



**San Diego Unified**  
SCHOOL DISTRICT

**Junipero Serra High School**

P- 858.496.8342

F- 858.571.3457

[www.serra.sandi.net](http://www.serra.sandi.net)



2019 - 2020

# Course Offerings Catalogue

*Last updated: March 4, 2019*

# 2019 - 2020 Serra Course Offerings



## Table of Contents

Subject and Course Requirements (A-G)	<a href="#">Page 03</a>
Weighted and Specialized Courses	<a href="#">Page 04</a>
Serra High School Course List for UC/CSU Requirements	<a href="#">Page 05</a>
General Requirements	<a href="#">Page 06</a>
Diploma Options	<a href="#">Page 07</a>
A. Social Studies	<a href="#">Page 08</a>
B. English Language Arts	<a href="#">Page 11</a>
C. Mathematics	<a href="#">Page 14</a>
D. Science	<a href="#">Page 17</a>
E. World Language	<a href="#">Page 20</a>
F. Visual and Performing Arts (VAPA)	<a href="#">Page 21</a>
G. Electives	<a href="#">Page 25</a>
PE Physical Education	<a href="#">Page 27</a>
NJROTC	<a href="#">Page 29</a>
Serra Pathways	<a href="#">Page 32</a>

# 2019 - 2020 Serra Course Offerings

[Graphic Design](#)   [Video Production](#)   [Engineering](#)   [Biomed](#)  
[VAPA](#)



## SUBJECT AND COURSE (A-G) REQUIREMENTS

*Minimum Semester Credits Required for Graduation – 44, Total Semester Credits Possible – 48 (without summer school)*

- A. **Social Studies – 6 semester credits**
  - Grade 10 – World History and Geography- 2 credits
  - Grade 11 – U.S. History (or advanced alternative) – 2 credits
  - Grade 12 – Government and Economics (or advanced alternative) –2 credits
  
- B. **English Language Arts– 8 semester credits**
  - Grade 9 English – 2 credits
  - Grade 10 English – 2 credits
  - Grade 11 English – 2 credits (emphasis on American Literature)
  - Grade 12 English – 2 credits (selected from a list of English courses)
  
- C. **Mathematics - 6 semester credits**
  - Integrated Math 1 – 2 credits
  - Integrated Math 2– 2 credits
  - Integrated Math 3 – 2 credits
  
- D. **Science – 6 semester credits**
  - Life Science (Biology) – 2 credits
  - Physical Science (Physics) - 2 credits
  - Physical Science (Chemistry) - 2 credits
  
- E. **World Language - 4 semester credits**
  - 2 consecutive years of one world language
  - Spanish 1-2 - 2 credits
  - Spanish 3-4 - 2 credits
  
- F. **Visual and Performing Arts (VAPA) - 2 semester credits**
  - 1 year of the arts
  
- G. **Electives - 2 semester credits**
  
- PE **Physical Education- 4 semester credits.**

# 2019 - 2020 Serra Course Offerings

Students must be enrolled in physical education, JROTC, and/or PE Marching Band in grades 9 and any second year. 9th grade students must pass the Fitnessgram state exam or retake Physical Education the following year.



## Weighted and Specialized Courses

<b>ADVANCED</b>	<i>not weighted</i>	These are courses cover the same curriculum but provide additional rigor, increased pace, and high expectations for all students. However, these courses are not weighted through GPA. Students are encouraged to enroll in these courses provided strength and interest in the subject area.
<b>HONORS</b>	<i>weighted +1.0 for A,B, or C</i>	These courses have added demands of high expectations and accelerated coursework. These courses are weighted.
<b>ADVANCED PLACEMENT</b>	<i>weighted +1.0 for A,B, or C</i>	These courses are taught by Serra High teachers and are certified by the College Board and have weighted grades. Students who score a 4 or 5 on the AP Exam may qualify for college credit through their college or university.
<b>MIRAMAR COLLEGE COURSES</b>	<i>weighted +1.0 but received 2 credits</i>	These courses are on Serra High campus by Miramar College professors. Students will receive 2 credits per course, and grades are weighted.

## Valedictorian

The Valedictorian will be the one student with the highest overall weighted GPA (grades 10 - 12). If there is a tie, then Grade 9 will be considered. If the tie remains, students' work outside of the classroom (community service, club/sports participation, etc.) will be considered.

## College Admission

Although colleges use academic performance as part of admissions, GPA is not the sole determiner of college acceptance. Serra High School offers a spectrum of courses, from college-prep to advanced, honors, AP, and college courses. The Serra Pathways provide a sequence of courses, and all students are programmed to meet A - G requirements throughout their 4 year experience. Serra High School also offers an extensive list of electives, extracurricular programs, clubs, and activities.

# 2019 - 2020 Serra Course Offerings

## Serra High School Course List for UC/CSU Requirements

- A. **HISTORY** (*UC – 2 years, CSU – 1 year*)  
**AP Human Geography 1,2**  
World History 1, 2  
**AP World History 1, 2**  
US History 1, 2  
**Honors US History 1,2**  
**AP US History 1, 2**  
**AP Government 1, 2**  
Economics 1, 2
- B. **ENGLISH**  
*(4 years required)*  
English 1, 2 (Regular, Cluster, or Seminar)  
English 3, 4 (Regular, Cluster, or Seminar)  
American Literature 1, 2  
**Honors American Literature 1, 2**  
**AP English Language and Composition 1, 2**  
**AP English Literature and Composition 1, 2**  
English Literature (ERWC) 1, 2
- C. **MATHEMATICS**  
*(3 years required/4 recommended)*  
Integrated Math I A, B  
Adv Integrated Math I A,B  
Integrated Math II A,B  
Adv Integrated Math II A,B  
Integrated Math III A,B  
Adv Integrated Math III A,B  
Pre-Calculus 1, 2  
**Honors Pre-Calculus 1,2**  
Statistics 1, 2  
**AP Statistics 1, 2**  
**AP Calculus AB 1, 2**
- D. **LABORATORY SCIENCE**  
*(UC – 2 yrs. CSU – 1yr/3yr recommended)*  
Biology 1, 2  
Advanced Biology 1,2  
Physics 1, 2
- E. **WORLD LANGUAGE**  
*(2 years required, 3 recommended)*  
Spanish 1, 2, 3, 4, 5, 6, 7, 8  
**Spanish 7-8 Honors**  
**AP Spanish Language 1, 2 AP**
- F. **VISUAL AND PERFORMING ARTS**  
Art 1, 2  
Drawing and Painting 1, 2  
Marching Band 1-8 Honors 7-8 coming  
Choir 1, 2 3, 4  
Orchestra 1-8--Honors 7,8 coming  
Music Theory 1, 2  
Computerized Graphic Design 1-4  
Video Production 1, 2  
Multimedia Production 1-4  
Theatre 1, 2, 3, 4, 5, 6 7, 8  
Technical Theatre/Arts Mgmt 1-4  
Musical Theatre Workshop 1, 2  
Jazz Ensemble 1,2  
Design Mixed Media 1,2
- G. **ELECTIVES**  
Journalism 1, 2  
AVID 9-12  
ASB 9-12  
Yearbook 1, 2  
**AP Psychology 1, 2**  
Intro to Design 1,2  
Principles in Engineering 1,2  
Computer-Integrated Manufacturing 1-2  
Intro to BioMedical 1,2  
Human Body Systems 1,2  
Medical Interventions 1,2  
**AP Computer Science 1,2**  
NJROTC Core 1-8 NJROTC Elective 1-8
- H. **PHYSICAL EDUCATION (9-12)**  
*Is not included in A-G requirements but required for Diploma*

# 2019 - 2020 Serra Course Offerings

Adv. Physics 1, 2  
Chemistry 1, 2  
**Honors Chemistry 1,2**  
Physiology 1, 2  
**AP Biology 1, 2**  
**AP Physics 1-2**  
**AP Environmental Science 1-2**

**Note: Courses in bold receive weighted GPA credit**

## GENERAL REQUIREMENTS

In addition to the subject and course requirements described in the course offerings, the basic requirements outlined below must be met in order to receive a high school diploma:

## GRADE POINT AVERAGE (GPA)

A 2.0 GPA or higher is required for a diploma. Grade point average is computed on the basis of A = 4.0, B = 3.0, C = 2.0, D = 1.0 and F = 0. Advanced Placement (AP), Honors and Community College courses will be given a weighted GPA for high school graduation. (i.e. A = 5 points). A grade point average of 2.0 or higher is required for participation in co-curricular activities, including interscholastic athletics and the graduation ceremony.

## CONDUCT

A record of responsible citizenship must be maintained. In order to participate in graduation ceremonies, students must meet a minimum standard of a 2.0 average in citizenship during their senior year. Seniors will be denied participation in graduation exercises and other senior activities for zero-tolerance violations or activities resulting in a five-day suspension and or any issues listed on the senior contract.

## ATTENDANCE

All students must attend eight semesters, 2 per year, in grades 9 to 12 and six periods daily.

## CREDITS

Students must earn at least 44 credits semester credits in grades 9 to 12 (including a maximum of eight credits in physical education or NJROTC). Students must complete at least 44 credits to participate in graduation ceremonies.

# 2019 - 2020 Serra Course Offerings

## DIPLOMA OPTIONS

The Board of Education of San Diego Unified School District awards high school diplomas inscribed “With Academic Distinction” to students whose achievements have been outstanding. Requirements for this diploma should be studied and careful planning to meet them should begin while the student is in junior high school.

Only those students who have attended a district high school for their entire senior year are eligible for this diploma. Students, who have attended high schools in other districts, for all or part of grades 10 and 11, may qualify for this recognition if their academic performance in San Diego City Schools merits consideration. The high school principal is responsible for evaluating courses taken in out-of-district schools.

## DIPLOMAS AND CERTIFICATES

The district issues diplomas and certificates based on the following criteria:

- Diploma: Awarded to students who complete all general and course requirements with at least a 2.0 grade point average.
- Diploma with Academic Distinction: Awarded to students who complete all general requirements for a diploma with a weighted GAP of 3.5 or higher in grades 10, 11, and the first semester of grade 12, or to students who in grades 10 through 12 complete 14 semester credits in designated academically rigorous coursework specified in Administrative Procedure 4772. *Note: This procedure will be revised for the Class of 2016 and beyond.*
- Certificates of Completion are presented to non-diploma bound students receiving special education services who meet all the goals and objectives specified in their Individualized Education Programs (IEP). A Certificate of Completion is issued at the completion of the student’s prescribed educational program. Students receiving Certificates of Completion are eligible to participate in commencement ceremonies. See Administrative Procedure 4770.



# 2019 - 2020 Serra Course Offerings

## A. SOCIAL STUDIES

<b>AP HUMAN GEOGRAPHY 1, 2</b> <b>(9) 6511, 6512</b>	<b>Meets "A - G" requirement: A</b>
<p>This course introduces students to the systematic study of the patterns and processes that have shaped mankind's understanding, use, and alteration of the earth's surface. Students are introduced to the methods and tools used by geographers to analyze human social organization and its environmental consequences. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	
<b>MODERN WORLD HISTORY &amp; GEOGRAPHY 1, 2</b> <b>(10) 6605, 6606</b>	<b>Meets "A - G" requirement: A</b>
<p>In this course students examine the following strands: history, geography, economics, culture, and ethics. The course emphasizes national identity, constitutional heritage, and citizenship. It exercises varied study, visual, map/globe, and critical-thinking skills. World history from the late 1700s to the present is explored. The curriculum is designed to increase students' capacity to think analytically and critically.</p>	
<b>ADVANCED WORLD HISTORY 1, 2</b> <b>(10) 6645, 6646</b>	<b>Meets "A - G" requirement: A</b>
<p>This course provides an in-depth study of world history from the rise of democratic ideas to the contemporary world. Students develop advanced skills in analyzing historical, cultural, social, economic, and geographical issues in a global context. Students explore connections between local, national, and global issues. The course culminates with a critical examination of the problems of the modern world.</p>	
<b>AP WORLD HISTORY 1, 2</b> <b>(10) (6639, 6640)</b>	<b>Meets "A - G" requirement: A</b>
<p>World History Advanced Placement is a course that is broader and more rigorous than the World History 1, 2 Advanced course (6645, 6646). This course emphasizes cross-cultural and cross-period global processes and relationships over the traditional chronological approach so that students gain historical perspective on a global array of civilizations, not just Western ones. Students enrolled in this course will be prepared to take the AP World History examination. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	



# 2019 - 2020 Serra Course Offerings

<b>UNITED STATES HISTORY &amp; GEOGRAPHY 1, 2</b> <b>(11) 6701, 6702</b>	<b>Meets "A - G" requirement: A</b>
<p>In the course students examine major turning points in American history in the twentieth century. The course begins with a review of U.S. history with an emphasis on the nation's beginnings and the industrial transformation of the new nation. Students then study the Progressive Era, American participation in World War I and World War II, the Great Depression, and national issues in the post- World War II era. They will also examine elements of culture, including religion, literature, drama, art, music, education, and the role of media. This course emphasizes the relevance of history to students' daily lives and helps them understand how the ideas and events of the past shape the institutions and debates of contemporary America.</p>	

<b>UNITED STATES HISTORY &amp; GEOGRAPHY 1, 2 HONORS</b> <b>(11) 6711, 6712</b>	<b>Meets "A - G" requirement: A</b>
<p>This course is designed for the rigorous study of U.S. history and geography. The content includes a study of American history from the late nineteenth century to the present, with major emphasis on the development of American ideals and institutions. Students examine important issues and historical forces that have shaped the nation, including race, gender, politics, economics, foreign policy, culture, and the environment. Original documentary sources are used to supplement the text and enrich the student's experience. Research techniques are taught. All students must pass an end-of-course examination.</p>	

<b>AP UNITED STATES HISTORY 1, 2</b> <b>(11) 6721, 6722</b>	<b>Meets "A - G" requirement: A</b>
<p>The course provides challenging instruction for grade 11 students. It helps students develop critical judgments by encouraging them to read and analyze carefully chosen selections from both secondary and primary sources that explore the ideals, traditions, and institutions of the United States as well as the unity and diversity among American people. Emphasis is given to interpretations of major historical themes and evidence. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	

<b>GOVERNMENT 1</b> <b>(12) 6757</b>	<b>Meets "A - G" requirement: A</b>
<p>In Government 1 students apply knowledge gained in previous years of study to pursue a deeper understanding of the institutions of American government. This course focuses on the U.S. Constitution and Bill of Rights, the courts and governmental processes, the legislative and executive branches of government, state and local government, and comparative government. Government 1 is the culmination of the civic literacy strand that prepares students to vote, to reflect on the responsibilities of citizenship, and to participate in democratic activities and processes.</p>	

# 2019 - 2020 Serra Course Offerings

**PRINCIPLES OF ECONOMICS 1**  
**(12) 6758**

**Meets "A - G" requirement: A**

This one-semester course deepens students' understanding of the economic problems and institutions of the nation and the world. Students learn to make reasoned decisions on economic issues through the study of fundamental economic concepts, comparative economic systems, microeconomics, macroeconomics, and international economics.

**AP US GOVERNMENT AND POLITICS**  
**(12) 6839**

**Meets "A - G" requirement: A**

A one-semester course that provides more challenging instruction to students in grade 12 to enable them to meet the mandated requirement in American Government. The course includes an in-depth study of the nature of the American political system, its development over the last two hundred years, and how it works today. The course follows the standard syllabus of Advanced Placement American History as specified by the College Board; it prepares students to satisfactorily complete the Advanced Placement Examination in Government and Politics: United States and to earn college credit. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.

# 2019 - 2020 Serra Course Offerings

## B. ENGLISH LANGUAGE ARTS

<b>ENGLISH 1, 2</b> <b>(9) 1540, 1541</b>	<b>Meets "A - G" requirement: B</b>
<p>A survey of western literature, with a focus on different genres. Course content includes an introduction to novels, short stories, nonfiction, poetry, and drama. Emphasis is on the study of theme, plot, character, conflict, and stylistic devices. Activities concentrate on the fundamentals of written and oral language skills in conjunction with the study of literature.</p>	

<b>ENGLISH 1, 2 CLUSTER Advanced</b> <b>(9) 1540C, 1541C</b>	<b>Meets "A - G" requirement: B</b>
<p>Prerequisite Enrollment in 8th grade Cluster or Seminar English; earning a grade of "A" with teacher recommendation.</p> <p>A strong interest in reading is important. Literature selections are read from the Greco-Roman era to modern day, including novels, short stories, nonfiction, poetry, and drama. Emphasis is on literary analysis and preparation for future AP classes. Formal writing instruction is connected to the literature. Vocabulary focuses on SAT preparation. Creativity and an ability to draw inferences are helpful. Students study qualitatively and quantitatively more difficult materials and demonstrate superior insight in analysis and writing.</p>	

<b>ENGLISH 1, 2 SEMINAR</b> <b>(9) 1540S, 1540S</b>	<b>Meets "A - G" requirement: B</b>
<p>Prerequisite Participation in the GATE program - Seminar identified. Student must apply for admission to the program.</p> <p>Extensive reading and frequent formal and informal writing begins to prepare students for honors and advanced placement courses throughout high school. Literary study covers a variety of genres, including Greek and Roman mythology, the epic, novels, short stories, nonfiction, poetry, and drama.</p>	

<b>ENGLISH 3, 4</b> <b>(10) 1570, 1571</b>	<b>Meets "A - G" requirement: B</b>
<p>Focuses on language, composition, and reading skills. Course emphasizes the study of different themes through multicultural literature. The short story, poetry, nonfiction, Shakespeare, and novels will be examined.</p>	

# 2019 - 2020 Serra Course Offerings

<b>ENGLISH 3, 4 CL Advanced (10) 1572, 1573</b>	<b>Meets "A - G" requirement: B</b>
<i>Prerequisite A grade of "B" or better in English 1, 2 Cluster and teacher recommendation.</i>	
<p>Students will develop an understanding and appreciation of literature and will grow in their abilities to respond to literature based on their own experiences. The writing process will be emphasized by the use of essay, research, and documentation as well as through creative writing. Students will proceed and move through all steps in the writing process. The following items will be refined and reinforced in their writing: research, spelling, grammar, and mechanics. Descriptive, evaluative, persuasive and informative essays will be developed by the students and creative and analytical thinking will be stressed.</p>	

<b>AMERICAN LITERATURE 1, 2 (11) 1583, 1584</b>	<b>Meets "A - G" requirement: B</b>
<p>This course enables students to understand that American literature reflects social, political, and moral issues in the United States. Students develop proficiencies in vocabulary, reading, writing, speaking, and listening; in expressing their ideas about significant problems of American life; and in studying the communication techniques used by writers and national leaders in describing the American scene of both past and present. The course may examine the chronological development of American literature and thematic issues.</p>	

<b>HONORS AMERICAN LITERATURE 1, 2 (11) 1589, 1590</b>	<b>Meets "A - G" requirement: B</b>
<i>Prerequisite A grade of "B" or better in English 3, 4 Cluster and teacher recommendation.</i>	
<p>This course enables students to understand that American literature reflects social, political, and moral issues in the United States.</p> <p>The writing process will be emphasized by the use of essay, research, and documentation as well as through creative writing. Students will proceed and move through all steps in the writing process. The following items will be refined and reinforced in their writing: research, spelling, grammar, and mechanics. Descriptive, evaluative, persuasive and informative essays will be developed by the students and creative and analytical thinking will be stressed.</p>	

# 2019 - 2020 Serra Course Offerings

<b>AP ENGLISH LANGUAGE &amp; COMPOSITION 1, 2</b> <b>(11, 12) 1655, 1656</b>	<b>Meets "A - G" requirement: B</b>
<p>This course is conducted as a college class. This is a course in English language, providing a survey of the rhetorical modes used in nonfiction as well as fiction. This course focuses predominantly on American authors and has a strong emphasis in many different rhetorical modes of writing, such as: narrative, definition, description, compare and contrast, and argumentation. Additionally, students will be prepared for the Advanced Placement Exam via timed writing, sample tests, and instruction that is reflective of the challenging material found on the AP exam. Because this is a course in language and composition, there will be an emphasis on analyzing not only other authors' writing, but also analyzing students' own purpose and structure for writing. Students are expected to read, understand, and interpret past and present classical works of American literature, as well as improve their writing in response to the literature they read. During the year, students will read and respond to a number of novels, stories, lectures, editorials, and letters. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	

<b>AP ENGLISH LITERATURE AND COMPOSITION 1, 2</b> <b>(12) 1653, 1654</b>	<b>Meets "A - G" requirement: B</b>
<p>First semester is dedicated to the study of the short story, an anthology of short stories, poetry, and some informational articles will be emphasized. Some Internet research will be included. Second semester will consist entirely of AP exam practice until the date of the exam. Post test period will involve the study of nonfiction works. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	

<b>EXPOSITORY READING AND WRITING COURSE (ERWC)</b> <b>(12) 1698, 1699</b>	<b>Meets "A - G" requirement: B</b>
<p>Designed to prepare senior students for college level English. For students who plan to attend a CSU school, a grade of "C" or better indicates to the university that the student is "college ready" and exempt from the EPT or remedial English classes. The course is an in-depth study of expository, analytical, and argumentative reading and writing. The class is also designed to deepen students' critical thinking skills, and increase students' mastery of academic language.</p>	

# 2019 - 2020 Serra Course Offerings

## C. MATHEMATICS

<b>INTEGRATED MATH I A-B</b> <b>(9) 4157, 4158</b>	<b>Meets "A - G" requirement: C</b>
<p>Integrated Math I is the first of three high school–level courses that integrate algebra, geometry, trigonometry, and statistics under the Common Core State Standards. This course formalizes and extends the mathematics that students learned in middle school. This course includes much of the content of an Algebra I course as well as Geometry and Statistics.</p>	

<b>ADVANCED INTEGRATED MATH I A-B</b> <b>(9) 4165, 4166</b>	<b>Meets "A-G" requirement: C</b>
<p><i>Prerequisite: Completion of Accelerated Math 7 with a grade of B or better.</i></p> <p>Integrated Math I Advanced is the first course in the accelerated pathway to calculus. The course is designed for advanced grade 8 students. It includes the content of the standard Integrated Math I course (Integrated Math I A-B) plus an additional two units that will provide opportunities for students to begin working with the advanced + Common Core State Standards.</p>	

<b>INTEGRATED MATH II A-B</b> <b>(10) 4159, 4160</b>	<b>Meets "A - G" requirement: C</b>
<p>Integrated Math II is the second of three high school–level courses that integrate algebra, geometry, trigonometry, and statistics under the Common Core State Standards. This course focuses on quadratic expressions, equations, and functions while comparing their characteristics and behavior to those of linear and exponential relationships as encountered in Integrated Math I A-B.</p>	

<b>ADVANCED INTEGRATED MATH II A-B</b> <b>(10) 4167, 4168</b>	<b>Meets "A - G" requirement: C</b>
<p><i>Prerequisite: Completion of Integrated Math I A-B Advanced with a grade of B or better</i></p> <p>Integrated Math II Advanced is the second course in the accelerated pathway to calculus. The course integrates the Common Core State Standards as outlined in the mathematics framework with additional higher-level standards. The intent of the course is to prepare students for Integrated Math III Advanced. Students will be exposed to the content of the standard Integrated Math II course (Integrated Math II A-B) with the expectation that they will explore that content more deeply, including studying and analyzing conic sections and vectors and their relationships to complex numbers.</p>	

# 2019 - 2020 Serra Course Offerings

<b>INTEGRATED III A-B</b> <b>(10 – 12) 4163, 4164</b>	<b>Meets “A - G” requirement: C</b>
<p>This is a college prep course in which students will receive instruction of linear, quadratic, exponential, logarithmic, polynomial, and rational functions as well as systems of equations in two and three dimensions, conic sections, sequences, combinatory and probability as defined by the California State Standards for Algebra 2. Students earning a grade of "C" or better meet the minimum math requirements for acceptance to a four-year college. This course meets the third year math requirements for high school graduation as well as the UC/CSU “C” requirement for college prep.</p>	

<b>ADVANCED INTEGRATED III A-B</b> <b>(10-12) 4169, 4170</b>	<b>Meets “A - G” requirement: C</b>
<p><i>Prerequisite: Completion of Integrated Math II with a grade of B or better.</i></p> <p>This is a rigorous college prep course to learn in depth algebraic concepts of linear, quadratic, exponential, logarithmic, polynomial, and rational functions as well as systems of equations in two and three dimensions, conic sections, sequences, combinatory and probability as defined by the California State Standards for Algebra 2. This course meets the third year math requirements for high school graduation as well as the UC/CSU “C” requirement for college prep.</p>	

<b>PRECALCULUS 1, 2</b> <b>(12) 4161, 4162</b>	<b>Meets “A - G” requirement: C</b>
<p><i>Prerequisite: Successful Completion of Integrated Math III.</i></p> <p>Precalculus is an advanced college preparatory course consisting of math analysis and trigonometry. The first semester will emphasize the study of functions and their transformations: linear, quadratic, rational, exponential, and logarithmic. Also covered, will be the study of systems, sequences and probability. The second semester will cover trigonometric functions followed by the study of matrices and determinants, and conics. This course meets the fourth year UC/CSU “C” mathrequirement for college prep.</p>	

<b>HONORS PRECALCULUS 1, 2</b> <b>(11-12) 4181, 4182</b>	<b>Meets “A - G” requirement: C</b>
<p><i>Prerequisites: A B grade or better in Integrated Math III; recommendation of teacher and/or counselor.</i></p> <p>For students who have demonstrated excellent ability and motivation in all previous advanced math courses. This in-depth course in algebra includes a strong treatment of trigonometry, algebraic functions and limits. Students who take this course will take a qualifying exam for Math 150 in the spring and successful completion prepares students for the first course of college Calculus.</p>	

# 2019 - 2020 Serra Course Offerings

<b>STATISTICS</b> <b>(12) 4046, 4047</b>	<b>Meets "A - G" requirement: C</b>
<p><b>Prerequisites: Satisfactory completion of three years of integrated mathematics</b></p> <p>This is an introductory course addressing all eight of the California Mathematics Content Standards for Probability and Statistics and 10 of the 19 standards for Advanced Placement Probability and Statistics. Students in this course will explore and represent data graphically, interpret data, design studies and use inference to determine statistical significance. This course meets the fourth year UC/CSU "C" math requirement for college prep.</p>	

<b>AP STATISTICS 1-2</b> <b>(12) 4055, 4056</b>	<b>Meets "A - G" requirement: C</b>
<p><i>Prerequisite: Satisfactory achievement in three previous, sequential years of math courses, and/or recommendation of the teacher and/or counselor.</i></p> <p>In this non-calculus, college-level introductory course, students study descriptive and inferential statistics and take the Advanced Placement examination at the end of the year. The course provides students with the opportunity to continue their study of mathematics in an area other than calculus; it provides students who have completed calculus in their grade 11 year with an appropriate mathematics course for the grade 12 year. The course also provides students who will study the social sciences and humanities with a foundation course in statistics, which is required in almost every university and college.</p>	

<b>AP CALCULUS 1, 2 AB</b> <b>(12) 4189, 4190</b>	<b>Meets "A - G" requirement: C</b>
<p><i>Prerequisites: Pre-calculus 1-2 Honors or equivalent course; recommendation of teacher and/or counselor</i></p> <p>This course follows the standard syllabus of Advanced Placement Calculus AB as stated in The College Board's most recent Advanced Placement Course Description: Calculus. It provides students the opportunity to sit for an advanced placement examination and earn college credit if they obtain a score of 3, 4, or 5 on the exam. A T1-83 or better is needed (TI-89 is recommended). While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	



# 2019 - 2020 Serra Course Offerings

## D. SCIENCE

<b>BIOLOGY 1, 2</b> <b>(9) 6111, 6112</b>	<b>Meets "A - G" requirement: D</b>
<p>This introductory course is designed to build on physical science concepts, and emphasize mechanisms for the functioning and continuity of organisms. Unifying themes of biology are stressed (evolution, homeostasis, energy, matter and organization, continuity, development, and ecology) and the application and relevance of biology to students' lives and to society. Inquiry and the nature of science are important content elements.</p>	
<b>ADVANCED BIOLOGY 1, 2 CLUSTER</b> <b>(9) 6121, 6122</b>	<b>Meets "A - G" requirement: D</b>
<p>This is a first year course intended for students with the interest and ability to extend their study of biology beyond the basic course, and/or who are contemplating a science-related career but are not prepared to take Advanced Placement Biology as their first biology course. It covers all the elements of the regular course, including the same inquiry and cooperative strategies, but the pace will be faster, and it will go into greater depth in selected areas. It builds extensively on concepts learned in physics and chemistry and is more quantitative. It addresses state science standards.</p>	
<b>CHEMISTRY 1-2</b> <b>(11) 6211, 6212</b>	<b>Meets "A - G" requirement: D</b>
<p>This course covers the state chemistry standards at a basic level. Students will be introduced to each of the 11 content areas outlined in the state standards through laboratory explorations, modeling, reading, and discussions. Students will be guided through critical thought processes and will use these skills to solve problems.</p>	
<b>HONORS CHEMISTRY 1-2</b> <b>(11) 6221, 6222</b>	<b>Meets "A - G" requirement: D</b>
<p><i>Prerequisite: Above-average achievement in previous science course(s) and in Integrated Math I A-B or equivalent; Physics 1,2 and Chemistry 1,2 recommended; concurrent enrollment in Integrated Math II A-B or equivalent recommended; a desire to succeed in a rigorous college-level course environment.</i></p> <p>Through laboratory and independent problem-solving activities, teacher demonstrations, lectures and discussions, text and supplementary readings, and homework experiences, students who have demonstrated considerable interest and outstanding achievement in science will explore how chemists attempt to solve problems and how the chemical aspects of their environment interact and can be controlled to benefit their daily lives. All student activities have clearly defined goals for both the content material covered and the thinking (process) skills involved. Laboratory activities are to have clearly labeled safely precautions and hazardous waste disposal procedures. This course is intended to help students meet state science standards.</p>	

# 2019 - 2020 Serra Course Offerings

<b>GREEN UP PHYSICS 1, 2</b> <b>(10) 6240, 6241</b>	<b>Meets "A - G" requirement: D</b>
<p>Based on the California standards for high school physics. Topics include Motion and Forces, Momentum and Energy, Heat and Thermodynamics, Waves and Optics, and Electromagnetism. Provides a real world opportunity for students to discover and understand principles of physics, engineering, design and clean green technologies. Very hands-on. Test taking strategies are also incorporated throughout the year with the goal of a proficiency score on the California Standards Test.</p>	

<b>ADVANCED PHYSICS 1, 2 (10) 6321, 6322</b>	<b>Meets "A - G" requirement: D</b>
<p>Prerequisites: A or B from Adv. Integrated II</p> <p>Based on the California standards for high school physics. Topics include Motion and Forces, Momentum and Energy, Heat and Thermodynamics, Waves and Optics, and Electromagnetism. A significant amount of reading and problem solving using supplemental texts will be used. Interpretation of experimental results and problem-solving skills are stressed with the goal of preparing students for the SAT II Achievement Test in Physics.</p>	

<b>PHYSIOLOGY 1, 2</b> <b>(12) 6151, 6152</b>	<b>Meets "A - G" requirement: D</b>
<p>The body systems of humans and animals are used as examples of systems necessary for the growth and maintenance of life. These systems are studied in terms of their general structures and functions in living things. Emphasis is placed on the evolutionary sequence of particular organs, tissues and functions so the student can grasp the concept of homology and the evidence by which scientists unite organisms into evolutionary groups. The biochemical functions of human systems are covered. Laboratory experience involves cat dissection.</p>	

<b>AP BIOLOGY 1, 2</b> <b>(12) 6191, 6192</b>	<b>Meets "A - G" requirement: D</b>
<p>Prerequisites: Chemistry 1,2 and Biology 1,2 or equivalents; the commitment to succeed in rigorous AP content. Some students with high achievement in Chemistry 1,2 may qualify to take this as their first course in biology.</p> <p>In this course students engage in learning activities equivalent to those of a freshman biology course at the university level. Students successful in this course attain a depth of understanding of fundamental biological concepts and are able to demonstrate that understanding, orally and in writing, with clarity and logic. The application and relevance of biology to students' lives and to society are stressed, and inquiry and the nature of science are important content elements. Materials used for this course differ qualitatively from those used in other biology courses in both rigor and content, and in the complexity of laboratory experiences. Laboratory activities have clearly labeled safety precautions and hazardous waste disposal procedures. The students' learning activities are intended to prepare them to succeed in the Advanced Placement Examination in Biology. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	

# 2019 - 2020 Serra Course Offerings

<b>AP ENVIRONMENTAL SCIENCE</b> <b>(12) 6455, 6456</b>	<b>Meets "A - G" requirement: D</b>
Prerequisite: Biology 1, 2 and Chemistry 1, 2,	
This course provides students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems, to evaluate the relative risks associated with these problems, and to examine solutions for resolving or preventing them. Students completing this course with a grade of A or B are eligible to earn community college credits. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.	

<b>AP PHYSICS I A,B</b> <b>(12) 6349, 6350</b>	<b>Meets "A - G" requirement: D</b>
Prerequisites Integrated Math I (4157, 4158) and Integrated Math II (4159, 4160); concurrent enrollment in Integrated Math III (4163, 4164); no prior coursework in physics is required	
AP Physics I is the equivalent of an introductory, algebra-based college physics course. It replaces AP Physics B (6391, 6392), which the College Board has terminated. This course provides teachers with time to foster deep conceptual understanding through student-centered, inquiry-based instruction. Twenty-five percent of instructional time is spend in laboratory work. The course explores such topics as Newtonian mechanics; work; energy and power; mechanical waves and sound; and introductory simple circuits.	

# 2019 - 2020 Serra Course Offerings

## E. WORLD LANGUAGES

<b>SPANISH 1,2</b> <b>(9-11) 2321, 2322</b>	<b>Meets "A - G" requirement: E</b>
<p>Spanish 1, 2 is an introductory course for the novice learner who has little or no prior experience with the language. Students will develop basic skills in listening, comprehension, speaking, reading and writing as well as develop an appreciation for the culture.</p>	
<b>SPANISH 3,4</b> <b>(9-12) 2323, 2324</b>	<b>Meets "A - G" requirement: E</b>
<p>A continuation of Spanish 1, 2, which introduces more complex structures and a wider range of vocabulary, including an introduction to Spanish terms used in the local job market to communicate with Spanish-speaking customers.</p>	
<b>SPANISH 5, 6</b> <b>(9-12) 2325, 2326</b>	<b>Meets "A - G" requirement: E</b>
<p>Prerequisites A grade of "C" or better in Spanish 3, 4 and/or teacher recommendation. Students continue to improve their speaking. Listening, reading, and writing skills by listening to native speakers, various media presentations, and class discussions. Text includes more advanced structure and literature that will further students' understanding of Spanish-speaking cultures.</p>	
<b>HONORS SPANISH 7, 8</b> <b>(9-12) 2307, 2308</b>	<b>Meets "A - G" requirement: E</b>
<p><i>Prerequisites A grade of "B" or better in Spanish 5, 6 and/or teacher recommendation.</i>  This course is intended to increase students' proficiency in the four major language skills. Students will speak about everyday situations, current events, leisure, and cultural contents; read articles from periodicals, short literary works, essays, and songs; write letters, summaries, articles, short stories and songs; and understand information from discussions, questions, and in-depth materials relating to shared interests. Great emphasis is placed on Spanish and Latin American music, cinema, and art.</p>	
<b>AP SPANISH LANGUAGE 1, 2</b> <b>(11-12) 2333, 2334</b>	<b>Meets "A - G" requirement: E</b>
<p><i>Prerequisite Three consecutive years of Spanish with a grade of "C" or better.</i>  This course is designed for students who wish to pursue the equivalent of a third-year, college-level Spanish course. Students will work intensively on improving the four major skills: listening, reading, speaking, and writing. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.</p>	

# 2019 - 2020 Serra Course Offerings

## F. VAPA

<b>ART 1,2</b> <b>(9-12) 0191, 0192</b>	<b>Meets "A - G" requirement: F</b>
<p>This course serves as a basis for general visual art education, providing a foundation for advanced art courses. It integrates production, aesthetics, criticism, and art history through the exploration of visual art elements and principles.</p>	

<b>DESIGN IN MIXED MEDIA 1, 2</b> <b>0244, 0245</b>	<b>Meets "A - G" requirement: F</b>
<p>This course introduces students to the elements and principles of design that are part of the common core of knowledge and foundation for understanding and creating fine art. The course provides students with practical experience in production of two and three-dimensional design art work in various media, including clay, fiber, papier mache, printmaking, etc.</p>	

<b>Drawing &amp; Painting 1 &amp; 2</b> <b>(9-12) 0271, 0272</b>	<b>Meets "A - G" requirement: F</b>
<p>Explore a variety of techniques and materials like watercolor, tempera, acrylic, and oil paints, to reveal your unique style of drawing and painting. Practice will improve all levels of skill so this is a great beginning class and gives the same credit as Art 1, 2.</p>	

<b>MARCHING BAND UNIT (9-12) 5843</b> <b>BAND 1,2,3,4,5,6,7,8 (9-12) 5021, 5023</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite Teacher recommendation; instrument played will determine class period/section.</i></p> <p>Meets "A-G" requirement: none meets diploma requirement or f credit if 0 period PE or taken for 2 years already  A fall semester course that includes physical fitness activities and instruction in performing marching activities. Any student desiring to be in the Marching Band must take this course in the fall. Weekend performances and rehearsals outside of normal school hours are part of the course and will be graded.</p>	

<b>ORCHESTRA (SENIOR HIGH) 1, 2, 3, 4 (9-12) (STRING ORCHESTRA) 5335, 5336, 5337, 5338</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisites: Teacher recommendation.</i></p> <p>A two-semester course designed to provide instruction in string ensemble and full orchestral techniques and literature.  Extracurricular rehearsals and performances are considered part of the course and are graded.</p>	

# 2019 - 2020 Serra Course Offerings

<b>JAZZ ENSEMBLE 1, 2</b> <b>5330 5331</b>	<b>Meets "A-G" requirement: F</b>
<p>This course teaches the musical concepts and technique of performing jazz at a beginning level. In this course, students will learn how to produce controlled and accurate pitch and create a mature jazz tone, as well as learn the basics of music notation and musical vocabulary. Student will be exposed to the major scale and diverse repertoire and will be asked to think deeply about the discipline of music from a number of perspectives, including style, genre, mood, and historical and cultural context. Additional topics of study include demonstrating appropriate performance etiquette, identifying musical contrasts, evaluating performances, and creating new music through compositions and improvisations.</p>	
<b>MUSIC THEORY 1, 2</b> <b>5371, 5372</b>	<b>Meets "A-G" requirement: F</b>
<p>This course is for students who are interested in advanced music studies. Students will use and identify standard vocabulary and language of music and rhythm, harmony and musical structure.</p>	
<b>CHOIR 1, 2</b> <b>(5050, 5051)</b>	<b>Meets "A - G" requirement: F</b>
<p>This standards based course provides instruction in the basic principles of musicianship and promotes familiarity with standard choral literature. Choir may be made up of mixed voice or separate groups selected on the basis of voice quality or range. This course is designed for students with no previous choral experience.</p>	
<b>TECHNICAL THEATRE 1, 2</b> <b>(9-12) 1413, 1414</b>	<b>Meets "A - G" requirement: F</b>
<p>Quiet on the set! This class is designed for the student interested in "technical theater" who desires special instruction and hands-on training in scenic and lighting design, set construction, sound, costumes, and stage management. You will work on all main stage productions. Note: Participation in extracurricular/after school theatre productions is required as part of the course curriculum.</p>	
<b>TECHNICAL THEATRE 3, 4</b> <b>(9-12) 1462, 1463</b>	<b>Meets "A - G" requirement: F</b>
<p>Prerequisites: Successful completion of Technical Theater 1, 2 (1413, 1414) with a grade of B or better. Students also must pass a district-required safety test. Note: Participation in extracurricular theater productions is required as part of the course curriculum. This course continues instruction begun in Technical Theatre 1, 2 and forms part of a sequential course of study in technical theater and production. Students who take this course will develop their own designs for school productions and execute them for performance. They will create designs for the sets, lighting, costumes, and sound of these productions—including sketches, ground plans, renderings, color charts/swatches, and models—and work with other designers and the director to develop a unified design scheme for each one. Students also will serve as crew chiefs during construction, supervising the work of Technical Theatre 1, 2 students.</p>	

# 2019 - 2020 Serra Course Offerings

Stage-management responsibilities with full prompt books also will be required for all productions. Note: Participation in extracurricular/after school theatre productions is required as part of the course curriculum.

**THEATRE 1, 2**  
**(9-12) 1423, 1424**

**Meets "A - G" requirement: F**

Act up and get away with it! Enthusiastically unleash your imagination through the art of acting. In this encouraging environment, the new drama student will develop fundamental acting skills through a variety of creative and exciting workshops, improvisations, Reader's Theater, and scene work. Students will also be introduced to the basics of technical theatre. Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.

**THEATRE 3, 4**  
**(10-12) 1425, 1426**

**Meets "A - G" requirement: G**

*Prerequisite Drama 1, 2 with a grade of "C" or better or teacher recommendation.*

Let's have more fun! A continuation of Drama 1, 2 with much more emphasis on character study and development. Also learn important techniques that will prepare you to audition for stage, commercial, and film opportunities. Develop your skills as a director through script and scene study. Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.

**THEATRE 5, 6**  
**(11-12) 1427, 1428**

**Meets "A - G" requirement: F**

*Prerequisite: Teacher recommendation.*

Use it! Explore college theater programs and other career opportunities in the drama field. Advance your skills in directing concepts, acting skills, and play production. Participate in class and school productions.

Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.

**THEATRE 7, 8**  
**(11-12) 1429, 1430**

**Meets "A - G" requirement: F**

*Prerequisite Teacher recommendation.*

**THEATRE: THE MUSICAL 1,2**  
**1411, 1412**

**Meets "A - G" requirement: F**

*Prerequisite An audition with a prepared song; ability to carry a melody.*

# 2019 - 2020 Serra Course Offerings

This two-semester course provides a guided workshop in which students can practice and polish their musical-theatre audition and performance skills. It requires students to be self-disciplined and able to set and reach individual goals to make the best use of available resources. Students are required to give individual and ensemble performances on a regular basis, and are expected to do homework outside of class, including research, report writing, and practice. This course includes the study of the musical theatre form, history and styles, as well as major figures in musical theatre. Instruction comes from a combination of departments, including theatre, music, and dance.

**THEATRE: THE MUSICAL 3,4**  
**1453, 1454**

**Meets "A - G" requirement: F**

*Prerequisite Theatre: Theatre: Musical 1,2*

This course provides students with a second year of study in musical theatre. Topics include audition techniques, musical theatre history, performance preparation and presentation, and show selection and design. Students who take this course will participate in individual and ensemble performances on a regular basis.



# 2019 - 2020 Serra Course Offerings

## G. ELECTIVES

<b>JOURNALISM 1, 2</b> <b>(10-12) 1960, 1961</b>	<b>Meets "A-G" requirement: G</b>
Students are introduced to the basic techniques and skills of journalistic writing and prepares them to contribute to school publications. Students also explore the meaning of freedom of the press and how other freedoms depend on an informed citizenry.	
<b>AVID: Advancement Via Individual Determination</b> <b>(9-12) 8207/8208, 8209/8210, 8227/8228, 8221/8222</b>	<b>Meets "A-G" requirement: G</b>
AVID is a grade 9-12 program to prepare students in the academic middle for four-year college eligibility. AVID targets students in the academic middle - B, C students - who have the desire to go to college and the willingness to work hard. Typically, they will be the first in their families to attend college, and many are from low-income or minority families. For one period a day, students learn organizational and study skills, work on critical thinking and asking probing questions, get academic help from peers and college tutors, and participate in enrichment and motivational activities that make college more attainable.	
<b>ASB/MARKETING</b> <b>(9-12) 0801/0802, 0803/0804</b>	<b>Meets "A-G" requirement: G</b>
This course provides entry level training in event planning. sales and marketing, employment possibilities include event planner, meeting manager, wedding consultant, and certified trade show marketer. Selling, promotion, budget and finance, negotiations and contracts, room set-up, food and beverages etc.	
<b>YEARBOOK 1, 2</b> <b>8277, 8278</b>	<b>Meets "A - G" requirement: G</b>
This course provides individual specialized training and production work in publishing the school yearbook.	
<b>AP PSYCHOLOGY 1, 2</b> <b>(10-12) 6834, 6835</b>	<b>Meets "A - G" requirement: G</b>
Students are introduced to the systematic and scientific study of the behavior, thoughts, and emotions of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the five major subfields within psychology. This is a year-long course that culminates with the AP exam. While students do not need to take the AP exam to earn a weighted grade (for an A, B, or C), they must take the exam to earn college credit.	

# 2019 - 2020 Serra Course Offerings

<b>EDGENUITY/CREDIT RECOVERY 8010</b>	<b>Meets "A - G" requirement: <i>varies</i></b>
<p>Prerequisite Entrance to the CRP is determined by the counselor and/or a MMHS administrator. Some considerations include: One or more years behind age group in number of credits attained; Failing 1+ classes; Has been retained two or more years; Exhibits excessive absenteeism; Achieves less than a 2.0 GPA; Is in a grade that is age-inappropriate (i.e. is seventeen in the ninth grade); Has difficulty performing in the traditional classroom; and Students who are at risk of dropping out, or a returning dropout</p> <p>The Credit Recovery Program is a standards-based digital curriculum designed to provide extensive support for students in credit recovery in math, science, social science, English and select elective classes. Lessons provide differentiated instruction to enable all students find academic success.</p>	

# 2019 - 2020 Serra Course Offerings

## PHYSICAL EDUCATION

<b>PHYSICAL EDUCATION</b> <b>(9-12) 5503, 5504 / 5701, 5702 / 5703,5704 / 5705, 5706</b>	
<p>Note: All 9th grade students must enroll in Physical Education. All 9th grade students must also pass the FITNESSGRAM or re-enroll in Physical Education each year until the FITNESSGRAM is passed.</p> <p>Soccer/FB/BB/VB/HB/SB/Bad/Ten. A full year course introducing skills, basic game rules, and strategies in a wide variety of team and individual sports. Physical fitness activities are emphasized, along with the wide exposure to other sports.</p>	
<b>PHYSICAL EDUCATION - INTERSCHOLASTIC ATHLETICS</b> <b>(9-12) 5712.2</b>	
<p>Prerequisite 2.0 GPA in scholarship and citizenship and approval of coach.</p> <p>Opportunities in interscholastic competition at varsity and junior varsity levels, grade 9 girls volleyball, and grade 9 football.</p>	
<b>FALL SPORTS</b>	<b>(Sept.-Nov.)</b>
<p>Boys/girls cross country, girls field hockey, football, girls tennis, girls volleyball, boys water polo, girls golf.</p>	
<b>WINTER SPORTS</b>	<b>(Nov.-Feb.)</b>
<p>Boys/girls basketball, boys/girls soccer, wrestling, girls water polo.</p>	
<b>SPRING SPORTS</b>	<b>(Feb.-June)</b>
<p>Coed badminton, baseball, boys golf, lacrosse, softball, boys/girls swimming/diving, boys tennis, boys volleyball, boys/girls track and field.</p>	
<b>PHYSICAL EDUCATION - WEIGHT TRAINING</b> <b>(11-12)</b>	
<p>Students will establish a set of personal fitness goals and create a personal strength-training and conditioning program that fits the individual. Techniques such as Olympic lifting, proper spotting, Kettlebells, core strength movements, and cardiovascular exercises will be used to improve physical strength and fitness. Social interaction such as group dynamics, setting personal goals, and the study of healthy lifestyle goals will encourage students to improve themselves both mentally and physically.</p>	

# 2019 - 2020 Serra Course Offerings

<b>PE MARCHING BAND UNIT</b> <b>(9-12) 5843</b>	
--	--

*Prerequisite Teacher recommendation; instrument played will determine class period/section.*  
*Grade 9 students have a zero period P.E. class*

A fall semester course that includes physical fitness activities and instruction in performing marching activities. Any student desiring to be in the Marching Band must take this course in the fall. Weekend performances and rehearsals outside of normal school hours are part of the course and will be graded.

<b>DRILL TEAM: PHYSICAL EDUCATION – Color Guard</b> <b>(9-12) 5842.2</b>	
---	--

*Prerequisite: Teacher recommendation.*

Co-ed, year-long course. Physical fitness activities and instruction in performing routines (flags in front of band).

# 2019 - 2020 Serra Course Offerings

## Navy Junior Reserve Officers Training Corps

### NJROTC

The mission of the Navy Junior Reserve Officer Training Corps (NJROTC) program is to develop citizens of character dedicated to serving their nation and community. The objectives of NJROTC are to educate and train high school cadets in citizenship; promote community service, instill responsibility, character, and self-discipline; and provide instruction in air and land fundamentals. The NJROTC program is grounded in the Navy core values of honor, courage, commitment in all we do. There are three parts of the program: navy science, leadership education, and wellness. Extra-curricular activities include: field trips, community service, drill teams, special teams (academics, physical fitness, cyber security, and awareness presentation team), and color guard. A uniform is provided free and must be worn once a week. The goal of the course is to help the student succeed at Serra High School and pursue higher education.

<b>NAVAL JROTC CORE 1,2</b> <b>4521, 4522</b> <b>NAVAL JROTC ELECTIVE 1,2</b> <b>4581, 4582</b>	<b>Meets "A - G" requirement: G</b>
<p>Naval Science 1. This is the first in a series of four NJROTC courses. It may be taken in grades 9, 10, 11, or 12.</p> <p>This course includes a physical education component. Students participate in moderate to vigorous physical activity; apply the principles of exercise to challenging physical activities; identify and achieve levels of excellence in physical fitness beyond the state fitness standards. They meet or exceed high school physical education content standards 1–3. Students receive instruction in the following eight content areas: (1) effects of physical activity upon dynamic health; (2) mechanics of body movement; (3) aquatics; (4) gymnastics and tumbling; (5) individual and dual sports; (6) rhythms and dance; (7) team sports; and (8) combatives/self-defense.</p> <p>Students will be evaluated in each of the following subject areas: Introduction to the NJROTC course, Leadership/Followership, Citizenship, Foundations of our government, Navy ships Naval Aviation, NJROTC uniform program, NJROTC rates/ranks; U.S. Navy rates/ranks, Military customs, courtesies, etiquette, and ceremonies, Introduction to military drill, Health and physical education, First aid, and Orienteering.</p>	

<b>NAVAL JROTC CORE 3,4</b> <b>4523, 4524</b> <b>NAVAL JROTC ELECTIVE 3,4</b> <b>4583, 4584</b>	<b>Meets "A - G" requirement: G</b>
<p><i>Prerequisites: Naval JROTC Core 1,2</i></p> <p>Naval Science 2. This is the second in a series of four NJROTC courses. It may be taken in grades 10, 11, or 12.</p>	

# 2019 - 2020 Serra Course Offerings

This course includes a physical education component. Students participate in moderate to vigorous physical activity; apply the principles of exercise to challenging physical activities; identify and achieve levels of excellence in physical fitness beyond the state fitness standards. They meet or exceed high school physical education content standards 1–3. Students receive instruction in the following eight content areas: (1) effects of physical activity upon dynamic health; (2) mechanics of body movement; (3) aquatics; (4) gymnastics and tumbling; (5) individual and dual sports; (6) rhythms and dance; (7) team sports; and (8) combatives/self-defense.

While still instructed in core areas such as leadership, physical education, and wellness, these students will also be evaluated in each of the following subject areas:

Maritime History, Sea power and early Western civilization, The American Revolution, 1775–1783, The growth of American sea power, 1783– 1860, The Civil War, 1861–1865, The rise to world power status, 1865–1914, World War I, 1914–1918, The interwar years, 1918–1941; World War II: The Atlantic War, 1941–1945; World War II: The Pacific War, 1941–1945; The Cold War era, 1945–1991; The 1990s and beyond; Nautical Sciences; Maritime Geography; Oceanography; Meteorology; Astronomy; Physical Sciences.

**NAVAL JROTC CORE 5,6  
4525, 4526**

**Meets “A - G” requirement: G**

*Prerequisites: Naval JROTC Core 3,4.*

Naval Science 3. This is the third in a series of four NJROTC courses. It may be taken in grades 11 or 12.

This course includes a physical education component. Students will meet or exceed the standards on the state-mandated fitness test; participate in individual/dual activities to improve or maintain health; analyze the effects on personal fitness and personal levels of health-related fitness; improve or maintain physical fitness; explain the relationship between participation and health; demonstrate the ability to effectively purchase products and programs for individuals; develop and implement a one-month personal fitness plan.

While still instructed in core areas such as leadership, physical education, and wellness, these students will also be evaluated in each of the following subject areas:

Naval Knowledge: Sea power and national security, U.S. Merchant Marine, Naval operations, communications, and intelligence, Naval logistics, Naval research and development, Military law, and International law

Naval Skills: Ship construction and damage control, Shipboard organization and watch-standing, Seamanship, Nautical rules of the road, Navigation and time, The Maneuvering Board, Naval gunnery, Naval aircraft and missiles, and Public Speaking/Effective Communications.

**NAVAL JROTC CORE 7,8  
4527, 4528  
NAVAL JROTC ELECTIVE 7,8**

**Meets “A - G” requirement: G**

# 2019 - 2020 Serra Course Offerings

4587, 4588	
------------	--

*Prerequisites: Naval JROTC Core 5,6*

Naval Science 4. This is the fourth in a series of four NJROTC courses. It may be taken in grade 12.

This course includes a physical education component. Students will meet or exceed the standards on the state-mandated fitness test; participate in individual/dual activities to improve or maintain health; analyze the effects on personal fitness and personal levels of health-related fitness; improve or maintain physical fitness; explain the relationship between participation and health; demonstrate the ability to effectively purchase products and programs for individuals; develop and implement a one-month personal fitness plan.

While still instructed in core areas such as leadership, physical education, and wellness, these students will also be evaluated in each of the following subject areas: Career planning and education, Naval leadership, training, and evaluation, Responsibilities and qualities of leadership, Achieving effective communications, Unit management and leadership, and Professional research.

# 2019 - 2020 Serra Course Offerings



## Pathways

## 2019 - 2020



**Digital Communication & Technology: Graphic Design**

1. Photography 1,2
2. Computerized Graphic Design 1,2
3. Computerized Graphic Design 3,4



**Digital Communication & Technology: Video**

1. Video Production 1,2
2. Multimedia Production 1,2
3. Multimedia Production 3,4



**Project Lead the Way: Biomedical**

1. Principles of Biomedical
2. Human Body Systems
3. Medical Interventions



**Project Lead the Way: Engineering**

1. Introduction to Design
2. Principles of Engineering
3. Computer-Integrated Manufacturing



**Visual & Performing Arts: Music**

- Choir
- Orchestra
- Marching Band



**Visual & Performing Arts: Theater**

- Theater
- Tech Theater
- Musical Theater



# 2019 - 2020 Serra Course Offerings

## ARTS, MEDIA AND ENTERTAINMENT/DIGITAL TECHNOLOGY

### GRAPHIC DESIGN PATHWAY

<b>PHOTOGRAPHY 1,2 (9) 3691, 3692</b>	<b>Meets "A - G" requirement: F</b>
<p>Students acquire the ability to complete all of the processes involved in taking various kinds of photographs and producing finished prints. Understanding of the principles of good composition and of the application of photographic principles to industrial processes is stressed. This course uses advances in photographic technology to produce and to display digital photos. Students develop interests and abilities in photography to the point that they have a good foundation for an avocation. Consideration is given to the career opportunities photography opens. This course reinforces core academic content area and California Career Technical Education model curriculum standards in relevant, applied setting, appropriate to the subject and grade level. This course is part of the Design, Visual, and Media Arts pathway.</p>	
<b>COMPUTERIZED GRAPHIC DESIGN 1, 2 (11-12) 8511, 8512</b>	<b>Meets "A-G" requirement : F</b>
<p>This course provides entry-and intro-level training in computerized graphic design. Students learn basic computer operations, employing page layout, illustration and photo-manipulation software; peripheral use, including scanners and plotters, and file-management integration. Instruction covers typography, design elements, color management, and hand-drawing techniques. The creative and technical process of project management also is taught, with an emphasis on concept-to-completion planning. 180 hours is needed to complete the course. Students competing this course with a grade of A or B are eligible to earn units of community college credit.</p>	
<b>COMPUTERIZED GRAPHIC DESIGN 3, 4 (11-12) 8513, 8514</b>	<b>Meets "A - G" requirement: F</b>
<p>This course provides entry-and intermediate-level training in computerized graphic design. Students advanced computer operations, employing page layout, illustration and photo-manipulation software; peripheral use, including scanners and plotters, and file-management integration. Instruction covers typography, design elements, color management, and hand-drawing techniques. The creative and technical process of project management also is taught, with an emphasis on concept-to-completion planning. 180 hours is needed to complete the course. Students competing this course with a grade of A or B are eligible to earn units of community college credit.</p>	

# 2019 - 2020 Serra Course Offerings

## ARTS, MEDIA AND ENTERTAINMENT/DIGITAL TECHNOLOGY

### VIDEO PRODUCTION

<b>VIDEO PRODUCTION 1, 2</b> <b>(9-12) 8373, 8374</b>	<b>Meets "A - G" requirement: f</b>
<p>Students learn to produce and direct television shows and operate all studio equipment, including cameras, teleprompters, lighting and recording, and character generators. Students learn the basics of script writing, the elements of story structure, and the basics of non-linear editing.</p>	
<b>VIDEO PRODUCTION 3, 4</b> <b>(10-12) 8375, 8376</b>	<b>Meets "A - G" requirement: F</b>
<p>Prerequisite: Video Production 1,2</p> <p>This course develops student skills in video production. Areas of emphasis include scriptwriting, equipment operation, studio and remote production techniques, on-camera oral communication skills, critical television viewing, and occupational opportunities in video.</p>	
<b>MULTI-MEDIA PRODUCTION 1, 2, 3, 4</b> <b>(9-12) 8839, 8840, 8841, 8842</b>	<b>Meets "A - G" requirement: F</b>
<p>These courses provide instruction in media technology and production. Instruction covers audio and video production, computer graphics and animation, and multimedia presentations, as well as the use of video recorders, cameras, projectors, special effects generator, audio mixers, electronic keyboards, scanners, digitizers, and printers. The items and learnings in this class help students to become graphic designers, artists, photographers, programmers and musicians. Web-designing, animator, sound technician and video-assistant.</p>	

# 2019 - 2020 Serra Course Offerings

## PROJECT LEAD THE WAY (PLTW)

### ENGINEERING PATHWAY

Project Lead the Way (PLTW) and San Diego State University have a Memorandum of Understanding with local schools that offer Project Lead the Way engineering courses. This MOU guarantees priority situation to SDSU's College of Engineering if a student completes the following: Is registered with the PLTW Affiliate Institute by their junior year of high school, Attains a 3.0 college-weighted GPA; Applies to SDSU by the posted deadline (typically the end of November), Completes all CSU A-G course requirements including 4 years of math; Completes at least two PLTW courses with a minimum grade of "B", Passes or clears the ELM (Entry Level Math Placement Test); Passes or clears the EPT (Entry Level English Placement Test); Has taken the SAT or ACT test; Submits a portfolio of their engineering work by Jan. 31; Applies for PLTW scholarships.

<b>INTRODUCTION TO DESIGN 1,2 (Engineering)</b> <b>(9) 3657, 3658</b>	<b>Meets "A - G" requirement: F</b>
Introduction to Design is a foundation course in PLTW's engineering pathway of courses. It utilizes the same curriculum as Introduction To Engineering Design I 1,2, but includes supplemental units of instruction and projects that address the five strands of the state Visual and Performing Arts content standards.	

<b>PRINCIPLES OF ENGINEERING 1, 2 HONORS</b> <b>(10-12) 8847, 8848</b>	<b>Meets "A - G" requirement: G</b>
<i>Prerequisite: Completion of Intro to Design</i>	
This Project Lead the Way course helps prepare students for post-secondary education. The course helps students understand the fields of engineering and engineering technology. Students explore various technology systems and manufacturing processes, which helps them learn how engineers and technicians use mathematics, science, and technology in an engineering problem-solving process to benefit people. The course also addresses concerns about social and political consequences of technological change. Students use computers, measuring instruments, testing equipment, and computer-controlled automation equipment.	

<b>COMPUTER INTEGRATED MANUFACTURING 1,2 HONORS</b> <b>3586, 3587</b>	<b>Meets "A-G" requirement: G</b>
<i>Prerequisite: Completion of Intro to Design and Principles of Engineering</i>	
Computer-Integrated Manufacturing is the study of manufacturing planning, integration, and implementation of automation. The course explores manufacturing history, individual processes, systems, and careers. In addition to technical concepts, the course incorporates finance, ethics, and engineering design, reflecting the integrated approach that leading manufacturers have adopted to improve safety, quality and efficiency. Students analyze, design, and build	

# 2019 - 2020 Serra Course Offerings

manufacturing systems and then apply knowledge they have gained throughout the course in a final open ended problem to build a factory system.

## PROJECT LEAD THE WAY (PLTW)

### HEALTH SCIENCES/BIOMEDICAL PATHWAY

**PRINCIPLES OF BIOMED (PLTW) 1,2 HONORS  
6438, 6439**

**Meets "A-G" requirement: G**

This course students are introduced to human medicine, including research and biotechnology. Hands-on projects allow students to study human body systems and diseases. They investigate lifestyle choices and medical treatments that may prolong life. Other topics include metabolism, inheritance of traits, feedback systems, and defense against disease.

**HUMAN BODY SYSTEMS (PLTW) 1, 2 HONORS  
3313, 3314**

**Meets "A-G" requirement: G**

This course continues instruction begun in the introductory class. It narrows the focus to human body systems and how they interact to maintain internal balance and good health. Students learn about the processes, structures, and connections of the human body systems through hands on investigation; they design experiments to explore modes of communication within the human body, and get an up close version on how movement is achieved.

**MEDICAL INTERVENTIONS (PLTW) 1, 2 HONORS  
8265, 8266**

**Meets "A-G" requirement: G**

This course students are introduced to a wide range of medical interventions related to the immune system, genetics, pharmacology, surgery, medical devices, and diagnostics. Interventions range from simple diagnostic tests to complex treatments for complex disorders extending and improving the quality of life.

# 2019 - 2020 Serra Course Offerings

## VISUAL AND PERFORMING ARTS (VAPA) PATHWAY

<b>Art 1, 2 (9-12) 0191, 0192</b>	<b>Meets "A - G" requirement: F</b>
<p>This course serves as a basis for general visual art education, providing a foundation for advanced art courses. It integrates production, aesthetics, criticism, and art history through the exploration of visual art elements and principles.</p>	
<b>MARCHING BAND UNIT (9-12) 5843 BAND 1,2,3,4,5,6,7,8 (9-12) 5021, 5023</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite Teacher recommendation; instrument played will determine class period/section.</i></p> <p>Meets "A-G" requirement: none meets diploma requirement or f credit if 0 period PE or taken for 2 years already A fall semester course that includes physical fitness activities and instruction in performing marching activities. Any student desiring to be in the Marching Band must take this course in the fall. Weekend performances and rehearsals outside of normal school hours are part of the course and will be graded.</p>	
<b>ORCHESTRA (SENIOR HIGH) 1, 2, 3, 4 (9-12) (STRING ORCHESTRA) 5335, 5336, 5337, 5338</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisites: Teacher recommendation.</i></p> <p>A two-semester course designed to provide instruction in string ensemble and full orchestral techniques and literature.</p> <p>Extracurricular rehearsals and performances are considered part of the course and are graded.</p>	
<b>JAZZ ENSEMBLE 1, 2 5330 5331</b>	<b>Meets "A-G" requirement: F</b>
<p>This course teaches the musical concepts and technique of performing jazz at a beginning level. In this course, students will learn how to produce controlled and accurate pitch and create a mature jazz tone, as well as learn the basics of music notation and musical vocabulary. Student will be exposed to the major scale and diverse repertoire and will be asked to think deeply about the discipline of music from a number of perspectives, including style, genre, mood, and historical and cultural context. Additional topics of study include demonstrating appropriate performance etiquette, identifying musical contrasts, evaluating performances, and creating new music through compositions and improvisations.</p>	

# 2019 - 2020 Serra Course Offerings

<b>MUSIC THEORY 1, 2</b> <b>5371, 5372</b>	<b>Meets "A-G" requirement: F</b>
<p>This course is for students who are interested in advanced music studies. Students will use and identify standard vocabulary and language of music and rhythm, harmony and musical structure.</p>	

<b>CHOIR 1, 2</b> <b>(5050, 5051)</b>	<b>Meets "A - G" requirement: F</b>
<p>This standards based course provides instruction in the basic principles of musicianship and promotes familiarity with standard choral literature. Choir may be made up of mixed voice or separate groups selected on the basis of voice quality or range. This course is designed for students with no previous choral experience.</p>	

<b>TECHNICAL THEATRE 1, 2</b> <b>(9-12) 1413, 1414</b>	<b>Meets "A - G" requirement: F</b>
<p>Quiet on the set! This class is designed for the student interested in "technical theater" who desires special instruction and hands-on training in scenic and lighting design, set construction, sound, costumes, and stage management. You will work on all main stage productions. Note: Participation in extracurricular/after school theatre productions is required as part of the course curriculum.</p>	

<b>TECHNICAL THEATRE 3, 4</b> <b>(9-12) 1462, 1463</b>	<b>Meets "A - G" requirement: F</b>
<p>Prerequisites: Successful completion of Technical Theater 1, 2 (1413, 1414) with a grade of B or better. Students also must pass a district-required safety test. Note: Participation in extracurricular theater productions is required as part of the course curriculum.</p> <p>This course continues instruction begun in Technical Theatre 1, 2 and forms part of a sequential course of study in technical theater and production. Students who take this course will develop their own designs for school productions and execute them for performance. They will create designs for the sets, lighting, costumes, and sound of these productions—including sketches, ground plans, renderings, color charts/swatches, and models—and work with other designers and the director to develop a unified design scheme for each one. Students also will serve as crew chiefs during construction, supervising the work of Technical Theatre 1, 2 students. Stage-management responsibilities with full prompt books also will be required for all productions. Note: Participation in extracurricular/after school theatre productions is required as part of the course curriculum.</p>	

# 2019 - 2020 Serra Course Offerings

<b>THEATRE 1, 2</b> <b>(9-12) 1423, 1424</b>	<b>Meets "A - G" requirement: F</b>
<p>Act up and get away with it! Enthusiastically unleash your imagination through the art of acting. In this encouraging environment, the new drama student will develop fundamental acting skills through a variety of creative and exciting workshops, improvisations, Reader's Theater, and scene work. Students will also be introduced to the basics of technical theatre. Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.</p>	

<b>THEATRE 3, 4</b> <b>(10-12) 1425, 1426</b>	<b>Meets "A - G" requirement: G</b>
<p><i>Prerequisite Drama 1, 2 with a grade of "C" or better or teacher recommendation.</i></p> <p>Let's have more fun! A continuation of Drama 1, 2 with much more emphasis on character study and development. Also learn important techniques that will prepare you to audition for stage, commercial, and film opportunities. Develop your skills as a director through script and scene study. Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.</p>	

<b>THEATRE 5, 6</b> <b>(11-12) 1427, 1428</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite: Teacher recommendation.</i></p> <p>Use it! Explore college theater programs and other career opportunities in the drama field. Advance your skills in directing concepts, acting skills, and play production. Participate in class and school productions.</p> <p>Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.</p>	

<b>THEATRE 7, 8</b> <b>(11-12) 1429, 1430</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite Teacher recommendation.</i></p> <p>Use it! Explore college theater programs and other career opportunities in the drama field. Advance your skills in directing concepts, acting skills, and play production. Participate in class and school productions.</p> <p>Note: Participation in extracurricular/ after school theatre productions is required as part of the course curriculum.</p>	

# 2019 - 2020 Serra Course Offerings

<b>THEATRE: THE MUSICAL 1,2 1411, 1412</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite An audition with a prepared song; ability to carry a melody.</i></p> <p>This two-semester course provides a guided workshop in which students can practice and polish their musical-theatre audition and performance skills. It requires students to be self-disciplined and able to set and reach individual goals to make the best use of available resources. Students are required to give individual and ensemble performances on a regular basis, and are expected to do homework outside of class, including research, report writing, and practice. This course includes the study of the musical theatre form, history and styles, as well as major figures in musical theatre. Instruction comes from a combination of departments, including theatre, music, and dance.</p>	

<b>THEATRE: THE MUSICAL 3,4 1453, 1454</b>	<b>Meets "A - G" requirement: F</b>
<p><i>Prerequisite Theatre: Theatre: Musical 1,2</i></p> <p>This course provides students with a second year of study in musical theatre. Topics include audition techniques, musical theatre history, performance preparation and presentation, and show selection and design. Students who take this course will participate in individual and ensemble performances on a regular basis.</p>	