISITES:**

- C or better in Spanish II

This course emphasizes mastery of all skills: listening, reading, speaking, and writing. It also reviews the grammar principles of Spanish II. This course emphasizes dialogue and creative and active performance through the appreciation of the customs and traditions presented through the units. It will also explore Hispanic culture and traditions to foster genuine interest, respect, pride, and love for the Hispanic heritage and its people.

**AP SPANISH LANGUAGE A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5510/5511

### **PREREQUISITES:**

- B or better in Spanish I, II, III
- Teacher's Recommendation

Advanced Placement in the Spanish Language is a literature-based course that is designed to cover the content of a Spanish Language course during the first year of college. The emphasis is on the following genres: short story, poetry, drama, essay, and novel. This course will prepare you for the AP Language exam, which is a requirement for this class. Students achieving a passing score on this exam (3-5) may meet the requirement for a college-level Spanish course.

# LANGUAGE OTHER THAN ENGLISH (LOTE)

All courses meet the UC/CSU "E" requirement for Language other than English

## Required courses:

**HONORS SPANISH IIA/IIB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5250/5251

**PREREQUISITE:**

- A or B in Spanish I Spk
- Teacher's Recommendation

This course fulfills the requirement for Spanish II. This course is a continuation of Honors Spanish I. This course builds on the fundamentals taught in Honors Spanish I. Instruction of grammar, vocabulary, composition, and culture are in greater depth and at an accelerated pace. The course will emphasize the acquisition of advanced grammar structures, writing techniques, and styles as well as literature. Oral proficiency is required of an advanced beginner or heritage speaker.

## Elective courses:

**HONORS SPANISH IIIA/IIIB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5305/5306

**PREREQUISITES:**

- A in Spanish II NS
- Teacher's Recommendation

This course emphasizes mastery of all skills: listening, reading, speaking, and writing. Students will read and analyze various works of literature from different periods such as poetry, short stories, and other written works in Spanish. Another integral part of the course will emphasize dialogue and creative and active performances through the appreciation of the customs and traditions presented through the units. Furthermore, the students will explore Hispanic culture and traditions to foster genuine interests, respect, pride, and love for the Hispanic heritage and its people.

**AP SPANISH LITERATURE AND CULTURE A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 5520/5523

**PREREQUISITES:**

- B or better in Spanish I, II
- Completed AP Spanish Language with C or Better
- A in Spanish III
- Teacher's Recommendation

This is a university-style survey course that will introduce the student to many literary works, styles, and forms recurrent in the literature of Spain and Latin America from the Middle Ages to the 20<sup>th</sup> Century. This course is preparation for the AP Spanish Literature Exam, which is a requirement for this class- administered in May. Reading includes El Lazarillo de Tormes, "Chac Mool", and El Burlador de Sevilla. This course will also help you form opinions about ideas based on logical reasons and evidence; to write well organized, clearly expressed thesis-based essays, and to organize and write quickly enough to be successful in college-level courses. A summer reading packet is required for this course. Achieving a passing score on this exam (3-5) may meet the requirement for a college-level Spanish course.

# VISUAL AND PERFORMING ARTS

All courses meet the UC/CSU "F" requirement for Visual and Performing Arts except as noted.

## Required courses:

**Chair: Mr. Noah Lopez**

## Elective Courses

**THEATRE ARTS IA/IB (P)**  
10 UNITS — TWO SEMESTER COURSE# 6570/6571

### **Theatre Arts (1 semester)**

This course introduces students to the craft of acting by way of improvisation, theater games, and exercises to develop flexibility, imagination, agility, and expressiveness in the beginning actor. The course organizes its material around two themes – the actor and the play. Theater Arts teaches students how to read monologues and play scripts analytically. Students learn to evaluate the play and the performance, and in doing so, they bring together the two themes of the course.

## Elective Courses

**STUDIO ART I A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 6512/6515

Students will be introduced to the basic skills needed for creative expression in the visual arts. The skills of perception, drawing techniques, composition, design, as well as the principles of color theory will be explored. Sculptural and functional ceramics will be created with an emphasis on the fundamental techniques in the construction and decoration of ceramics.

The fall semester focuses on ceramic processes. Students will learn a variety of hand-building techniques, laying the foundation for more ambitious projects. The use of glazes and painted surfaces are introduced for the decoration of the work. A variety of functional and sculptural work will be completed during the semester.

The spring semester begins with pencil and charcoal drawing, before moving on to pastels and painting techniques. The formal concepts of the design chart provide the basic formula for the development of two-dimensional artworks. The introductory concepts and techniques will be explored through the use of a variety of media. The skills acquired will prepare the student for future study and exploration in the visual arts. Students will also develop an appreciation for art as a vital aspect of human and cultural documentation.

Students will be introduced to important developments and key works and artists within the history of art. The study of drawing, painting, and sculpture will provide context and historical precedents for more contemporary works of art while providing points of departure for the creation of sophisticated student works.

Most importantly, students will come to understand that the skills of drawing and art creation can be learned just as any new skill is acquired, through patience and desire to succeed and learn. The basics of art do not require innate talent or special ability. This course is the prerequisite for Studio Art II.

**THEATRE ARTS II/III (P)**  
10 UNITS — TWO SEMESTERS COURSE# 6541/6545

### **PREREQUISITES:**

- **Completion of Theatre Arts I with a grade of**
- **"C "or better or instructor approval**

This course encourages competence for students in the craft of acting by way of improvisation, theater games, and exercise to develop flexibility, imagination, agility, and expressiveness. This course focuses on the roles of the actor and the director. Students learn how to analyze a play from the actor's and the director's point of view. The format of the course is one in which each student alternately acts and directs, as well as assisting other students with their projects. Students make analyses and evaluations of others' work as well as the plays and scenes they study during in-class performances. Students attend and evaluate a high school, equity waiver, and professional productions. Students will present one performance for guests during the first semester, and two during the second semester. These performances will be presented outside of class time. Participation in the class presentations is a requirement of all students.

**STUDIO ART II A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 6513/6514

### **PREREQUISITES:**

- **Completion of Studio Art I A/B with a grade of**
- **"B "or better or instructor approval**

Students will expand upon the basic concepts of Studio Art I. Building on the increased perceptual skills, basic techniques, composition and design, and color, more advanced materials and methods will be explored. Students will create both nonobjective and objective works based on fundamental concepts of design, spatial concerns, scale, as well as inspiration from nature and the human figure. A greater emphasis will be placed on content and personal expression through the use of various materials and subject matter.

The fall semester will focus on the introduction to the potter's wheel. Students will learn the fundamentals needed to create functional mugs, bowls, plates, vases, and lidded jars. Integrating notions of form and function will constantly challenge the artist/potter.

The spring semester places focus on more advanced problems in drawing, using a wider variety of drawing media, including graphite, charcoal, Conte crayon, ink, pastels, and acrylic paint on canvas. Students will derive inspiration from still lives, photo compositions, and nature. This course is the prerequisite for Studio Art III.

# VISUAL AND PERFORMING ARTS

All courses meet the UC/CSU "F" requirement for Visual and Performing Arts except as noted.

## Elective Courses

**STUDIO ART IIIA/IIIB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 6534/6535

**PREREQUISITES:**

- Any Senior who has completed Studio Art II with a B or better
- Instructor Approval

This course represents the culmination of the studio art experience at Cathedral High School and is for those committed to their ongoing personal growth in the visual arts. The course will focus on more advanced problems in drawing, painting, or ceramics, with an emphasis on independent study. The use of a variety of drawing and sculptural techniques must be completed throughout the year-long course.

The fall semester entails ceramics and sculpture. The student may pursue the mastery of the potter's wheel, or hand building, with an emphasis on an appropriate surface.

**MEDIA GRAPHICS IA/IB (P)**  
10 UNITS — TWO SEMESTERS COURSE# 6600/6601

**PREREQUISITES:**

- Computer Literacy with a C- or better
- Lab Fee \$50.00

This yearlong course is a beginning and intermediate study in contemporary media. The class builds on the knowledge gained in Computer Literacy as well as emphasizing the elements of art, principles of design, and visual expression. Students will complete graphic design and illustration projects and be introduced to animation. Upon completion of this course, students will be able to perform a variety of real-world graphic applications. Software used: Photoshop, Illustrator, Adobe Image ready, and Flash.

**BAND IA/IB (P)\***  
10 UNITS — TWO SEMESTERS COURSE# 6580/6585  
\* = may not be offered

This course will endeavor to cover four disciplines of music – performance, history, theory, and aural skills, by studying music's four general qualities – melody, harmony, rhythm, and dynamics. These qualities will be explored within the environment of three performance settings. The performance opportunities offered will include solo, chamber, and large ensemble work. The performance aspect of the course will culminate with a successful concert each semester.

**BAND IIA/IIIB (P)\***  
10 UNITS — TWO SEMESTERS COURSE# 6581/6588  
\* = may not be offered

This course will continue to cover the four disciplines of music – performance, history, theory, and aural skills, by studying music's four general qualities – melody, harmony, rhythm, and dynamics, in a more focused and rigorous environment. These qualities will also be explored within the environment of three performance settings. The performance opportunities offered will again include solo, chamber, and large ensemble work. The performance aspect of the course will culminate with a successful concert each semester, comprised of increasingly more difficult compositions.

**MEDIA GRAPHICS IIA/IIIB (P)\***  
10 UNITS — TWO SEMESTERS COURSE# 6605/6606  
\* = may not be offered

**PREREQUISITES:**

- Media Graphics I with a C- or better
- Lab Fee \$50.00

Students will be provided with the necessary experience to master the professional software most commonly used in the field of design. Introduce students to the work processes of graphic editing and different media (paper, digital). Support the concepts that students will learn in other subjects on the syllabus utilizing technological tools. Train students so that they can successfully send documents for printing. Strengthen the digital competencies required for the profession, both the use of online tools and the acquisition of good habits.

# VISUAL AND PERFORMING ARTS

All courses meet the UC/CSU "F" requirement for Visual and Performing Arts except as noted.

## Elective Courses

### **VIDEO PRODUCTION I / TV MEDIA DESIGN (P)** **10 UNITS — TWO SEMESTERS COURSE# 3504/3508**

#### **PREREQUISITES:**

- C+ or better in all English classes, interview & Instructor's approval.

- Lab fee \$50.00

This yearlong course is designed to introduce students to the art of film making and develop media literacy. Students will utilize their creativity and artistic expression to write, stage, acting, edit, direct, record and produce live and taped productions. Students will analyze, evaluate, and write critiques of video presentations by peers and professionals. They will also study the history of film production and the cultural context of the media in today's world. The relationship and impact of video production and the media to other disciplines and aspects of life will be discussed. Careers in the media will be explored. Techniques learned will include a single camera (film style) and multi-camera productions of pre-taped and live Cathedral High School Television (KCHS-Los Angeles) productions. No experience is required for this course. Students are required to attend activities outside the regular school day.

### **VIDEO PRODUCTION II (Non-UC)** **10 UNITS — TWO SEMESTERS COURSE# 3503/3507**

#### **PREREQUISITES:**

- C+ or better in all English classes, interview & Instructor's approval.

- Lab fee \$50.00

This course will explore the theory and practice of advanced video production within the context of art and culture. The relationship of video art to television and other mainstream media will be one focus of the course. This advanced class is designed for students who can work independently, scheduling time outside of class to produce films, present "work in progress" in class, participate in critiques, and complete research. Class time will be spend screening work, discussing readings and research, participating in workshops, further development of technical skills, and production of KCHS-LA presentations. This course will include relevant reading and research, writing scripts, and producing half-hour and hour-long broadcast utilizing advanced lighting and audio recording, digitizing advanced nonlinear editing, and digital audio mixing. Grading is based on the quality of work produced and performance on written exams. All necessary equipment is provided; students must supply videotape for personal projects.

### **SPORTS BROADCASTING (P)\*** **10 UNITS — TWO SEMESTERS COURSE# 6700/6701** **\* = may not be offered**

#### **PREREQUISITES:**

- Video Production 1

This class is an opportunity for students to hone their video production skills while producing publishable content. Specifically, students will learn to produce sports programs — live sporting events and sports programs — which will potentially air on the school's website and will stream live on the Internet. As part of this very hands-on, project-driven course, students will learn the responsibilities and skills necessary to assume the following roles in sports broadcasting: producer, director, editor, play-by-play commentator, color analyst, sideline reporter, spotters and statisticians, audio and video technicians, camera operators, and graphics and replay technicians. Students will produce the "sports segment" that will be integrated into the daily school news broadcast. The group will be responsible for all elements of the production including preparing/setting up equipment, play by play, camera operation, technical direction, etc for live school sporting competitions. Students will also write, shoot, and produce sports features such as interviews and documentaries to air during the daily news broadcast. Students will also produce digital content, primarily for social media, to increase audience reach and engagement with live event broadcasts and studio shows. They will also analyze business developments and trends, including content models, in the sports broadcast industry.

### **MUSIC APPRECIATION (P)** **10 UNITS — TWO SEMESTERS COURSE# 2612/2614**

This music appreciation course is a curricular laboratory for the exploration and development of the voice and to increase knowledge of musical terms, musical instruments, and musical genres. Practical experiences in singing is the foundation upon which the Music Appreciation curriculum is based. You have an opportunity to explore, excel, experience, and expand your horizons. Through this course, you will learn to sing, as well as expand your musical knowledge.

# Computer Science and Engineering

All Computer Science and Engineering department courses are aligned with the California State Standards for the Math or Science and meet UC/CSU "C" requirements for Math or Science except as noted.

**Chair: Mr. Anthony Trafecanty**

## Elective Courses:

**AP COMPUTER SCIENCE PRINCIPLES A/B (P)**  
10 UNITS — TWO SEMESTERS COURSE# 3092/3093

**PREREQUISITES:**

Computer Science Teacher Recommendation and concurrent enrollment in Algebra 2 or higher-level class. Must have a "B" average or better in Math, Science, and Computer Science classes.

**Language:** Scratch and Python

AP Computer Science Principles is a college-level year-long class in computer science that will focus on computational thinking and the tools needed to analyze, study, and work with large data sets to conclude trends. This course is interdisciplinary as students explore how computer software and other technology can be used to solve problems. It will focus on the ethical implications of technology alongside the mechanical components. Students will learn Scratch and Python programming languages. It is part of the Amazon Future Engineer Program. Students must take the AP Computer Science Principles exam in May. Advanced Placement Computer Science Principles is aligned with the California State Standards for Science and meets UC/CSU "D" requirements for Science.

**ROBOTICS I (P)**  
10 UNITS – TWO SEMESTERS COURSE# 4800/4801

**PREREQUISITES:**

Math and Computer Science (if it applies) Teacher Recommendation and "C+" or higher in both semesters of Algebra 2 or a "C" in Honors Algebra 2.

**Language:** Java

Robotics is a one-year course that may be repeated for credit. The course will cover conceptual and algebra-based physics, mechanical components, computer-aided design of mechanical systems, engineering problem solving, JAVA computer programming, electronics theory and design, and control systems concepts and implementation. During the second semester, one of the projects will be the design and construction of a robot for the FIRST robotics competition. Our students will accomplish a variety of design and building projects throughout the year, working in groups. Students will research and create various presentations and written reports on engineering topics throughout the course.

Our goal is to form capable leaders in STEAM (Science, Technology, Engineering, Arts and Math) and other fields through participation in FIRST Robotics. Through planning, designing, building, and programming a robot that competes against other FIRST robotics teams, our students gain real, hands-on, technical engineering training, and develop skills in leadership, collaboration, communication, planning, fundraising, public relations, and more. Our goals are to inspire our young men to pursue STEAM in their careers and be prepared to handle whatever demands are placed upon them in their education and careers.

**AP COMPUTER SCIENCE A (P) (JAVA) A/B**  
10 UNITS — TWO SEMESTERS COURSE# 7554/7555

**PREREQUISITES:**

Computer Science Teacher Recommendation and concurrent enrollment in Algebra 2 or higher class. Must have a "B" average or better in Math, Science, and Computer Science classes.

**Language:** Java

AP Computer Science A is a college-level programming class in Java, a popular in-demand programming language. Java is used to build server-side applications, games, and financial applications, and is the core foundation for developing Android apps. Students will be introduced to topics that include problem-solving, design strategies and methodologies, organization of data (data structure), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. It is part of the Amazon Future Engineer Program. Students must take the AP Computer Science A exam in May. Advanced Placement Computer Science A is aligned with the California State Standards for Math and meet UC/CSU "C" requirements for Math.

**ROBOTICS II (P)**  
10 UNITS – TWO SEMESTERS COURSE# 4802/4803

**PREREQUISITES:**

B or higher in Robotics I  
Teacher Recommendation

**Language:** Java

Students will continue their work from Robotics I to work in engineering teams to design, build, and test increasingly complex robots. The course will illustrate the engineering design process, the importance of integrating sensors, and complex machine control, and briefly discuss robot learning and multi-robot systems. Students will be expected to solve challenges using physical robots and computer simulations. Students will work in teams to complete a larger design problem and participate in local and regional competitions. Special attention will be paid to the design process and its communication through both presentation and documentation. Students will explore additional hardware and software solutions to robotics problems. Students will learn advanced hardware and software techniques, as well as mathematics and physics to understand them in a hands-on, lab-centric environment.

**COMPUTER SCIENCE / PYTHON CODING (P) IA/IB**  
**10 UNITS — TWO SEMESTERS COURSE# 7550/7551**

**PREREQUISITES:**

Computer Science Teacher Recommendation and concurrent enrollment in Geometry or higher-level class. Must have a "C+" average or better in Math, Science, and Computer Science classes.

**Language:** Python

This year-long course is designed to offer an introduction to computer science. Students will learn the basics of computer programming along with the basics of computer science. The material emphasizes computational thinking and helps develop the ability to solve complex problems. This course covers the basic building blocks of programming along with other central elements of computer science. It gives a foundation in the tools used in computer science and prepares students for further study in computer science, including AP Computer Science Principles and AP Computer Science A courses. This course satisfies the "A-G" math elective requirement for admission to the UC/Cal State university system. It is part of the Amazon Future Engineer Program.

**E-SPORTS (P)**  
**10 UNITS – TWO SEMESTERS COURSE# 7561/7562**

**PREREQUISITES: Teacher Recommendation**

E-Sports is a one-year course that may be repeated for credit. The course is designed to introduce interested students to the world of competitive gaming and prepare them for a possible future in eSports. This course will feature a combination of studying the art of playing video games, competing, and self-reflection. Each day, the students will enter the class and experience a topical lecture given by the instructor. This time will be filled with teachings to prepare students to compete at higher levels of Esports.

In addition, students will spend class-time Learning the fundamental techniques, strategies and communication skills required to compete in competitive and professional esports competitions. This will include time practicing in their prospective games and participating in tournaments to test their abilities against other members of the competitive esports community. These tournaments will be held through the NASEF platform against other high school Esports teams and through the built in competitive matchmaking found within their prospective games. Furthermore, students will be required to complete a paper detailing and analyzing their personal statistics from their competitive season to demonstrate their ability to self-reflect and disseminate information that coaches would analyze at the collegiate and professional levels.

**E-SPORTS 2 (P)**  
**10 UNITS – TWO SEMESTERS COURSE# 7563/7564**

**PREREQUISITES: E-Sports 1**

E-Sports 2 gives students a well-rounded understanding of the financial climate of the esports ecosystem by showing how leading market players interact with each other through micro and macro transactions that lead to the growth of the esports industry within the global entertainment market. The course starts by building fundamental economic knowledge and esports marketing terms (i.e., fan behavior analytics) that form the backbone of the industry. Then we elaborate on the variables involved in understanding the behavior of esports consumers, such as demographics, engagement, community, predictability, gaming trends, etc., in understanding strategies of generating revenue for different agents. As a part of the course's laboratory component, students will carry out a social media campaign to generate revenues for their team that require them to use their marketing, goal-setting, risk-taking, interpersonal and creative skills. The goal of this course is ultimately to give students hands-on experience in marketing an esports team in preparing for the competitive nature of the growing esports industry.

**E-SPORTS 3 (P)**  
**10 UNITS – TWO SEMESTERS COURSE# 7565/7566**

**PREREQUISITES: E-Sports 1, 2**

This 3rd-year course explores the branding, distribution, and sales aspects of consumer and business decision-making. A critical component involves evaluating businesses through detailed case studies. Throughout the year, students will undertake major projects that require them to write analytical papers assessing the effectiveness of various marketing strategies employed by companies.

As the course progresses, students will engage with more sophisticated elements of marketing plans, emphasizing the essential relationship between sellers and consumers in product promotion. A multifaceted approach is necessary, incorporating creativity, ethics, and consumer satisfaction. Research and collaboration will be key factors for success in this course, enabling students to develop comprehensive marketing strategies.

## **PHYSICAL EDUCATION**

### **Chair: Mr. John Ferrante**

**Physical Education**

**(GRADUATION REQUIREMENT)**

**10 UNITS — TWO SEMESTERS COURSE# 8120/8121**

This year-long physical education course is a new graduation requirement for students who are not playing on a school sports team. Students must enroll in this class in either their sophomore, junior or senior year. The class is intended to provide exercise and the proper instruction to enhance physical fitness and strength for proper health and diet. This course would not be required if a student plays on a school team and is enrolled in an Interscholastic Sports class.

# PHYSICAL EDUCATION

Chair: Mr. John Ferrante

**INTERSCHOLASTIC SPORT SOCCER A/B**  
(REQUIRED FOR PLAYING SOCCER)  
10 UNITS — TWO SEMESTERS COURSE# 8210/8211

This year-long course is required for students playing on a school sports team so the student may be in condition and receive instruction to assist with their participation and skills necessary to compete on a Cathedral High School sports team. If the school offers this class for a particular team the student is required to be enrolled in this class to be part of the team. Since this is a year-long course, students enrolled must remain in the class before the sport begins and after the conclusion of the particular season. If a student plays more than one sport, the Dean of Studies will assist the student in adjusting to meet all academic and team sports-related requirements.

**INTERSCHOLASTIC SPORT BASEBALL A/B**  
(REQUIRED FOR PLAYING BASEBALL)  
10 UNITS — TWO SEMESTERS COURSE# 8220/8221

This year-long course is required for students playing on a school sports team so the student may be in condition and receive instruction to assist with their participation and skills necessary to compete on a Cathedral High School sports team. If the school offers this class for a particular team, the student is required to be enrolled in this class to be part of the team. Since this is a year-long course, students enrolled must remain in the class before the sport begins and after the conclusion of the season. If a student plays more than one sport, the Dean of Studies will assist the student in adjusting to meet all academic and team sports-related requirements.

## NON-DEPARTMENTAL

**ATTENDANCE AIDE (NON-UC)**  
10 UNITS — TWO SEMESTERS COURSE# 9530

### PREREQUISITES:

- Approval of Dean of Students
- 12<sup>th</sup> Grade only

Duties include collecting attendance sheets from classrooms and performing various clerical tasks for the Attendance Office. This course may be taken more than once.

**PUBLICATIONS (P)**  
10 UNITS — TWO SEMESTERS COURSE# 1502

### PREREQUISITES:

- Approval of the Instructor
- Completion of Media Graphics

This course incorporates and emphasizes cooperative learning for the student with the vocabulary and techniques of publishing. This course requires creativity, imagination, and dedication for the student's primary responsibility will be to work on all aspects of publishing the yearbook. Students will acquire the skills for copywriting, photography, art, layout, editing, advertising, and public relations. This course does not fulfill the UC/CSU requirements for a Visual and Performing Arts course at this time. This course may be taken more than once.

**INTERSCHOLASTIC SPORT FOOTBALL A/B**  
(REQUIRED FOR PLAYING FOOTBALL)  
10 UNITS — TWO SEMESTERS COURSE# 8200/8201

This year-long course is required for students playing on a school sports team so the student may be in condition and receive instruction to assist with their participation and skills necessary to compete on a Cathedral High School sports team. If the school offers this class for a particular team the student is required to be enrolled in this class to be part of the team. Since this is a year-long course, students enrolled must remain in the class before the sport begins and after the conclusion of the particular season. If a student plays more than one sport, the Dean of Studies will assist the student in adjusting to meet all academic and team sports-related requirements.

**INTERSCHOLASTIC SPORT BASKETBALL A/B**  
(REQUIRED FOR PLAYING BASKETBALL)  
10 UNITS — TWO SEMESTERS COURSE# 8240/8241

This year-long course is required for students playing on a school sports team so the student may be in condition and receive instruction to assist with their participation and skills necessary to compete on a Cathedral High School sports team. If the school offers this class for a particular team, the student is required to be enrolled in this class to be part of the team. Since this is a year-long course, students enrolled must remain in the class before the sport begins and after the conclusion of the season. If a student plays more than one sport, the Dean of Studies will assist the student in adjusting to meet all academic and team sports-related requirements.

**STUDY SKILLS (NON-UC)**  
10 UNITS — TWO SEMESTERS COURSE# 7605

### PREREQUISITES:

- Approval of Dean of Studies

This course is designed to teach and to help students with the implementation of study skills that will enable high school students to be even more successful in their academic studies. This course focuses on identifying the students' learning styles and, within the parameter of their learning styles, developing study skills that will empower them to reach their academic potential. It also helps the students balance their workload so that they can be successful. The course also aids in helping students if they require additional academic support. This course meets in the library and is assisted by the Librarian. Grading for this course is by a letter grade.

**COMMUNITY COLLEGE  
CONCURRENT ENROLLMENT**  
5 - 10 UNITS

### PREREQUISITES:

- Approval of Dean of Studies

Seniors and Juniors may take one elective course at a local Community College. The student is responsible for obtaining approval for such a program from the Dean of Studies and must provide the school with certified evidence of enrollment in the course, as well as the final grade received in the course. Cathedral reserves the right to accept graduation courses. Approval must be granted before students enroll in a class. Cathedral grants elective credit for such courses, failure to complete a course after proper enrollment may jeopardize the graduation of a student.



## Goals and Objectives for

### Freshman Year

**Goal #1: Become aware of the Cathedral High School Four-Year College Counseling Program and begin college planning process by:**

1. Visiting the Freshman Academic Counselor at least twice regarding the College Counseling Program
2. Demonstrating an understanding of the A-G requirements.
3. Understanding NCAA requirements, if interested in participating in collegiate sports programs
4. Participating in the college visitation program.
5. Articulating the purpose of a college preparatory school.
6. Outlining the College Counseling Program.

**Goal #2: Begin the process by which you will promote yourself as a competitive college candidate by:**

1. Articulating the need to take academically challenging classes.
2. Participating in at least one extracurricular, and one co-curricular activity and identify ways to become involved in additional activities.
3. Making up any “D” or “F” grades received during the freshman year.
4. Developing and utilizing effective study habits.

**Goal #3: Begin preparing for the College Board exams by:**

1. Taking the STS II test in October of freshman year.
2. Completing practice SAT questions at [www.collegeboard.com](http://www.collegeboard.com) and developing the skills necessary to do well on the exam.
3. Meeting with the Freshman Academic Counselor to discuss the results of any standardized test to identify personal growth areas.
4. Planning a summer reading list to help improve vocabulary and language skills.
5. Identifying the importance of the PSAT, SAT I, ACT and the SAT II tests in the college admission process.

**Goal #4: Begin a College Planning Portfolio by:**

1. Creating two folders, one for school and one to keep at home.
2. Completing the personal information contained in the College Counseling Program Inventory.
3. Including a list of any extracurricular or co-curricular activities participated during the freshman year.
4. Creating a list of any special awards, honors, or achievements received in the freshmen year.

## Freshman Year Checklist

- \_\_\_\_\_ 1. I understand and can describe the Four-Year College Counseling Program.
- \_\_\_\_\_ 2. I understand the A-G requirements for UC/CSU college admission.
- \_\_\_\_\_ 3. I understand the NCAA requirements for athletic participation in college.
- \_\_\_\_\_ 4. I can explain what is meant by a college preparatory school.
- \_\_\_\_\_ 5. I have completed the College Counseling Program Inventory.
- \_\_\_\_\_ 6. I have participated in and made a list of my extracurricular activities.
- \_\_\_\_\_ 7. I have made a list of honors, academic awards, and/or achievements I received.
- \_\_\_\_\_ 8. I have created two portfolio folders, one for school and one for home.
- \_\_\_\_\_ 9. I have created an account at [www.collegeboard.com](http://www.collegeboard.com).

## **Goals and Objectives for Sophomore Year**

### **Goal #1: Continue the Cathedral High School Four-Year College Counseling Program process by becoming aware of different types of colleges by:**

1. Identifying the difference between California State, University of California, and private universities.
2. Visiting the Sophomore Academic Counselor at least twice regarding the college counseling program.
3. Demonstrating an understanding of the A-G requirements.
4. Understanding the NCAA requirements, if interested in participating in collegiate sports programs.
5. Participating in the college visitation program.
6. Continuing an articulation of the purpose of a college preparatory school.

### **Goal #2: Continue the process by which you will promote yourself as a competitive college candidate by:**

1. Articulating the need to take academically challenging classes.
2. Participate in at least one extracurricular and one co-curricular activity and identifying ways to be involved in additional activities.
3. Making up any “D” or “F” grades received during the sophomore year.
4. Developing and utilizing effective study habits.
5. Maintaining good work habits and continuing to strive for academic excellence.
6. Taking challenging summer enrichment classes.

### **Goal #3: Continue preparing for the College Board exams by:**

1. Taking the PSAT in October of sophomore year.
2. Doing the practice SAT questions at [www.collegeboard.com](http://www.collegeboard.com) and developing the skills necessary to do well on the exam.
3. Meeting with the Sophomore Academic Counselor to discuss the results of any standardized test to identify personal growth areas.
4. Planning a summer reading list to help improve vocabulary and language skills.
5. Identifying the importance of the PSAT, SAT I, ACT and the SAT II tests in the college admission process.

### **Goal #4: Continue developing the College Planning Portfolio by:**

1. Placing any College Board test scores in your folders, as applicable.
2. Adding to the list any extracurricular or co-curricular activities participated in the sophomore year.
3. Adding to your list any special awards, honors, or achievements received during sophomore year.

## Sophomore Year Checklist

- \_\_\_ 1. I can identify differences between California State, University of California, and private universities.
- \_\_\_ 2. I have visited the Sophomore Academic Counselor at least twice regarding College counseling.
- \_\_\_ 3. I can demonstrate an understanding of the A-G requirements required for admission to the college of my choice.
- \_\_\_ 4. I can articulate the need to take academically challenging classes.
- \_\_\_ 5. I have participated in at least one extracurricular and one co-curricular activity and I am adding to my list of extracurricular or co-curricular activities.
- \_\_\_ 6. I have made up any “D” or “F” grades received in the sophomore year.
- \_\_\_ 7. I maintain good work habits and continue to attain academic excellence.
- \_\_\_ 8. I have taken challenging summer enrichment classes.
- \_\_\_ 9. I am doing the practice SAT questions at [www.collegeboard.com](http://www.collegeboard.com), and I am developing the skills necessary to do well on the exam.
- \_\_\_ 10. I have read the books on the summer reading list.
- \_\_\_ 11. I can identify the importance of the PSAT, SAT I, ACT and the SAT II tests in the college admission process.
- \_\_\_ 12. I have added to my list of special awards, honors, or achievements received during my Sophomore year.

## **Goals and Objectives for Junior Year**

**Goal #1: Continue the Cathedral High School Four-Year College Counseling Program by beginning the college selection and funding process. Specifically:**

1. Continue to participate in the college visitation program.
2. Participate in college fairs and the sophomore/junior college night.
3. Articulate the differences among various sources for funding college (grants, loans, scholarships, etc.) and list eight scholarships you could apply for during your senior year.
4. Realistically narrow your university selection to 8 colleges.
5. Acquire all necessary government documents required for college admission and financial aid.
6. Attend on-site college visits as appropriate.

**Goal #2: Continue the process by which you will promote yourself as a competitive college candidate by:**

1. Taking the PSAT, SAT I, ACT, and SAT II exams at least once by the end of your junior year.
2. Participating in at least one extracurricular and one co-curricular activity and identifying ways to become involved in additional activities.
3. Making up any "D" or "F" grades received the Junior year.
4. Maintaining good work habits and continuing to seek academic excellence.
5. Taking challenging summer enrichment classes at community and four-year colleges.
6. Taking Advanced Placement exams, as applicable.

**Goal #3: Continue preparation for and taking College Board exams by:**

1. Enrolling in an SAT preparation class, or by using SAT preparation materials such as computer programs or books.
2. Taking Advance Placement exams, if applicable.
3. Continuing your summer reading program.
4. Meeting with the Junior Academic Advisor to discuss the results of any College Board exam.

**Goal #4: Prepare your College Planning Portfolio to be of use in the college admission process by:**

1. Creating a resume from materials in your portfolio.
2. Adding to your list any extracurricular or co-curricular activities participated in during the junior year.
3. Adding to your list any special awards, honors or achievements received in the junior year.
4. Adding a copy of all current tax forms (in May) to get ready for FAFSA.
5. Organizing material to prepare for your statement (college essay).
6. Creating a list of potential sources for recommendation letters and collecting recommendation letters as appropriate.
7. Generating 15 questions you will be asked, and 15 questions you want to ask in an interview situation.

## Junior Year Important Dates

### College Fairs

Cathedral High School College Fair: Fall (October in most years)

Greater Los Angeles College Fair: Spring (Pasadena and Anaheim)

### College Visit Day

Fall (October in most years)

Students are encouraged to visit area colleges and universities

*See Counseling Page or Naviance advice on how to visit colleges and universities.*

### Junior Parent College Night:

Cathedral High School:

Fall (October in most years)

### SAT / ACT Practice Tests:

Practice sessions for the SAT and ACT are available throughout the year.

### Standardized Tests: Registration and Dates

Most four-year colleges either require or recommend students submit an SAT or ACT test score when determining admission. Although technically optional, most students would probably benefit from the submission of a test score. Students at Cathedral are encouraged to take both the SAT and ACT and submit the best test score. In addition, many four-year schools (UC's, for example) require students to take the SAT II subject tests to be used for admission to specialized and competitive programs. **Students are strongly encouraged to register and take both the SAT I and the ACT.**

To **register for the SAT**, you need to become a user of the College Board's website [www.collegeboard.com](http://www.collegeboard.com). This site has valuable information about most universities and assistance in preparing for the SAT I and the SAT II. (Visit Naviance or the CHS website for a link)

To **register for the ACT**, please visit [www.actstudent.org](http://www.actstudent.org).

**Tests are offered at various times throughout the year.**

**Please consider these recommended test times**

**SAT I**            **May, July (Registration deadlines at least one month before test date)**

**SAT II**          **June (Registration deadlines at least one month before test date)**

**ACT**            **June, August (Registration deadlines at least one month before test date)**



## **Goals and Objectives for Senior Year**

**Goal #1: Finalize the Cathedral High School Four-Year College Counseling Program by completing the college selection and funding process. Specifically:**

1. Attending college fairs and FAFSA workshops.
2. Participating in the college visitation program.
3. Continuing to attend on-site college visits, as appropriate.
4. Completing California State and University of California applications by November 1.
5. Completing the FAFSA application by February 7.
6. Completing all activities as indicated on the “Senior Timeline” by the date listed.
7. Applying for at least 4 scholarships from the list generated in the junior year.
8. Finalizing your specific college choice by April 15.

**Goal #2: Finalize the process by which you will promote yourself as a competitive college candidate:**

1. Retaking the SAT I and SAT II as necessary.
2. Retaking Advanced Placement exams as applicable and taking other Advanced Placement exams as appropriate.
3. Continuing your involvement in extracurricular and co-curricular activities.
4. Making up any “D” or “F” grades at an approved off-campus school site.

**Goal #3: Continue preparation for and taking College Board exams by:**

1. Continuing to review SAT preparation materials.
2. Continuing to review Advanced Placement materials.
3. Retaking all standardized college admission tests.

**Goal #4: Utilize your College Planning Portfolio to market yourself to colleges by:**

1. Writing your statement (college essay) by September 30.
2. Collecting and inserting at least three letters of recommendation by December 15.
3. Updating your list of extracurricular and co-curricular activities by October 1.
4. Updating your financial information by February 1.
5. Engaging in at least two mock interviews by November 1.

# MASTER LIST OF COURSES 2026-2027

## Religious Studies

Religious Studies I  
Religious Studies II  
Religious Studies III  
World Religions (P)  
Vocations  
Frosh Seminar: Diversity and Inclusion

## English

English I (P)  
Honors English I (P)  
English II (P)  
Honors English II (P)  
English III (P)  
Honors English III (P)  
English IV (P)  
AP English Literature (P)  
AP English Language (P)  
Great Books (P)  
Lit to Film (P)  
Utopian Literature (P)

## Mathematics

Math Lab  
Algebra I (P)  
Geometry (P)  
Honors Geometry (P)  
Algebra II (P)  
Honors Algebra II (P)  
Pre-Calculus (P)  
Honors Pre-Calculus (P)  
AP Pre-Calculus (P)  
AP Calculus A/B (P)  
AP Calculus BC (P)  
Business Math (P)

## Computer Science and Engineering

AP Computer Science A (JAVA) (P)  
AP Computer Science Principles (P)  
Computer Science – Python  
Robotics I, II, III(P)  
E-Sports I (P)  
E-Sports II (P)  
E-Sports III (P)  
Honors Software Engineering (P)

## Science

Biology (P)  
Honors Biology (P)  
Chemistry (P)  
Honors Chemistry (P)  
Physics (P)  
Honors Physics (P)  
AP Biology (P)  
AP Chemistry 1-2 (P)  
AP Physics I (P)  
Human Physiology & Anatomy (P)  
Honors Software Engineering (P)

## Social Studies

World History (P)  
Honors World History (P)  
United States History (P)  
AP United States History (P)  
United States Government (P)  
AP US Government (P)  
Psychology (P)  
Criminal Justice (P)  
Law I (P)

## Language other than English (LOTE)

Spanish I (P)  
Spanish I Non-Speaker (P)  
Spanish II (P)  
Spanish II Non-Speaker (P)  
Honors Spanish II (P)  
Spanish III (P)  
Spanish III Non-Speaker (P)  
Honors Spanish III (P)  
AP Spanish Language (P)  
AP Spanish Literature and Culture (P)

## Visual and Performing Arts

**Band I (P)\***  
**Band II (P)\***  
**Band III (P)\***  
**Band IV (P)\***  
**Choir**  
Studio Art I (P)  
Studio Art II (P)  
Studio Art III (P)  
Theater Arts I (P)  
**Theater Arts II/III (P)\***  
Media Graphics I (P)  
**Media Graphics II/III (P)\***  
Music Appreciation (P)  
**Sports Broadcasting (P)\***  
Video Prod I/ TV Media Design (P)  
Video Production II (P)

\* = may not be offered

## Physical Education

Physical Education  
Interscholastic Sports

## Unclassified Courses

Publications (P)  
Library Aide  
Office Aide  
Teacher's Aide  
Study Skills

*Students Enter to Learn & Leave to Serve*

# Math & Science Academy Scholar

## Program Director

Mrs. Darcy Lopez

dlopez@chsla.org,

## Math and Science Academy

The Math and Science Academy is designed for high-level Freshmen who are interested in completing a full four-year Advanced Placement (AP) Program. Students will be required to pass a Math placement exam.

### COURSE DISTINCTIONS

#### College Preparatory (P) Courses

These courses are designed to be a challenge for the student preparing for a college education. The material covered in these courses is presented in a detailed fashion at a pace designed for all students.

### HONORS COURSES

The course content is essentially the same in most honors sections as it is in the college preparatory classes. Honors sections, however, are conducted at a more accelerated pace and with greater intellectual intensity. Honors courses are traditionally more competitive.

### ADVANCED PLACEMENT (AP) COURSE

Cathedral High School also participates in the nationwide Advanced Placement program of college-level instruction in high school by offering Advanced Placement courses. Students who complete these classes are eligible to take college grade examinations prepared by the College Entrance Examination Board. Success in the examination will earn the student college credits, advanced placement in college, or both.

## Math and Science Academy Freshmen Classes

The following program of studies is required for freshmen students enrolled in the Math and Science Academy. Students must take seven (7) courses for each year of enrollment. All required courses must be taken at Cathedral High School.

### FRESHMEN ACADEMY PROGRAM OF STUDIES

HONORS ENGLISH I  
RELIGION 9  
HONORS ALGEBRA II (P)  
HONORS BIOLOGY (P)  
SPANISH I (P)  
COMPUTER SCIENCE: PYTHON (P)  
THEATER ARTS/ DIVERSITY AND INCLUSION

### SUMMER CLASS

(TAKEN before 9TH GRADE)

**A SUMMER GEOMETRY HONORS CLASS IS REQUIRED FOR ENTRY INTO THE ACADEMY**

# Onward Scholars Program

## Program Director

**Mr. Jelani Bramble-Manning (323) 441-3166,  
jbmanning@onwardscholars.org**

### ONWARD SCHOLARS MISSION STATEMENT & GRADE LEVEL FOCUS AREAS

The Onward Scholars Program promotes academic excellence, fosters an environment conducive to genuine peer support, exposes students to leadership opportunities that instill a love of service, and empowers goal-driven young men and women by providing resources that build skills for their path to higher education and lives of purpose.

We remain committed to our mission through the implementation of the following grade level focus areas:



## 9<sup>th</sup>

- study skills
- time management & organization
- communication
- impactful school involvement

## 10<sup>th</sup>

- SAT/ACT prep
- college major & career exploration
- visit colleges in California

## 11<sup>th</sup>

- SAT/ACT prep
- build college list
- college essay workshops
- out-of-state college trip

## 12<sup>th</sup>

- college application process
- prepare scholarship applications
- academic & social transition to college

## 9-12

- social & emotional learning (SEL)  
self-awareness, self-management, social awareness, relationship skills, responsible decision making
- financial literacy
- health & wellness
- leadership skills
- community service
- connections to summer programs