

# MATER DEI CATHOLIC HIGH SCHOOL

## CURRICULUM GUIDE

This booklet lists and describes all courses offered for the school year. Regardless of the current status of a student, the minimum number of units required for graduation from Mater Dei Catholic High School is two hundred eighty. Five units are awarded for completing a semester course.

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**MISSION**

*Mater Dei Catholic High School is a Roman Catholic College Preparatory School dedicated to faith formation and the pursuit of excellence.*

**VISION**

*To become the premier provider of Catholic education in the Diocese of San Diego and foster the education and faith of each student.*

**EXPECTED SCHOOL-WIDE LEARNING RESULTS (ESLR)**

Mater Dei Catholic High School prepares its graduates to be:

**1. Christ Centered Persons who:**

- ◆ Foster and demonstrate the Catholic values of compassion, respect, justice, morality and dignity in their lives.
- ◆ Are committed to a life of stewardship and service to others.
- ◆ Lead an active life of prayer.

**2. Life-Long Self-Directed Learners who:**

- ◆ Set challenging goals, determine priorities, and organize responsibilities while maintaining personal and academic integrity.
- ◆ Think critically and creatively in solving problems and interpreting, evaluating and applying ideas.
- ◆ Recognize and responsibly utilize resources and adapt to the changing world.

**3. Effective Communicators who:**

- ◆ Exercise efficient critical listening and reading skills.
- ◆ Articulate written and verbal ideas clearly, creatively, and logically.
- ◆ Possess the language skills to peacefully resolve conflicts and interact in a globally interdependent society.

**4. Collaborative individuals who:**

- ◆ Participate effectively in a variety of leadership and supportive roles.
- ◆ Recognize, accept and exercise social responsibilities and civic duties.
- ◆ Respect and value individuals from culturally diverse backgrounds and abilities.

## GRADUATION REQUIREMENTS

COURSE	SEMESTER UNITS
Theology	40
English	40
Mathematics	30
Social Science	30
Science	30
World Language	20
Physical Education	20
Visual & Performing Arts	10
Speech/Study Skills	10
Other Elective Courses	50
<i>100 Christian Service Hours are required for Graduation. They are to be twenty-five (25) per year.</i>	
<i>Successful completion of AWP Competency Exam or subsequent writing workshop.</i>	

## ANALYTICAL WRITING PROGRAM (AWP) COMPETENCY EXAM

All sophomores (10th graders) are required to take and pass the AWP Competency Exam, which is administered to all English 2 students near the end of the second semester. The exam consists of a prompt to which students must respond in AWP format. Students who do not pass the exam must retake it on final exam make up day.

If a student fails the AWP Competency Exam, but passes English 2, he/she will only have to take and pass a writing intensive course for a minimum of the first semester of junior year. If a student fails both English 2 and the AWP Competency Exam, he/she will have to re-take and pass English 2. Academic grades for English 2 will remain separate from the AWP Competency Exam. Thus, performance on the exam will not affect the English 2 grade

## TYPICAL FOUR YEAR STUDY PLAN

	<b>SEMESTER ONE</b>	<b>SEMESTER TWO</b>
<b>GRADE 9</b>	Theology English Mathematics World Language World Cultures Study Skills Physical Science	Theology English Mathematics World Language World Cultures Speech Physical Science
<b>GRADE 10</b>	Theology English Mathematics World Language Biology Visual & Performing Arts Physical Education	Theology English Mathematics World Language Biology Visual & Performing Arts Physical Education
<b>GRADE 11</b>	Theology English Mathematics Chemistry U.S. History World Language Elective(s)	Theology English Mathematics Chemistry U.S. History World Language Elective(s)
<b>GRADE 12</b>	Theology English American Government Mathematics Science World Language Elective(s)	Theology English Economics Mathematics Science World Language Elective(s)

## REQUIREMENTS FOR UNIVERSITIES/COLLEGES

In planning your high school program, you should know the subject and grade requirements for the university and/or college you may be selecting.

### UNIVERSITY OF CALIFORNIA (UC) REQUIREMENTS

To determine the minimum eligibility of a student, the University of California computes a GPA based on the following A-G courses. *Only grades of “C” or higher are accepted by the UC System.*

#### A. Social Science - Two years required

Two years of social science, including one year of world history, cultures and geography; and one year of U.S. History or one-half year of U.S. History and one-half year of civics or American Government.

#### B. English - Four years required

Four years of college preparatory English that include frequent and regular writing, and reading of classic and modern literature. Not more than two semesters of ninth grade English can be used to meet this requirement.

#### C. Mathematics - Three years required, four years recommended

Three years of college preparatory mathematics that include the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Approved integrated math courses may be used to fulfill part or all of this requirement, as may math courses taken in the seventh and eighth grades that your high school accepts as equivalent to its own math courses.

#### D. Laboratory Science - Two years required, three years recommended

Two years of laboratory science providing fundamental knowledge in two of these three core disciplines: biology, chemistry and physics. The latter two years of an approved three-year integrated science program may be used to fulfill this requirement. Not more than one year of ninth grade laboratory science can be used to meet this requirement.

#### E. Language Other Than English - Two years required, three years recommended.

Two years of the same language other than English. Courses should emphasize speaking and understanding, and include instruction in grammar, vocabulary, reading, composition and culture. Courses in language other than English taken in the seventh and eighth grades may be used to fulfill part of this requirement if your high school accepts them as equivalent to its own courses.

#### F. Visual and Performing Arts (VAPA) - One year required

One year of visual and performing arts chosen from the following: dance, drama/theater, music or visual art.

#### G. College Preparatory Electives - One year required

One year (two semesters), in addition to those required in “a-f” above, chosen from the following areas: visual and performing arts (non-introductory level courses), history, social science, English, advanced mathematics, laboratory science and language other than English (a third year in the language used for the “e” requirement or two years of another language.)

In deciding admission to the UC System, 10th and 11th grade GPA is used with SAT I or ACT scores.

## CALIFORNIA STATE UNIVERSITY (CSU) REQUIREMENTS

### SUBJECT REQUIREMENTS:

You must complete (with a grade of “C” or better) the following pattern of college preparatory subjects totaling 15 units. A unit is one year of study in high school.

Four years	<ul style="list-style-type: none"> <li>• English</li> </ul>
Three years	<ul style="list-style-type: none"> <li>• Mathematics (Algebra 1, Geometry, and Algebra 2; or integrated mathematics including these)</li> </ul>
Two years	<ul style="list-style-type: none"> <li>• Social Science, including one year of U.S. History or U.S. History and Government</li> <li>• Science with a laboratory (one year biological and one year physical)</li> <li>• World Language (the same language)</li> </ul>
One year	<ul style="list-style-type: none"> <li>• Visual and Performing Arts: Art, Dance, Theatre/Drama, or Music</li> <li>• Elective chosen from the subject areas listed above or approved college preparatory elective courses.</li> </ul>
15 units total subjects	

**STUDENTS AND PARENTS PLEASE NOTE:** The University of California does NOT accept a higher weighted Grade Point Average for any 9th or 10th grade Honors class nor does it accept a higher weighted Grade Point Average for any 11th or 12th grade English Honors class, IF that high school also offers an Advanced Placement course in the same subject. If a student takes the Honors course and not the Advanced Placement course, the University of California will not give extra weighted credit for the Honors course.

The University of California DOES accept a higher weighted Grade Point Average for all 11th and 12th grade Honors courses if there is not an Advanced Placement course taught in that same subject and the University of California DOES accept all Advanced Placement courses no matter what year that course is taken.

### OTHER UNIVERSITIES AND COLLEGES

Subject requirements are usually met by our graduation requirements. However, these institutions set their own admission requirements. Check the college catalog of the particular college in which you are interested to find out the requirements for admission.

## ADVANCED PLACEMENT (AP) PROGRAM GUIDELINES

Advanced Placement is a program of college-level courses and exams offered for secondary students in American high schools for potential college/university credit. The following one year Advanced Placement courses are offered at Mater Dei Catholic High School:

- ◆ American Government and Politics
- ◆ The History of Art and Architecture
- ◆ Biology
- ◆ Calculus AB
- ◆ Calculus BC
- ◆ Chemistry
- ◆ English Literature
- ◆ Environmental Science
- ◆ European History
- ◆ French Language and Culture
- ◆ Physics 1
- ◆ Spanish Language and Culture
- ◆ Spanish Literature
- ◆ United States History

### REQUIREMENTS FOR THE ADVANCED PLACEMENT (AP) PROGRAM

1. Students are admitted to Advanced Placement courses based on grades from previous courses. Final approval for admission into any Advanced Placement course rests with the recommendation of the teacher in that specific discipline. For example, to move to Advanced Placement European History, you must have a recommendation from your World Cultures teacher and your English teacher. Please see individual course descriptions for specific prerequisites.
2. Students are expected to maintain a minimal grade of B- (80%) in that Advanced Placement course. If a student receives a first grading period grade of less than a B- (80%), that student may be asked to drop that class.
3. All students are encouraged to maintain perfect attendance in order to better achieve success in the course. Accordingly, the following guidelines will be in effect:
  - a. After three (3) absences in any given grading period, the teacher may initiate a meeting with the student and his/her academic counselor concerning the student's eligibility in the course.
  - b. Students may not miss a class for an extra-curricular activity such as sports, ASB meeting, etc., unless prior notification has been given to the Advanced Placement teacher.
4. Students enrolled in an AP class must take the National Advanced Placement Exam in May.
5. The National Advanced Placement Exam fee must be paid before the end of the first grading period. Students will not be allowed to continue in their AP class without this payment.
6. If, for any reason, the student does not take the National Exam, they will not receive Advanced Placement notation or weighting in their GPA or their transcript. These students will also not receive a refund for the AP exam.
7. Students signing up for an Advanced Placement class may expect to receive a summer reading list of selected works that they will be held accountable for in that course. Failure to be prepared may result in a poor academic beginning to that semester and may result in a low fall semester grade.
8. If a student NOT ENROLLED in an AP course wishes to take an Advanced Placement Exam, he/she must notify the Advanced Placement coordinator in writing BEFORE November 1st so that we may order that exam. Failure to do so may result in the exam not being sent on time; thus, denying you the opportunity to take that exam the following May.

### ACADEMY OF SCIENCE

The Academy of Science is a unique and unparalleled collaborative educational experience in which high achieving students are challenged to expand their intellect, and to develop skills in scientific inquiry, critical thinking, problem solving and work-based learning. The Academy's academically rigorous learning environment focuses on science, technology, engineering, arts, and mathematics (STEAM), while fostering a culture of innovation based on leadership, social justice and serving our global community.

The Academy of Science promotes three objectives for our students:

1. STEAM fundamental skills (reading comprehension, science writing, mathematics, test taking) for College Readiness
2. Work-based learning incorporating STEAM research and innovative experiences with San Diego's STEAM community professionals. .
3. Career development and resume building in STEAM

Entrance into Science Academy as a Sophomore:

- Must earn a B- or above in math, science & English classes in the students' Freshman year.
- Must complete Algebra 1 with a B- or above.
- Must have a cumulative 3.00 GPA.
- Did not receive a D or F in the Freshman year.

Students participating in the Academy of Science are strongly encouraged to read the information about the Academy of Science in the Curriculum Guide. Information concerning diploma requirements, grades and the appeal process are detailed.

**To participate in the Academy of Science and receive an Academy of Science Diploma, there are two different tracks to follow: Science Academy and Science Academy with Honors. The below table explains the requirements for each track.**

TRACK	SCIENCE ACADEMY WITH HONORS	SCIENCE ACADEMY	MATER DEI REQUIREMENTS
DIPLOMA	MDCHS Science Academy diploma with Honors distinction. MDCHS Cum GPA: 3.75 or above.	MDCHS Science Academy diploma Cum GPA: 3.0 or above.	MDCHS diploma
REQUIRED CLASSES	4 years of Science with 1 advanced science class. Minimum grades of B- in all Science classes.	4 years of Science with minimum grades of C+ in all classes. ChemCom not allowed as a class.	3 years of Science
	4 years of Math & English including Pre-Calculus. Minimum grade of B- in all classes.	4 years of English. Complete Pre-Calculus OR 4 years of Math. Minimum grade of C+ in all Math and English classes.	3 years of Math
	Science Academy 1, 2 & 3. Minimum grade of B- in all Science Academy classes. Science Academy III required.*	Two years of Science Academy classes. Minimum grade C+ in Science Academy classes.	None
STEAM SUMMER INTERNSHIP	Participate in STEAM internship. 60 hours.	STEAM Internship preferred but not required.	None
COMPETITION	Participate in as many STEAM competitions as possible; builds your resume for college.	Same as Honors.	None
FIELD TRIPS	Field trips for STEAM career exploration when enrolled in Science Academy classes.	Same as Honors.	None
*Grades to determine Science Academy recognition for graduation ceremonies are determined at the end of the 5th grading period Senior year.			
**Students entering Science Academy as a Junior may earn an Honors Diploma. This student must complete all Honors requirements AND complete Science Academy III for one year.			

### LANGUAGE ACADEMY

The Language Academy is funded by the ALSAM Foundation to provide additional instruction and support for students who are English Language Learners. The program was developed to assist students in achieving the academic English necessary for success in a college preparatory high school environment. Students will gain proficiency in English, as well as receive additional academic support. Coursework through the Academy is mandatory for any student in his/her first year in a United States school or for students who lack English proficiency.



## SPECIAL POLICIES AND PROGRAMS

1. **Schedule Change:** Schedules are changed within reason if it is logistically possible: parent permission is necessary. Students may change their schedule only during the FIRST WEEK OF THE SEMESTER. A year course may be dropped at the mid-year point only with parental permission and administrative approval. A teacher may initiate a course change if a student is inappropriately placed in a class.
2. **Failures:** Students must carry seven classes and PASS each class for which they are scheduled. A student who receives an “F” receives NO CREDIT for that course. The student must make up the credits in summer session during the following summer. Certain core courses must be repeated at MDCHS.
3. **Physical Education:** Special consideration may be given to students with extraordinary scheduling needs.
4. **Service Hours:** The eight-semester Theology requirement does not include the Christian Service component. Twenty-five hours should be accumulated each year. This 100 hour service project is required for MDCHS graduates and should be completed by spring of the senior year.
5. **Summer Session:** Summer session is open to ALL students including incoming ninth graders. Summer session is also an opportunity for Honors and regular track students to take elective courses to open up opportunities to take additional courses. It is also a chance for students to retake courses in which they did not earn a passing grade. All summer session classes MUST be approved by a Mater Dei Catholic High School counselor prior to enrollment in order for credit to be accepted by MDCHS.
6. **Course Waivers:** Juniors who plan their program to include four years of Mathematics, four years of World Language and four years of Science and are unable to complete all graduation requirements, may petition to have a course waived. Petitions must be made in the junior year for course waivers.
7. **Ability Level Code:** (*Noted in course title.*)
  - ◆ AP: Advanced Placement courses are college level. Students taking these courses may receive college credit if they successfully pass the National AP exam with a score of 5, 4, or 3. These classes are weighted in the student’s GPA. Students enrolled in AP classes are required to take the National AP exam in May, and pay for it by the end of the first grading period.
  - ◆ H: Honors courses demand that students do work of superior quality. These classes are weighted in the student’s GPA. However, weighting for honors courses may not be counted by colleges/ universities.

All other courses are standard college prep: (A=4.0; B=3.0; C=2.0; D=1.0.).

## COURSE LISTINGS BY DEPARTMENT

### THEOLOGY DEPARTMENT

COURSE #	TITLE	GRADE
113.....	Divine Revelation .....	9
114.....	Introduction to Christology .....	9
123.....	Paschal Mystery.....	10
125.....	Introduction to Ecclesiology.....	10
134.....	Catholic Morality .....	11
135.....	Campus Ministry Practicum I.....	12
136.....	Campus Ministry Practicum II.....	12
137.....	Sacraments .....	11
141.....	Social Justice .....	12
142.....	Christian Call.....	12
150.....	Senior Capstone Project.....	12

#### 113. DIVINE REVELATION

FALL SEMESTER GRADE 9

This semester course is an introduction to the Word of God. It aims to focus the foundation of our faith in God the Father, Son and Holy Spirit. While this course includes a study of both the Old and New Testament, it begins by centering the study of Scripture on a person's natural instinct to search for God. The purpose of this course is to give students a general knowledge and appreciation of Sacred Scriptures. 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. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ.

#### 114. INTRODUCTION TO CHRISTOLOGY

SPRING SEMESTER GRADE 9

After a semester of Scripture, this course deepens the study of Jesus, highlighting key events in his earthly ministry while unpacking his teachings about God the Father, Jesus the Son and the Holy Spirit, the Trinity, and Mary. Students will be introduced to key vocabulary terms, explore relevant questions of faith, profile famous Christian disciples, and offers several applications to put the lessons of discipleship into action. The purpose of this course is to introduce students to the mystery of Jesus Christ as the living Word of God and to begin experiencing discipleship as a life of grace and holiness which will lead them to experience God's everlasting Kingdom. This course calls on teens to "pick up their cross" and follow the Lord in this life and beyond.

#### 123. PASCHAL MYSTERY

FALL SEMESTER GRADE 10

This course proclaims the Good News of the Paschal Mystery of Christ's Cross and Resurrection. In this course students will explore in greater depth the saving actions of the Lord. This course unpacks and studies the meaning of God's sacred and mysterious plan from creation, onward to the consequences and the promises of a Savior, while ultimately focusing on the Life, Passion, Death, and Resurrection of Jesus Christ. 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 entails. The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Students will seek to understand God's plan for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us.

#### 125. INTRODUCTION TO ECCLESIOLOGY

SPRING SEMESTER GRADE 10

This course will provide a means for understanding the interrelationship of the various components of the Catholic Church. While acknowledging the importance of the historical perspective this course emphasizes the living Church and what it is in the present moment. The course is constructed around those themes that represent Church practice and belief such as the Church as the People of God, the Church as servant, and the Church as sacrament. Each theme has a historical component tracing the theme through major periods of Church history and providing insights as to how the Church has come to its contemporary expression.

**137. SACRAMENTS**

FALL SEMESTER GRADE 11

This course emphasizes the seven Sacraments as the definitive way Jesus remains present to the Church and the world today. It expresses concrete ways for understanding the Sacraments, participating in their rites, and benefiting from their graces. The four dimensions of each Sacrament including memorial, celebration, communion, and transformation will be emphasized. Each of these elements offers students the opportunity to further their relationships with Christ and the Church. The purpose of this course is to help students examine each of the Sacraments to understand that they can encounter Christ today and throughout their life, especially through the Eucharist.

**134. CATHOLIC MORALITY**

SPRING SEMESTER GRADE 11

The purpose of this course is to present the essential message of Christ's moral teaching. This course focuses on love of God and love of neighbor and is presented in manner that is clear and applicable to the lives of today's teenagers. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples. Students will be challenged to develop a well-formed conscience and incorporate virtue into their lives, which will serve them as Catholic Christian adults to make moral choices and grow in their faith. The course covers the major points of the "Life in Christ" section of the Catechism of the Catholic Church. It pulls together these elements by using specific step to take on the road to becoming a moral Christian living within the context of Catholic teaching and incorporates the discussion of general principles of morality and focuses on real world scenarios to help students understand how their actions and choices contribute to a moral Christian living within the context of Catholic teaching.

**135. CAMPUS MINISTRY PRACTICUM I**

GRADE 11

Students will learn the purpose and meaning of the seven Sacraments in the Church and their lives. In addition, students will learn Liturgical Theology. Students will also learn how to plan, organize, and facilitate on-campus liturgical celebrations. Second semester, students are challenged to develop a well-formed conscience and incorporate virtue into their lives. The course incorporates the discussion of general principles of morality and focuses on real world scenarios to help students understand how their actions and choices contribute to a moral society. In addition, students will begin their leadership training to organize retreats as senior campus ministers. *Prerequisites: Application, letter of intent, interview, teacher recommendation.*

**136. CAMPUS MINISTRY PRACTICUM II**

GRADE 12

Students will come to an understanding of the Roman Catholic Church's teachings on social justice and Christian life choices as described in both the Catholic Social Justice and course Christian Call courses. In addition, students will learn the Christian theology and spirituality of retreats. Students will learn the basic leadership skills in planning, organizing, and facilitating retreats to students of various grade levels at MDCHS. Students will use these skills to lead student facilitated and organized retreats to their peers. Throughout the year, students will put to practice their instruction of Catholic Social Teaching by implementing campus wide social justice education and charity drives. Students assume active ministerial roles to their peers and leadership roles on campus. *Prerequisites: At least one semester of Campus Ministry Practicum I*

**141. SOCIAL JUSTICE**

FALL SEMESTER GRADE 12

This course introduces high school students to issues surrounding the key principles of the Church's rich body of social teaching that comes to us from the strong tradition of the writings of the popes, especially since Pope Leo XIII. This course awakens students to the social commitment of our Catholic Christian faith and begins to empower students to respond to the critical collective and ethical issues of our day. This course aims to examine the essential elements required in creating a just society as expressed in the Scriptures, and the mission and social teaching of the Catholic Church. Two important principles, including the life and dignity of the human person and respect for life, are the foundational principles for this course. A strong emphasis will be placed on Christ's concern for others, especially the poor and vulnerable members of our domestic and global society as witnessed in the Gospel, the common good, solidarity, and stewardship. Topic and issues studied will include right to life, poverty, hunger, economic justice, housing, employment and the rights of workers, power, racism, oppression, conflict and war, peaceful resolutions and an ecological mandate for stewardship.

**142. CHRISTIAN CALL**

SPRING SEMESTER GRADE 12

Young adulthood is an important transitional period in every person's life. This course is designed to aid high school senior in facing the challenges of young adulthood so that they can shape a future that is hopeful, healthy and fulfilling. The belief that underlies this course is that as Catholic Christians, each student is being called by God to proclaim the Good News of the coming Kingdom and to enthusiastically live a life of service. This course will focus on topics that are of utmost importance to seniors as they grow towards young adulthood, as well as offer tools that will be useful in their mission of vocational discernment to grow in living a fully committed Christian life.

**150. SENIOR CAPSTONE PROJECT**

GRADE 12

The Senior Capstone Project class serves as a culminating academic experience. Its purpose is to reflect on the student's personal, academic and spiritual accomplishments and growth at Mater Dei Catholic High School, and to provide an opportunity for the student to expand and apply knowledge for future endeavors through the "Passion Project" practicum process with the guidance of a professional mentor.

## ENGLISH DEPARTMENT

COURSE #	TITLE	GRADE
210.....	English 1: Grammar, Composition & Literature.....	9
212.....	English 1 Honors: Grammar, Composition & Literature .....	9
810.....	Study Skills.....	9
820.....	Speech.....	9
220.....	English 2: World Literature.....	10
222.....	English 2 Honors: World Literature .....	10
230.....	English 3: American Literature.....	11
232.....	English 3 Honors: American Literature .....	11
240.....	English 4: British Literature.....	12
243.....	English 4: AP Literature And Composition.....	12
245.....	World Fiction.....	12
250.....	Journalism .....	10-12
251.....	Yearbook .....	10-12
260.....	Expository and Analytical Writing (EAW).....	10-11

### 210. ENGLISH 1: GRAMMAR, COMPOSITION & LITERATURE

YEAR GRADE 9

English 1 is an in-depth study of grammar, composition and literature. The study of literature will emphasize the five genres of epic/oral tradition, fiction, non-fiction, drama and poetry. Students will study mythology, folklore, legend and the literary classics. Students will be introduced to the Analytical Writing Program (AWP), a structured writing system that helps students develop comprehensive planning, writing and critical thinking skills. Students also progress in the specific study of grammar, punctuation, oral communication and collaborative skills.

### 212. ENGLISH 1 HONORS: GRAMMAR, COMPOSITION & LITERATURE

YEAR GRADE 9

English 1 Honors covers all topics of English 1, but is taught at a more demanding and accelerated pace. Students will read many more literary classics, have more written assignments and will learn how to better analyze literary works in greater depth. *Prerequisite: Performance above 85th percentile on HSPT in Reading Comp and above 75th percentile in Verbal and Language.*

### 810. STUDY SKILLS

YEAR GRADE 9

Study Skills is a required freshmen course to assist them to enhance and improve their various abilities in faster critical reading, concise logical writing, scientific analysis and mathematical computations. *This course fulfills an MDCHS requirement, but DOES NOT fulfill one of the four-year English requirements.*

### 820. SPEECH

SEMESTER GRADE 9

This course instructs students in various methods and styles of public speaking. Students learn to plan, organize, and deliver public messages. Logical reasoning, listening, collaborative, and critical thinking skills are cultivated. *This course fulfills an MDCHS requirement, but DOES NOT fulfill one of the four-year English requirements.*

### 220. ENGLISH 2: WORLD LITERATURE

YEAR GRADE 10

English 2 is a survey of world literature with an emphasis on non-British and non-American works. The course covers ancient Greece to present day works. Students further develop critical thinking and analysis skills by using advanced Analytical Writing Program (AWP) concepts. Literary terminology, research processes, writing, vocabulary, grammar, and SAT preparation are also primary components.

### 222. ENGLISH 2 HONORS: WORLD LITERATURE

YEAR GRADE 10

This course covers all topics of ENGLISH 2, above, but is structured to challenge the more advanced student. Students read more material and analyze literary pieces with greater depth, maturity, and intensity. Just as in ENGLISH 2, this is a survey course of world literature that exposes students to masterpieces from ancient Greece to contemporary literature. Students further develop critical thinking and analysis skills by using more demanding, advanced Analytical Writing Program concepts. Literary terminology, research processes and writing, and SAT preparation are also primary components. *Prerequisite: Teacher recommendation and "B-" in English 1H or "A-" in English 1.*

**230. ENGLISH 3: AMERICAN LITERATURE SURVEY**

YEAR GRADE 11

English 3 is a survey course of American literature that exposes students to significant American literary pieces from the early 17th century to the present. Students examine American heritage and culture as presented in literary form across novels, short stories, dramatic pieces, poetry, and nonfiction accounts. Students further practice critical thinking, drafting, peer editing, and revision skills by using more advanced Analytical Writing Program concepts.

**232. ENGLISH 3: HONORS: AMERICAN LITERATURE SURVEY**

YEAR GRADE 11

This is an advanced course in American Literature intended to challenge students with more developed, mature analytical prowess and ability. Like English 3, it is a survey course of American literature that exposes students to significant American literary pieces from the early 17th century to the present. Students examine American heritage and culture as presented in literary form across novels, short stories, dramatic pieces, poetry, and nonfiction accounts. Students further hone their already strong critical thinking, drafting, peer editing, and revision skills by using more advanced Analytical Writing Program concepts. *Prerequisite: Teacher recommendation and "B-" in English 2H or "A-" in English 2.*

**240. ENGLISH 4: BRITISH LITERATURE**

YEAR GRADE 12

This is a survey of English/British Literature from the writings of Beowulf around 800 AD to the present. Students study works representing the six genres of literature, including Medieval epics and folk tales, short stories, poems, plays, and novels. These genres are studied along with literary movements and trends and analyzed and applied in various written forms. Students evidence mastery of writing concepts, critical thinking and analysis skills through continued use of the structured writing program. Students engage in various collaborative projects, oral presentations and research processes. The year culminates in a term paper.

**243. ENGLISH 4: AP LITERATURE AND COMPOSITION**

YEAR GRADE 12

Advanced Placement Literature And Composition a college level course established by The College Board in Princeton, New Jersey. Students will read selections of poetry and prose fiction according to the Board's high standards of "recognized literary merit" from the early Classical Greeks to the present. This course focuses on close reading for literary content and interpretation. The course will test a student's ability to comprehend and interpret both the form and the substance of poetry and prose selections. Students are expected to write clear, concise, and persuasive interpretive papers and exams in which you demonstrate your understanding of the broad implications of particular works of literature. *Prerequisites: Teacher recommendation and "B-" in English 3H or "A-" in English 3.*

**245. WORLD FICTION**

YEAR GRADE 12

Students may take World Fiction instead of English/British Literature for their Senior English requirement. This course is a survey of fiction from around the world. Students will read a diverse range of critically acclaimed short stories and classical novels by world renowned authors thematically, not chronologically. Students will discuss, analyze, and write about these works as they impact personal relationships, environmental and cultural change, one's own free will, racism, gender discrimination, imperialism, and the ravages of war as it relates to nations, communities, and the individual human psyche. Students will increase their understanding of all peoples around the world as well as their reasoning and writing skills, vocabulary, language usage, analytical thinking, reading comprehension and research techniques. Students engage in various collaborative projects, oral presentations, and research processes. Students further practice advanced analytical writing program concepts.

**250. JOURNALISM**

SEMESTER GRADES 10-12

This is an elective offered during seventh period. The course focuses on writing for various audiences and instructs students in methods of media writing and use of technology in media productions. Students write stories, plan, organize, prepare, publish, and distribute the school newspaper, *The Crusader*. *Prerequisite: Approval of newspaper adviser and English teacher.*

**251. YEARBOOK**

1-3 SEMESTERS GRADES 10-12

This elective course is open to students who wish to demonstrate their ability to produce the school yearbook. This course offers instruction and practice in copy writing and editing, proofreading, writing of feature stories, captions, reviews, and human interest articles; headline writing, makeup, reporting, interviewing, typing in Microsoft Word, Word Perfect, Page Maker, layout design, photography, and business management, including advertising. Students also demonstrate their ability to write well under pressure, gather information independently and organize it cooperatively, and work effectively with their peers. Through extensive rewriting, students exhibit mastery in composition skills. *Prerequisite: Counselor/Instructor approval.*

**260. EXPOSITORY AND ANALYTICAL WRITING (EAW)**

GRADES 10-11

EAW is a writing support class for students who need additional support in writing. Students will use the writing process to create essays and multimedia presentations with attention to audience, expository writing structure, development of a thesis with supporting arguments and evidence as well as the use of appropriate academic vocabulary and conventions of AWP & MLA format.

## WORLD LANGUAGE DEPARTMENT

COURSE #	TITLE	GRADE
310.....	Spanish 1 .....	9-12
320.....	Spanish 2 .....	9-12
332.....	Spanish 3 .....	10-12
330.....	Spanish 3H.....	11-12
340.....	Spanish 4 .....	11-12
350.....	AP Spanish Language.....	11-12
352.....	AP Spanish Literature .....	11-12
311.....	French 1 .....	9-12
321.....	French 2.....	9-12
331.....	French 3.....	10-12
334.....	French 3 Honors.....	11-12
341.....	French 4 .....	11-12
351.....	AP French Language.....	11-12

### 310. SPANISH 1

YEAR GRADES 9-12

Spanish 1 is an introductory course intended to develop the student's ability to listen, speak, read and write Spanish correctly. Major emphasis is placed upon the ability to speak with accurate pronunciation. This course fulfills the first year of the World Language graduation requirement.

### 320. SPANISH 2

YEAR GRADES 9-12

Spanish 2 is intended to extend the student's ability in listening, speaking, reading, and writing. Major emphasis is placed upon developing fluency and accuracy of speech. Also included in this course will be topics emphasizing Hispanic culture. This course fulfills the second year of the World Language graduation requirement. *Prerequisite: Grade of "C" or better in Spanish 1, or approval of Department Chair.*

### 332. SPANISH 3

YEAR GRADES 10-12

This is an advanced Spanish course. The material covered is a reinforcement and advancement of that covered in Spanish 1 and 2. There is continued emphasis on pronunciation, writing, speaking and listening skills with a focus on conversation. Advanced grammar points are introduced and students are exposed to literary works of Spanish and Latin-American writers. *Prerequisite: Grade of "C-" or better in Spanish 2, or approval of Department Chair. Incoming students may gain entrance to this class through performance on the Spanish Placement Exam.*

### 330. SPANISH 3 HONORS

YEAR GRADES 11-12

This is a more accelerated pace in reading and writing in Spanish with the reading selections more numerous and advanced in vocabulary and interpretive issues. See Spanish 3 above for the general course description. *Prerequisite: Grade of "B-" or better in Spanish 2 and approval from Department Chair. Incoming students may gain entrance to this class through performance on the Spanish Placement Exam.*

### 340. SPANISH 4

YEAR GRADES 11-12

This is an advanced course in the Spanish language. Students will focus on a broad range of Spanish literature selected to enrich the understanding of Spanish culture. Emphasis on developing an advanced degree of proficiency in listening, speaking, reading, composition, vocabulary, grammar and analytical methods in Spanish will be of prime importance. *Prerequisite: Grade of "C-" or better in Spanish 3 with approval of Department Chair.*

**350. AP SPANISH LANGUAGE YEAR GRADES 11-12**

Advanced Placement Spanish Language is comparable to an advanced level college Spanish language course. This advanced Spanish course will continue to offer a continued emphasis on developing optimum proficiency in listening, speaking, reading, composition, vocabulary, spelling, grammar and critical thinking in the Spanish language. It will also expose the student to a broad range of Spanish writings selected to promote understanding of Hispanic literature and its place in Hispanic culture. The AP Spanish student is expected to take the AP Exam in May. There is a required additional fee. *Prerequisite: Grade of "B-" or better in Spanish 3/3H/4, with consent of the instructor and the Department Chair.*

**352. AP SPANISH LITERATURE YEAR GRADES 11-12**

Advanced Placement Spanish Literature is taken after AP Spanish Language and is comparable to a college course on the introduction to Hispanic literature. It is based on a required reading list. The works on the list are of literary significance and represent various historical periods, literary movements, genres, geographic areas, and population groups within the Spanish-speaking world. The objective of the course is to help you interpret and analyze literature in Spanish. The AP Spanish student is expected to take the AP Exam in May. There is a required additional fee. *Prerequisite: Grade of "B-" or better in AP Spanish Language, with consent of the instructor and Department Chair.*

**311. FRENCH 1 YEAR GRADES 9-12**

This introductory course in French is intended to provide students with the ability to listen, speak, read and write French correctly. Major emphasis is placed upon the ability to speak with accurate pronunciation. An introduction to French culture is integrated into the language study.

**321. FRENCH 2 YEAR GRADES 9-12**

French 2 is intended to extend the student's ability in listening, speaking, reading and writing. Major emphasis is placed upon developing fluency and accuracy of speech. Also included in this course will be topics emphasizing French culture. Required for those who meet prerequisite. *Prerequisite: Grade of "C-" or better in French 1 or approval of Department Chair.*

**331. FRENCH 3 YEAR GRADES 10-12**

French 3 will review grammar previously studied and emphasis will be placed on the reading of short stories, conversation and the writing of free composition. Individual projects will allow students to research cultural aspects that interest them personally. *Prerequisite: Grade of "C-" or better in French 2 or approval of Department Chair.*

**334. FRENCH 3 HONORS YEAR GRADES 11-12**

This is a more accelerated pace in reading and writing in French with the reading selections more numerous and advanced in vocabulary and interpretive issues. See French 3 above for the general course description. *Prerequisite: Grade of "B-" or better in French 2 or approval from Department Chair.*

**341. FRENCH 4 YEAR GRADES 11-12**

This is an advanced course in French language. It exposes the student to a broad range of French writing, selected to enhance the understanding of French literature and culture. There will be a continued emphasis developing optimum proficiency in listening, speaking, reading, composition, vocabulary, spelling, grammar and critical thinking in the French language. *Prerequisite: Grade of "C-" or better in French 3 and approval of Department Chair.*

**351. AP FRENCH LANGUAGE YEAR GRADES 11-12**

This Advanced Placement French course exposes the student to third year university level French. A broad range of literature and an in-depth review of grammar are integral to this course. An advanced emphasis is placed on proficiency in listening, speaking, reading, composition, vocabulary and grammar. The AP French student is expected to take the AP French Language exam in the spring. (Additional fee required.) *Prerequisite: Grade of "B-" or better in French 3/3H/4 with consent of instructor.*

## MATHEMATICS DEPARTMENT

COURSE #	TITLE	GRADE
410.....	Pre-Algebra .....	9
411.....	Algebra 1 Honors.....	9
420.....	Algebra 1 .....	9-10
421.....	Geometry Honors.....	10
430.....	Geometry.....	10-11
431.....	Algebra 2/Trigonometry Honors.....	10-11
440.....	Algebra 2/Trigonometry .....	11-12
441.....	Pre-Calculus Honors .....	11-12
442.....	Pre-Calculus.....	11-12
443.....	Elementary Statistics .....	11-12
444.....	Trigonometry .....	11-12
452.....	AP Calculus .....	11-12

### 410. PRE-ALGEBRA

YEAR GRADE 9

This course is designed to facilitate student preparedness in pre-algebra for higher mathematics. It covers an introduction to numbers and numerals, sets, variables, addition of real numbers, solving equations and problems, inequalities and equations in two variables, basic linear graphing and factoring. Placement in this course is based on entrance examination results. Freshmen entering MDCHS who are placed in pre-algebra are required to take four years of mathematics. *Prerequisite: Performance below the 30th percentile on the HSPT in Math*

### 411. ALGEBRA 1 HONORS

YEAR GRADE 9

Algebra 1 Honors covers the same topics as Algebra 1 but includes more challenging problems and applications. Placement in this course is based on entrance examination results and requires Mathematics department chair approval/recommendation. SAT preparation is included in the curriculum. *Prerequisite: Performance above the 85th percentile on the HSPT in Math*

### 420. ALGEBRA 1

YEAR GRADE 9-10

Algebra 1 introduces the student to mathematics beyond arithmetic. It is the first course working with abstract concepts, the use of symbols other than numerals, and translating word problems into mathematical symbols. The basic topics include number sets, factoring, operations of algebraic expressions, equations of lines and their graphs, and quadratic functions and their graphs. Placement in this course is based on entrance examination results or successful completion of pre-algebra. SAT Prep is included in the curriculum.

### 421. GEOMETRY HONORS

YEAR GRADE 10

This course covers the same topics as Geometry but includes more emphasis on formal proofs and constructions and more challenging problems and applications. SAT Prep is included in the curriculum. *Prerequisite: Completion of algebra 1 with a grade of "A-" or higher, or Algebra 1 Honors with a "B-" or better, and/or teacher recommendation. Incoming freshmen must score above the 95th percentile on the HSPT in Math.*

### 430. GEOMETRY

YEAR GRADES 10-11

Geometry is a course concerned with inductive and deductive proof, angles, perpendicular and parallel lines, congruent triangles, similar polygons, circles and constructions, right and congruent triangles, areas of volumes and solids, coordinate Geometry and areas of plane figures. SAT Prep is included in the curriculum. *Prerequisite: Completion of algebra 1. Incoming freshmen must score above the 90th percentile on the HSPT in Math.*



**431. ALGEBRA 2/TRIGONOMETRY HONORS**

YEAR GRADES 10-11

This course covers the same topics as Algebra 2/Trigonometry but with more challenging problems and applications. SAT Prep is included in the curriculum. *Prerequisite: Completion of Geometry honors with a "B-" or higher, or Geometry with an "A-" or higher, and/or teacher recommendation.*

**440. ALGEBRA 2/TRIGONOMETRY**

YEAR GRADES 11-12

Algebra 2/Trigonometry is concerned with the axioms of the real number system, solving equations, relations and functions, polynomials and their graphs, the complex number system, logarithms and trigonometric functions. SAT Prep is included in the curriculum.

**441. PRE-CALCULUS HONORS**

YEAR GRADES 11-12

Pre-Calculus Honors provides a more accelerated preparation for Calculus by continuing the development begun in the Algebra courses. Practice in the topics covered in the previous courses is interspersed with more advanced topics in logarithms and exponential functions, trigonometry, vectors, polynomial functions and an introduction to limits and derivatives. *Prerequisite: Completion of Algebra 2/Trigonometry Honors with a "B-" or higher, or Algebra 2/Trigonometry with a "A-" or higher, and/or teacher recommendation.*

**442. PRE-CALCULUS**

YEAR GRADES 11-12

Pre-calculus provides preparation for calculus by continuing the development begun in the algebra courses. Practice in the topics covered in the previous courses is interspersed with more advanced topics in logarithms and exponential functions, trigonometry, vectors, polynomial functions and an introduction to limits and derivatives. *Prerequisite: Completion of Algebra 2/Trigonometry Honors or Algebra 2/Trigonometry and/or teacher recommendation.*

**443. ELEMENTARY STATISTIC**

SEMESTER GRADES 11- 12

Elementary Statistics is a one semester course for students who have completed Algebra2/Trig. It is designed for those looking for a challenge other than pre-Calculus. Elementary Statistics provides a foundation for those especially interested in future careers in business, physical, biological or social sciences and education. This course will provide the necessary foundation for that success. To prepare the student for a college course in elementary statistics. Students will be introduced to sampling methods, measures of central tendency, probability, distribution, experimental design, confidence intervals, and hypothesis testing

**444. TRIGONOMETRY**

SEMESTER GRADES 11- 12

Trigonometry is a one semester course for students who have completed Algebra2/Trig. It is designed for those looking for a challenge other than pre-Calculus. Trigonometry will explore trigonometric equations, Law of Sines, Law of Cosines, vectors, complex solutions, trigonometric identities, polar graphs, and graphs of trigonometric functions

**452. AP CALCULUS**

YEAR GRADE 12

Advanced Placement Calculus is a rigorous, in-depth course which includes functions and their inverses, limits, continuity, derivatives of algebraic, transcendental and trigonometric functions, anti-derivatives and definite integrals, and applications of both derivatives and integrals. *Prerequisites: Completion of Pre-Calculus Honors with a "B-" or higher, Pre-Calculus with an "A-" or higher, and teacher recommendation.*

## SCIENCE DEPARTMENT

COURSE #	TITLE	GRADE
515.....	Physical Science .....	9
520.....	Biology.....	9-10
521 .....	Biology Honors.....	9-10
529.....	Chemistry in Community .....	10-12
530.....	Chemistry.....	10-12
532.....	Anatomy & Physiology .....	11-12
533.....	AP Biology .....	11-12
534.....	AP Chemistry .....	11-12
540.....	Physics.....	11-12
545.....	AP Physics 1 .....	11-12
544.....	Science Academy 1 .....	10-12
546.....	Science Academy 2.....	10-12
547.....	Science Academy 3.....	10-12
550.....	AP Environmental Science .....	11-12
551.....	Forensic Science .....	12
552.....	Introduction to Environmental Studies.....	12

**515. PHYSICAL SCIENCE**

YEAR GRADE 9

This course is an introductory-level survey course in the Physical Sciences aimed at first year high school students. Topics that may be covered include the nature of science; forces and motion; matter, work and energy; electricity and magnetism; waves and optics; matter and changes in matter; and earth or space science. This course will be a laboratory-based class, which will emphasize the areas of Chemistry, Physics and Earth / Space science. *Prerequisites: At least grade level performance and competency on the HSPT in English and Mathematics and must be enrolled in at least Algebra 1.*

**520. BIOLOGY**

YEAR GRADES 9-10

This course is a general survey of Biology. It includes a study of cell anatomy and physiology, genetics, taxonomy and surveys the major biological kingdoms. Students engage in a variety of laboratory activities to enhance, discover, and confirm their knowledge of Biology. *Prerequisites: 10th Grade – Successful completion of both semesters of Physical Science and Algebra 1 with a “C-” or higher. 9th Grade – Performance above the 85th percentile on the HSPT in both English and Math.*

**521. HONORS BIOLOGY**

YEAR GRADES 9-10

Biology Honors provides an accelerated survey of general Biology. It includes all of the topics covered in the Biology course, as well as protein synthesis, advanced genetics, and statistical methods as applicable to the biological sciences. *Prerequisites: 10th Grade – Recommendation from Physical Science teacher, completion of both semesters of Physical Science with an “A-”, and concurrent enrollment in Honors Geometry. 9th Grade – Performance above the 95th percentile on the HSPT in both English and Math and concurrent enrollment in Honors Algebra 1.*

**529. CHEMISTRY IN THE COMMUNITY**

Year Grades 10-12

This is a general survey course in Chemistry designed for students who are not sufficiently advanced in mathematics to undertake a more traditional course. It is a laboratory-based class which fulfills the state requirement for a Chemistry course at the high school level. It is similar to the traditional Chemistry course in its emphasis on laboratories, but develops chemistry principles through a thematic approach related to practical topics and the environment. *Prerequisites: Completion of both semesters of Biology with a “C” or higher and concurrent enrollment in Geometry required*

**530. CHEMISTRY**

YEAR GRADES 10-12

This is a general, college preparatory Chemistry course designed for students with a sufficient background in mathematics. Topics covered include the nature and behavior of matter, atomic theory, the periodic law, the gas laws, the mole, chemical reactions and equilibrium, and acids and bases. Students engage in a variety of laboratory activities with an emphasis on problem solving and the scientific method. *Prerequisites: Recommendation from Biology teacher; completion of both semesters of Algebra 1 and of Geometry, with a “C-” or higher; and concurrent enrollment in Algebra 2/Trigonometry (or Honors Geometry for 10th graders.)*

**532. ANATOMY & PHYSIOLOGY**

YEAR GRADE 11-12

Anatomy and Physiology is an advanced, college preparatory elective course, equivalent to a first year college level course, focused on human biological structure and function. Topics covered include all of the human body systems, in addition to immunology and histology. There is a major laboratory component to this course and students will be tested through laboratory practical examinations.

*Prerequisites: Recommendation from Chemistry teacher, completion of both Biology and Chemistry (full year of each), with a “B-” or higher (for Chemistry in Context students, must have teacher recommendation and “A-” grades for both semesters), and concurrent enrollment in Algebra 2/Trigonometry, with successful completion of previous math classes with a “B-” or higher.*

**533. AP BIOLOGY**

YEAR GRADE 11-12

Advanced Placement Biology is an advanced elective course designed to be the equivalent of a college-level introductory Biology course. The intent of the course is to expose students to higher-level biological principles, concepts, and skills and to allow them the opportunity to apply their knowledge to real-life applications. Following an accelerated curriculum, the course content adds breadth and depth to previous science classes, namely Honors Biology and Honors Chemistry; the course content, however, is largely determined by the College Board, in preparation for the national AP exam in May. Through rigorous studies, laboratory activities and projects, students are expected to learn not by memorization of facts, but through content and concept applications.

*\*Please note that this course offering is dependent on enrollment. Prerequisites: Recommendation from previous Science teachers and successful completion of Honors Biology and Honors Chemistry, with a “B-” or higher. Teacher approval may be needed after probationary period of first two weeks.*

**534. AP CHEMISTRY**

YEAR GRADE 11-12

Advanced Placement Chemistry is an advanced elective course designed to be the equivalent of a college-level introductory Chemistry course. The intent of the course is to expose students to higher-level Chemistry principles, concepts, and skills and to allow them the opportunity to apply their knowledge to real-life applications. Following an accelerated curriculum, the course content is largely determined by the College Board and adds breadth and depth to previous science classes, namely Honors Chemistry. Topics covered are aimed at preparing students effectively for the national AP exam in May. Rigorous laboratory work is used to enhance student learning throughout the course. *\*Please note that this course offering is dependent on enrollment.*

*Prerequisites: Recommendation from previous Science teachers; successful completion of Biology (Honors preferred) and Honors Chemistry, with a “B-” or higher; successful completion of Algebra 2/Trigonometry Honors preferred with a “B-” or higher; and concurrent enrollment in Pre-Calculus required.*

**540. PHYSICS**

YEAR GRADE 11-12

Physics is an introductory, college preparatory elective course, equivalent to a lower level college course in the subject matter. The course focuses mainly on classical Newtonian mechanics and covers a variety of topics, including kinematics, dynamics, optics, electricity, magnetism, wave properties, and atomic physics if time permits. Throughout the course, students will engage in a variety of laboratory and hands-on activities in order to demonstrate, reinforce and clarify basic Physics concepts and principles.

*Prerequisites: Recommendation from Chemistry teacher, successful completion of both semesters of Chemistry with a “B-” or higher, or requires Physics teacher and Science Dept. Chair approval, and concurrent enrollment in Pre-Calculus required.*

**545. AP PHYSICS 1**

YEAR GRADE 11-12

Advanced Placement Physics is an advanced elective course designed to be the equivalent of a college-level introductory Physics course. The intent of the course is to expose students to higher-level Physics principles, concepts, and skills and to allow them the opportunity to apply their knowledge to real-life applications. Following an accelerated curriculum, the course content is largely determined by the College Board and covers such topics as Newtonian mechanics, electricity, magnetism, thermodynamics, waves and optics, and atomic physics. Laboratory work is used to enhance student learning throughout the course. *Prerequisites: Recommendation of Chemistry teacher and/or Science Dept. Chair; successful completion of Biology (Honors preferred), Chemistry (Honors preferred) and Honors Algebra 2/Trigonometry, with a “B-” or higher; and concurrent enrollment in Pre-Calculus Honors.*

**544. SCIENCE ACADEMY I**

YEAR GRADES 10-11

This is an applied science course for first year students in the Science Academy. Students will learn new material during the process of research and project based learning. Students will be introduced to the methods and technologies of meteorology, environmental chemistry, biomechanics, physics, oceanography, engineering and health sciences, and will use the scientific method to observe, hypothesize about and explore the natural world. *Prerequisites: Admission into the Science Academy. Please see page 8 for details.*

**546. SCIENCE ACADEMY 2**

YEAR GRADES 11-12

This is the second course in the sequence designed for juniors and seniors in the Science Academy. Students will initiate long term research projects that address “real world” needs. Students will be introduced to the methods and technologies of aquaculture, ecology, microbiology, botany, forensic science, cyber security, biomechanics, physiology, engineering, microbiology, and health sciences. For science competitions and applied science projects, students will learn and follow the engineering design process. Finally, students will focus on developing resumes and interview skills, so they may be competitive for summer internships opportunities. *Prerequisites: Admission into the Science Academy. Please see page 8 for details.*

**547. SCIENCE ACADEMY 3**

YEAR GRADE 12

This is the third course in the sequence for seniors in the Science Academy. Students will understand the importance of Science, Technology, Engineering and Mathematics (STEM) to the San Diego region and to our global economy. They will model the practices of theoretical research and applied science by informing peers about their summer internship. Students will learn to develop effective explanations, construct and defend reasoned arguments, and respond appropriately to critical comments. Students will continue to focus on developing career goals, resumes and technical writing, so they may be competitive for college admissions and scholarships in STEM career fields. *Please see page 8 for details.*

**550. AP ENVIRONMENTAL SCIENCE**

YEAR GRADE 11-12

Advanced Placement Environmental Science is a course designed to be the equivalent of a one semester, introductory college course in environmental science. It integrates a wide variety of science disciplines including geology, biology, chemistry, and geography. The course content is designated by the College Board. Students who complete this course will learn scientific principles, concepts and methodologies required to understand the interrelationships of the natural world and analyze and identify environmental problems, both natural and man-made. This course has a significant laboratory component, conducted both in and out of the classroom, which is aimed at enhancing student learning and achievement. *Prerequisites: Recommendation by previous Science teachers and successful completion of a Biology and a Chemistry course (Biology/Chemistry require “A-” or higher, while Honors Biology/Chemistry require a “B-” or higher).*

**551. FORENSIC SCIENCE**

SEMESTER GRADE 12

Forensic Science is an introductory-level, semester-long elective course aimed at the exploration of a wide range of scientific topics and principles related to forensics and crime scene investigation. The focus of the course will be to provide students with the basics of some of the specialized fields of forensic science, the principles of science and technology upon which they are based (Biology, Chemistry and Physics will all be emphasized), and the application of these principles to various analyses of crime scene evidence. This course will hopefully make science real for the CSI generation, while also introducing students to the many career choices related to forensics. The fundamental objective of this semester course will be to teach a foundation on the subject in order to solve specific multidisciplinary problems using the scientific method. *Prerequisites: Completion of a Biology and a Chemistry course.*

**552. INTRODUCTION TO ENVIRONMENTAL STUDIES**

SEMESTER GRADE 12

Introduction to Environmental Studies is an introductory-level, semester-long elective course designed to give students a basic overview to the environment and all things related to the natural world. While the course will be quite interdisciplinary (involving ecology, biology, geology, climatology, chemistry, physics, politics, economics, and ethics, to name a few), this course is aimed only to provide a foundation to the subject matter. The concepts and course material covered in this semester course will be consistently reinforced by appropriate laboratory activities, mathematics, historical perspectives, and everyday applications. *Prerequisites: Completion of a Biology and a Chemistry course.*

## SOCIAL SCIENCE DEPARTMENT

COURSE #	TITLE	GRADE
610.....	World Cultures.....	9
611.....	World Cultures Honors .....	9
630.....	United States History .....	11
631.....	AP United States History.....	11
641.....	AP American Government .....	12
642.....	AP European History .....	10-12
645.....	Microeconomics .....	11-12
651.....	U.S. Government.....	12
652.....	Economics .....	12
840.....	Psychology.....	11-12

### 610. WORLD CULTURES

YEAR GRADE 9

World Cultures is the study of the origins, development and history of major civilizations from prehistoric times to today. The geographic, religious, economic, scientific, cultural, social and political factors influencing these civilizations are examined.

### 611. WORLD CULTURES HONORS

YEAR GRADE 9

World Cultures Honors is an accelerated examination of the topics covered in the regular World Cultures course. Emphasis is placed on critical thinking and refined reading and writing skills. The relationship between current events and historical background information are analyzed. This class requires extensive reading and prepares students for advanced high school history courses.

### 630. UNITED STATES HISTORY

YEAR GRADE 11

United States History helps students understand the political, economic and social development of our nation. The first semester emphasizes the visions and realities experienced by Americans from the Colonial Period through the 19th century. The second semester focuses on events throughout the 20th century with an emphasis on setting priorities for the American of the future. The influence of geographical factors such as climate, landforms and physical regions are discussed in this course.

### 631. AP UNITED STATES HISTORY

YEAR GRADE 11

Advanced Placement United States History is a college level program of studies in American History focusing on the components, methods, problems and consequences facing the United States from colonization to the present day. College level texts and primary source documents are used, providing students with the analytical skills and factual knowledge necessary to deal critically with topics significant to American history. Advanced Placement American History requires extensive reading and study. All students enrolled in the class take the Advanced Placement exam in American History in May (an additional fee is required.) *Prerequisite: Grade of "B-" or better in all previous history and English classes and consent of instructor and Department Chair.*

### 641. AP AMERICAN GOVERNMENT

YEAR GRADE 12

Advanced Placement American Government is a survey course designed to provide students with the analytic skills and factual knowledge equivalent to an introductory college course in Political Science or American Government. The students will trace the development of our Government from the Constitution through today's major civil rights battles. They will examine in-depth the three branches of our Government as well as each individual's role in Government. Students will take the Advanced Placement exam in American Government in May (an additional fee is required.) *Prerequisite: "B-" or higher in AP U.S. History or "A-" or higher in U.S. History, "B-" or higher in English 3 Honors or "A-" or higher in English 3, and approval of Instructor.*

**642. AP EUROPEAN HISTORY**

YEAR GRADES 10-12

Advanced Placement European History is a college level course with a college text with extensive additional readings in primary and secondary sources. The course begins with the origins of the Italian Renaissance in the 1300's and ends with the collapse of the Soviet Union in the 1990's. Teaching will be mostly by the lecture/discussion technique. Chapter exams will be in the nature of the national objective/essay Advanced Placement Exam given in May. Students will have the opportunity to analyze various historical evidence, evaluate significant historical concepts and trends, and undertake systematic scholarly research. *Prerequisite: Grade of "B-" or better in World Cultures and English, the successful completion of an essay exam showing an ability to think and write critically, and the approval of the Department Chair.*

**645. MICROECONOMICS**

SEMESTER GRADES 11-12

Microeconomics is a one semester course with emphasis on how individuals, families and organizations make decisions to allocate their resources, how these decisions affect the supply and demand for goods and services, which determines prices which, in turn, determines the supply and demand of goods and services.

**651. U.S. GOVERNMENT**

YEAR GRADE 12

This is a one semester class which surveys the functions of the United States Government. Emphasis is placed on the organization and function of foreign, domestic and economic policies and their problems are also studied.

**652. ECONOMICS**

YEAR GRADE 12

Economics provides the student with the basic concepts of the economic systems and institutions of the nation and the world. In order to make sensible decisions on a variety of economic principles and concepts, students will develop skills based on the knowledge of fundamental economics, comparative economic systems, micro and macro economics.

**840. PSYCHOLOGY**

SEMESTER GRADES 11-12

Psychology is a survey course designed to introduce the basic concepts of the major theories of human behavior. Human development, perception, motivation, learning and intelligence, abnormal behavior and personality are some of the topics covered. The scientific method is used to study the principles of psychology as a science, as well as an emphasis on self-awareness. (*Elective class only.*)

## VISUAL & PERFORMING ARTS DEPARTMENT

COURSE #	TITLE	GRADE
701.....	Drama.....	9-12
730.....	Art 1-2-3.....	10-12
731.....	Ceramics 3.....	10-12
714.....	Choral Music.....	9-12
715.....	Guitar.....	10-12
725.....	Guitar 2.....	10-12
717.....	Music Composition.....	9-12
716.....	Computer Graphics.....	10-12
720.....	Piano.....	10-12
732.....	AP History of Art and Architecture.....	10-12
740.....	Studio Art.....	10-12

### 701. DRAMA

YEAR GRADES 9-12

This elective course provides theatrical experience in voice, movement, acting, directing, set design, costumes and other technical aspects of theater production. In addition, the course stresses drama appreciation, including analysis and critiquing of productions, and knowledge of drama history from its beginnings to the present. Emphasis is placed on student's artistic perception, creative expression and aesthetic valuing, as well as comprehending the historical and cultural context of theater. Through readings, writing essays and scripts, design, acting and lecture, students will have an understanding of the history of drama and the dramatic profession.

### 730. ART 1-2-3

YEAR GRADES 10-12

Art is a survey course involving the elements and principles of perspective drawing techniques using live models, copying the work of master artists and original work. The class includes work in pencil, charcoal, ink, pastels and acrylic paint. Exhibition of work is expected. Students are critiqued individually and oral presentations/essays are required, as well as art work.

### 731. CERAMICS 3

YEAR GRADES 10-12

Students learn basic techniques such as pinch, slab and coil by making various functional pieces of pottery. They learn surface decoration and glazing. Drawings of pottery and sculpture from ancient cultures are studied. Students receive demonstrations, lectures and critiques, including beginning wheel work. Students learn coil building on a larger scale, carved sculpture and slab technique, surface decoration and glazing. They are expected to use some of the art from ancient cultures as inspiration. Students learn to throw several types of pots on the wheel.

### 714. CHORAL MUSIC

SEMESTER GRADES 9-12

Students learn the art of solo and choral singing. They also study choral harmony, music notation, intonation, diction, vocalization exercises and vocal repertoire. Two performances per semester are required; one choral concert and one vocal recital including music from the contemporary and classical repertoire. Two consecutive semesters will fulfill the Visual & Performing Arts Department requirement.

### 715. GUITAR I

YEAR GRADES 10-12

Guitar is an introductory course on learning the basics of playing this instrument. It is a one year course which will fulfill the Visual & Performing Arts Department requirement for graduation.

**725. GUITAR II**

YEAR GRADES 10-12

Guitar II is a continuation of Guitar I for the beginner-intermediate student. Music reading is emphasized and developed. Chords and progressions are style-based. Composition and improvisation is introduced. Ensemble work and repertoire prepares the student for the performance.

**717. MUSIC COMPOSITION**

YEAR GRADES 10-12

Students study the cultures of the world through music. They learn about different musical styles and periods that have evolved throughout history. The foundations of Western Classical music from the Renaissance through the Twentieth Century will be presented through lecture/discussion and audio presentations. Topics in music theory are meter, notation, rhythm, pitch, tonality, key signature, harmony and jazz improvisation. *Two consecutive semesters will fulfill the Visual & Performing Arts Department requirement.*

**716. COMPUTER GRAPHICS**

YEAR GRADES 10-12

Graphic Design is a course for students who are interested in pursuing dynamic concepts and learning how to develop them into the business world by utilizing the computer through software such as Adobe Photoshop, Adobe InDesign and Adobe Illustrator. Students will develop an understanding of the elements and principles of art and explore the difficulties in how to maintain those standards by completing numerous projects. Students will develop basic skills in how to create design from simple sketches to final presentation quality. Students will respond to and judge design through their own knowledge of art and how they believe the concepts could be used in the corporate world. In addition, students will study and research the development of design through cultural and historical context. Students will then relate those experiences and knowledge into their own life experiences and design creations. *Recommended prerequisite: Art.*

**720. PIANO**

GRADES 10-12

Students will receive an introduction to music literacy, theory and multi-cultural, historical context for the piano. Students will learn keyboard fundamentals: use of independent and coordinated hands with good posture and technique; the reading of music notation on two staves (the "grand staff"); rhythmic and pitch notation, chord symbols, dynamics, style, articulation and phrasing. They will perform technique exercises and solo piano literature of varying difficulty levels. Students will be expected to critique and evaluate their own performance. At the end of the course, students will be able to read music and understand the connection of the printed material to musical keyboard performance.

**732. AP HISTORY OF ART & ARCHITECTURE**

YEAR GRADES 10-12

This one year Advanced Placement course has the same requirements as a college survey course in art history. It is a comprehensive course that combines drawing, painting, architecture, sculpture and other forms of art in a diverse historical and cultural world-wide context from the Classical World of the East and the West to the modern 21st Century. Students will be expected to objectively identify and write comprehensive essay exam answers on extensive works of art, the artist, the various schools and/or stylistic characteristics of that historical period and their collective impact on our world-wide civilization. *Prerequisite: "B-" or higher in World Cultures Honors or "A-" or higher in World Cultures, and the consent of the Instructor.*

**740. STUDIO ART**

GRADES 10-12

Studio Art explores the principles of design concepts through assignments and projects in various two-dimensional and three dimensional media, as well as the expression of ideas and feelings through art. The course will build upon prior art knowledge, going into depth with creative expression, cultural context, artistic perceptions, and aesthetic valuing. The course will expose students to various art media including: drawing, painting, arts history, and mixed media. In addition, students will learn new techniques attributed to the media. Students learn and apply skills through experimentation and refinement of new techniques, and develop personal preferences from observation and participation.



## PHYSICAL EDUCATION DEPARTMENT

COURSE #	TITLE	GRADE
910.....	Physical Education/Health Girls .....	9-12
911.....	Physical Education/Health Boys .....	9-12
913.....	Freshman Physical Education Football .....	9
951.....	Football Physical Education (Fall only) .....	9-12
961 .....	Introduction to Dance.....	10-12
914/915. ....	Swim PE.....	10-12
952.....	Team Participation.....	9-12

**910. PHYSICAL EDUCATION/HEALTH GIRLS** **SEMESTER GRADES 9-12**

*Required Course.* This is a beginning course designed to target fitness, health and wellness for life and life-long physical activities through a variety of fitness activities, recreational activities, individual and team sports, dance and lectures. The activities are as follows: power walking, jogging, Pilates, aerobics, circuit training, dance, yoga and strength training. Recreational sports include volley-tennis, volleyball, tennis, soccer, badminton and basketball. Health, fitness and wellness topics will be covered during lectures.

**911. PHYSICAL EDUCATION/HEALTH BOYS** **SEMESTER GRADES 9-12**

*Required Course.* This is a beginning course designed to target fitness, health and wellness through a variety of fitness activities, recreational activities, individual and team sports, and lectures. Activities include strength training, volley-tennis, volleyball, tennis, soccer, badminton, basketball, flag football, and ultimate. Health, fitness and wellness topics will be covered during lectures.

**913. FRESHMAN PHYSICAL EDUCATION FOOTBALL** **YEAR GRADE 9**

This course is for members of the freshmen football team to help them improve in their technique and strength training specifically to enhance their skills necessary in playing football.

**951. FOOTBALL PHYSICAL EDUCATION** **SEMESTER GRADES 9-12**

This course is given in the fall semester only. It is specifically geared to technique and strength training in the game of football. *This course may be taken in lieu of a regular physical education class and must be recommended by the football coach only.*

**961. INTRODUCTION TO DANCE** **YEAR GRADES 10-12**

This is a Beginning Dance Class where students will learn a variety of dances in Jazz, Ballroom, Aerobics, Hip Hop, Modern and World Dances. This is a technique course using a broad spectrum of dance vocabulary. Through creative movement improvisation students will develop new movement vocabularies. Students will then compose and choreograph Dances. Presentations in class will be held as a part of the course. Participation is required.

**914/915. SWIM PE** **GRADES 10-12**

*Beginning:* This course includes instruction in aquatic skills in the following: rhythmic breathing, floating, kicking, front and back crawl, jumping and diving, in addition to basic water safety.

*Intermediate:* This course includes instruction in the following four competitive strokes: freestyle, backstroke, breaststroke, butterfly and two non-competitive strokes – elementary backstroke, side stroke. Additionally, starts, turns, treading and basic water safety skills will be taught. Knowledge of basic water polo rules, skills and game philosophy.

**ALTERNATIVE WAYS TO GAIN COURSE CREDIT:**

**952. TEAM PARTICIPATION**

A student may earn five P.E. units for participation on an interscholastic team (including stats personnel and managers) or cheerleading for one full season. The credit is approved through the Principal's office.