



MALDEN CATHOLIC

The Codivisional High School

**Girls Program
Course Catalog
2020 – 2021**

GENERAL INFORMATION

COURSE SCHEDULING PROCESS

February – March 2020

- In early February, the 2020-2021 Course Catalog will be posted on the MC website and emailed to all parents and students.
- School counselors will meet with all students and review the course selection process.
- Faculty will provide their recommendations for required courses and electives.
- Department Chairs will review faculty recommendations and make necessary adjustments.
- School counselors will meet individually with students to review required course recommendations and to discuss and select choices for elective courses.
- Preliminary course selections will be emailed to parents. Parents will be asked to review the preliminary course selections and acknowledge receipt of the course selections via an online form.

June – July 2020

- Final Reports Cards are emailed to Parents on June 11, 2020.
- Following completion of the school year, review of final academic performance, and assessment of class enrollments, final course assignments will be made.
- Final Schedules will be emailed to Parents by 3rd week of July.
- School on-line Bookstore will open following the emailing of schedules.

WHOM TO CONTACT – COURSE REQUEST QUESTIONS

Inquiries about placement should be discussed initially with current teacher, next with the school counselor, then Department Chair, and finally with the School Principal.

Students Served	School Counselor	Email	Office Phone
All Grades	Mr. Matthew Lee-Masiello	leemasiellom@maldencatholic.org	781.475.5325
All Grades	Mrs. Caitlyn Oates (Director)	oatesc@maldencatholic.org	781.475.5324
All Grades	Ms. Kelly Scimone	scimonek@maldencatholic.org	781.475.5326

Department	Chair	Email	Office Phone
English	Ms. Angela Lee	leea@maldencatholic.org	781.475.5366
Foreign Languages	Mrs. Marie Crotty	crottym@maldencatholic.org	781.475.5355
Social Studies	Mr. Timothy Endicott	endicottt@maldencatholic.org	781.475.5381
STEM (Science, Technology & Engineering, Math)	Dr. Diane Perito, PhD	peritod@maldencatholic.org	781.475.5382
Theology	Mr. Dustin Batista.	batistad@maldencatholic.org	781.475.5388

Role	Administrator	Email	Office Phone
Principal	Ms. Lisa Cenca	cencal@maldencatholic.org	781.475.5370

GENERAL INFORMATION**ACADEMIC REGULATIONS [EXERPT FROM THE STUDENT/PARENT HANDBOOK]**

The Principal is responsible for the daily administration of the academic program at Malden Catholic. The following regulations are subject to administrative interpretation:

1. Graduation Requirements:

During her four years at Malden Catholic, a student must fulfill the following credit requirements:

- Grade 9 7 credits
- Grade 10 7 credits
- Grade 11 7 credits (6 credits if taking 3 or more A.P. courses).
- Grade 12 7 credits (6 credits if taking 3 or more A.P. courses).

Students must complete the following course of studies:

- Theology 4 years
- English 4 years
- Mathematics 4 years
- Social Studies 3 years (Grades 9, 10, 11)
- Science 3 years (1 each in Biology, Chemistry and Physical Science/Physics)
- Foreign Language 2 years (Intro to Latin semester course required)
- Arts 1 year ⁽¹⁾ ⁽³⁾
- Electives 5 years
- P.E./Health 1 year ⁽¹⁾ ⁽²⁾
- Leadership 1 year ⁽¹⁾

⁽¹⁾ Grade 9 Arts and Leadership Courses and all P.E./Health courses will be graded on a P/F basis and are not included in consideration of Honor Roll, cumulative average, nor National Honor Society eligibility.

⁽²⁾ Grade 9 and Grade 10 students have a school requirement to be active participants in two teams per year at Malden Catholic. These teams may be athletic or arts-based. In order to receive academic and graduation credit for participation in a team, the student's name must be listed on the team roster at the end of the season and must have the coach's signature verifying full participation in the team. If a student quits a team or is removed from a team due to grade ineligibility or discipline issues, the student will not receive credit for participation regardless of the length of time she played during the season. This rule will be strictly enforced. However, if the student is injured during the season, and remains part of the team in a supportive role, she will be given credit. Final credit approval in cases where there is disputation will be made by the principal with the assistance of the athletic director and the coach or moderator. Each season of participation will be worth $\frac{1}{4}$ credit of health and wellness. Four seasons will be equal to a full credit.

⁽³⁾ Arts electives may be waived in lieu of educational support courses.

Ordinarily, students who fail three or more full-year courses will not be promoted and will be asked to withdraw from Malden Catholic. Administrators will also review the academic and disciplinary records of students with two failing grades to consider whether such students should continue in the program at Malden Catholic. To graduate, seniors must pass all subjects including electives, regardless of the number of credits, and fulfill all other obligations to the school.

If a student has failures, before returning to Malden Catholic in the fall, the student must make up all failed courses in an approved summer school or tutoring program. These students will be on academic probation upon their return to Malden Catholic. Students who have failing grades and who show insufficient effort and progress during the school year may be asked to withdraw at any time.

GENERAL INFORMATION**ACADEMIC REGULATIONS [CONTINUED]**

2. **Levels of Instruction:** Every effort is made to provide students with courses commensurate with their ability, intelligence, and record of achievement. Accordingly, students, rather than be limited to a single track, may be enrolled in courses with varying levels of difficulty, as follows:
 - A. **Advanced Placement:** College-level courses prescribed and audited by The College Board, following College Board-approved curriculum, and requiring an A.P. Test, taken in place of final examination. Test fee is billed mid-year, separately from tuition.
 - B. **Honors:** Typically for students whose Entrance Test profiles range from the 70th percentile upward and who, as upperclassmen, have demonstrated superior performance, Honors courses presume essential skills mastery and move at a faster pace and with greater depth than a CP courses.
 - C. **College Preparatory:** For students whose Entrance Test profiles range from the 69th percentile downward. College Preparatory courses teach fundamental understandings required for college success.

Some courses do not distinguish levels such as Theology and Arts based electives.

Note: A student wishing to move to a higher level at the end of the year should have a minimum average of 93% in her current level and department approval. Students not maintaining a 76% average in a given course or students in the lowest 10% of any course may be placed in a lower section.

3. **Course Changes:** The Principal oversees academic issues for students. The Principal governs scheduling for students in consultation with teachers. The Principal makes every effort to provide a schedule that meets the student's needs; however, should the occasion arise to review a schedule, the process is as follows:
 - A. **Student-Initiated:**
 1. Student approaches teacher with her concerns
 2. Teacher discusses student's perception that a change is necessary, asking to what extent the student has employed the ordinary tactics available for good performance, e.g., proper study time, good study habits, use of extra help.
 3. Teacher asks student to see her school counselor who will navigate the remaining process with administration and parents.
 4. The Principal becomes involved should there be any issue of concern.
 - B. **Parent-Initiated:**
 1. Parent contacts teacher about concerns. Teacher discusses student's performance and extent to which the student has employed the ordinary tactics recommended for good performance, e.g. proper study time, good study habits, the use of extra help. If parent approaches the Principal, parent is referred to the teacher for preliminary discussion.
 2. Parent wishing to continue the process asks the student to see the school counselor and the process continues as outlined in numbers 2-4 above (Student Initiated).

Note: Course changes after the start of the year are exceptional. Dislike of a teacher or of teaching techniques is not sufficient reason for a change of class. Requests for a particular teacher cannot be honored.

GENERAL INFORMATION**STEM CERTIFICATE REQUIREMENTS**

In preparing all students for the global workforce, the integration of the STEM Certificate is to encourage student participation in science, technology, engineering and math (STEM) courses and build their interest in STEM degrees and careers.

There are two tracks available to earn a STEM Certificate: **Standard** and **AP/Honors**.

Students pursuing a STEM Certificate must complete the following course of studies:

Mathematics.....	4 years (including Pre-Calculus)
Science	4 years (including 1 each in Biology, Chemistry and Physics)
STEM Electives.....	3 years

Extracurricular Requirements:

- Active participation in a STEM-based club (1 per year), for a total of three (3) years.
- Participation in STEM Innovation Fair for a total of three (3) years.

Important Notes:

- Standard and AP/Honors tracks: Students must maintain an unweighted GPA average of 85% for all STEM Courses to earn the STEM certificate.
- Students who successfully complete the AP/Honors track can also apply for “[AP + PLTW Student Achievement](#)” recognition through the College Board. To earn this achievement, students must complete three courses in a pathway - one AP course; one PLTW course; and a third course, either AP or PLTW - and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End-of-Course (EoC) Assessment(s).

AP Courses

2620 AP Biology
2640 AP Chemistry
2610 AP Physics 1
2650 AP Physics 2
2840 AP Calculus BC
2841 AP Calculus AB

PLTW Courses

2731 PLTW: Intro to Engineering Design
2732 PLTW: Principles of Engineering
2733 PLTW: Environmental Sustainability

- The “AP + PLTW Student Achievement” is awarded once per year in the fall and students can apply online at <https://www.apandpltw.org/>. Applications are usually due in June.

ELECTIVE COURSES OFFERED

Department	Course # & Description	Level (see p3)	For STEM Track	Credit Hours	Course Length	Grade Level			
						9	10	11	12
English	2291 VHS – Creative Writing	Hon	--	0.5	Semester			✓	✓
	2292 VHS – Film & Literature	CP	--	0.5	Semester			✓	✓
Foreign Language	2334 Latin 3	Hon	--	1.0	Full Year			✓	✓
	2340 AP Spanish Language & Culture	AP	--	1.0	Full Year				✓
	2350 AP Latin	AP	--	1.0	Full Year				✓
Social Studies	2450 AP U.S. Government & Politics	AP	--	1.0	Full Year				✓
	2453 U.S. Government & Current Issues	CP	--	0.5	Semester				✓
	2455 Native American Studies	CP	--	0.5	Semester				✓
	2456 Philosophy	Hon	--	0.5	Semester				✓
	2490 VHS AP Human Geography	AP	--	1.0	Full Year			✓	✓
	2491 VHS - Criminology	CP	--	0.5	Semester			✓	✓
	2492 VHS – Psychology of Crime	CP	--	0.5	Semester			✓	✓
	2493 VHS – The Holocaust	CP	--	0.5	Semester			✓	✓
Arts	2501 Drama	-	--	0.5	Semester	✓			
	2511 Drama: The Musical	Hon	--	1.0	Full Year		✓	✓	✓
	2502 Speech	-	--	0.5	Semester	✓			
	2512 Debate	Hon	--	0.5	Semester		✓	✓	✓
	2503 Introduction to Dance	-	--	0.5	Semester	✓			
	2513 Jazz Dance	Hon	--	0.5	Semester		✓	✓	✓
	2514 Contemporary Dance	Hon	--	0.5	Semester		✓	✓	✓
	2541 Studio Art 1	-	--	0.5	Semester	✓			
	2542 Studio Art 2	Hon	--	0.5	Semester		✓	✓	✓
	2551 Digital Art	Hon	Standard, AP/Honors	0.5	Semester		✓	✓	✓
	2581 Choir	-	--	1.0	Full Year	✓			
	2582 Advanced Choir	Hon	--				✓	✓	✓
	1590 VHS - AP Music Theory	AP	--	1.0	Full Year			✓	✓
Business	2591 VHS - Entrepreneurship	CP	--	0.5	Semester			✓	✓
	2592 VHS-Investing in the Stock Market	CP	--	0.5	Semester			✓	✓
Science	2610 AP Physics 1	AP	AP/Honors	1.0	Full Year				✓
	2612 Physics 1	Hon	Standard, AP/Honors	1.0	Full Year				✓
	2614 Physics 1	CP	Standard, AP/Honors	1.0	Full Year				✓
	2650 AP Physics 2	AP	AP/Honors	1.0	Full Year				✓
	2640 AP Chemistry	AP	AP/Honors	1.0	Full Year				✓
	2671 Anatomy & Physiology	Hon	Standard, AP/Honors	1.0	Full Year				✓
	2672 Zoology	Hon	Standard, AP/Honors	1.0	Full Year				✓
	2690 VHS - AP Environmental Science	AP	AP/Honors	1.0	Full Year			✓	✓
	2691 VHS - Oceanography	Hon	Standard, AP/Honors	0.5	Semester			✓	✓
	2692 VHS - Astronomy	CP	Standard, AP/Honors	0.5	Semester			✓	✓
	2693 VHS - Forensic Science	CP	Standard, AP/Honors	0.5	Semester			✓	✓

ELECTIVE COURSES OFFERED (Cont.)									
Department	Course # & Description	Level (see p3)	For STEM Track	Credit Hours	Course Length	Grade Level			
						9	10	11	12
Technology & Engineering	2715 Exploring Computer Science	Hon	Standard, AP/Honors	0.5	Semester		✓	✓	✓
	2721 Web Design	Hon	Standard, AP/Honors	0.5	Semester		✓	✓	✓
	2731 PLTW: Intro to Engineering Design	Hon	Standard, AP/Honors	1.0	Full Year		✓	✓	✓
	2732 PLTW: Principles of Engineering	Hon	Standard, AP/Honors	1.0	Full Year			✓	✓
	2733 PLTW: Environmental Sustainability	Hon	Standard, AP/Honors	1.0	Full Year				✓
	2751 Independent STEM Research	Hon	Standard, AP/Honors	0.5	1 st Semester		✓	✓	✓
	2791 VHS - Video Game Design	CP	Standard, AP/Honors	0.5	Semester			✓	✓
Math	2890 VHS - AP Statistics	AP	AP/Honors	1.0	Full Year			✓	✓
	2891 VHS - Differential Calculus	Hon	Standard, AP/Honors	0.5	Semester			✓	✓
	2892 VHS - Number Theory	Hon	Standard, AP/Honors	0.5	Semester			✓	✓
PE/Health	2903 Physical Education	-	-	0.5	Semester			✓	✓

VIRTUAL HIGH SCHOOL

VIRTUAL ELECTIVES

OPEN TO JUNIORS AND SENIORS, PRIORITY GIVEN TO SENIOR PLACEMENT

Malden Catholic is pleased to be a member of *The Virtual High School* (VHS), a global nonprofit collaborative offering high-quality online courses. On a limited basis, the following elective courses are open to seniors and juniors, with priority given to senior placement. Except for the three Advanced Placement choices, these courses are half-year electives worth .5 credit at the level designated. Candidates must have a cumulative average of at least 80% and Administrative approval. After assignment, courses may be dropped only for serious reason and if other options are available. Malden Catholic assumes course fees, but after August 10 there is a withdrawal fee of \$135 for semester courses, \$270 for full-year courses assumed by Student. Course descriptions may be found at <https://my.vhslearning.org/PublicStudentCourseList.aspx>.

ENGLISH ELECTIVES [0.5 Credits]

- 2291 VHS - Creative Writing (Honors)
- 2292 VHS - Film and Literature (College Preparatory)

SOCIAL STUDIES ELECTIVES [0.5 Credits, Unless Noted]

- 2490 VHS - AP Human Geography** [1.0 Credit]
- 2491 VHS - Criminology (College Preparatory)
- 2492 VHS - Psychology of Crime (College Preparatory)
- 2493 VHS - The Holocaust (College Preparatory)

BUSINESS ELECTIVES [0.5 Credits]

- 2591 VHS - Entrepreneurship (College Preparatory)
- 2592 VHS - Investing in the Stock Market (College Preparatory)

FINE ARTS ELECTIVES [1.0 Credit]

- 2590 VHS - AP Music Theory**
- 2593 VHS - Music Listening and Critique (College Preparatory)
- 2594 VHS - American Popular Music (College Preparatory)

SCIENCE ELECTIVES [0.5 Credits]

- 2691 VHS - Oceanography (Honors)
- 2692 VHS - Astronomy Principles (College Preparatory)
- 2693 VHS - Forensic Science (College Preparatory)
- 2694 VHS - Biology (College Preparatory) [1.0 Credits]

COMPUTER SCIENCE ELECTIVE [0.5 Credits]

- 2791 VHS - Video Game Design Using Game Maker (Honors)

MATHEMATICS ELECTIVES [0.5 Credits, Unless Noted]

- 2890 VHS - AP Statistics** [1.0 Credit]
- 2891 VHS - Differential Calculus (Honors)
- 2892 VHS - Number Theory (Honors)

LEADERSHIP

REQUIRED COURSES

All students are required to take four years (1.0 credit) of Leadership courses to meet their graduation requirements.

GRADE 9

2011 LEADERSHIP 1

Pass/Fail, 0.25 Credits

Prerequisites: None.

This course will work to help students develop a healthy personal image. Students will have the opportunity to discuss issues that impact girls. The course will be designed to build strong independent thinkers and future leaders in our community with a true sense of ethics and conviction.

SOPHOMORE YEAR

2021 LEADERSHIP 2

College Preparatory, 0.25 Credits

Prerequisites: None.

This course will work to help students develop a healthy personal image. Students will have the opportunity to discuss issues that impact girls. The course will be designed to build strong independent thinkers and future leaders in our community with a true sense of ethics and conviction. This course is graded.

JUNIOR YEAR

2031 LEADERSHIP 3

College Preparatory, 0.25 Credits

Prerequisites: None.

This course will work to help students develop a healthy personal image. Students will have the opportunity to discuss issues that impact girls. The course will be designed to build strong independent thinkers and future leaders in our community with a true sense of ethics and conviction. This course is graded.

SENIOR YEAR

2041 LEADERSHIP 4

College Preparatory, 0.25 Credits

Prerequisites: None.

This course will work to help students develop a healthy personal image. Students will have the opportunity to discuss issues that impact girls. The course will be designed to build strong independent thinkers and future leaders in our community with a true sense of ethics and conviction. This course is graded.

THEOLOGY

REQUIRED COURSES

All students are required to take four years (4.0 credits) of required Theology courses to meet their graduation requirements.

GRADE 9

2113 THEOLOGY 1

College Preparatory, 1.0 Credit

Prerequisites: None.

Students will be given a general knowledge and appreciation of Sacred Scripture. They will be introduced to key figures, events, vocabulary, and doctrine in a study of both the Old and New Testament.

SOPHOMORE YEAR

2122 THEOLOGY 2

College Preparatory, 1.0 Credit

Prerequisites: Successful completion of 2113 Theology 1.

This course reveals the sacraments as the definitive way that Jesus remains present to the Church and the world today. Students will explore concrete ways to understand the sacraments, participate in their rites, and benefit from their graces. This course is constructed around key definitions that help students to formulate an understanding of ecclesiology. Each definition has a historical component that traces its meaning through major periods of Church history, helping students understand how the Church reflects the light of Christ today.

JUNIOR YEAR

2130 **AP CAPSTONE SEMINAR** - THEOLOGY 3

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement. Strong success in language-based Honors level courses, strong reading skills, suitable AP potential and enrollment in other AP courses.

The Theology AP Capstone Program consists of two courses – AP Seminar and AP Research – taken in sequence in the Junior and Senior years. Students taking the Junior course should intend also to take the Senior one. These yearlong courses will take the content typically associated with our Junior and Senior Theology courses and focus on developing the critical thinking, research, collaboration, time management, and presentation skills students need for college-level work. In AP Seminar students learn to consider an issue from multiple perspectives, identify credible sources, evaluate strengths and weaknesses of arguments, and make logical, evidence-based recommendations. Students investigate a variety of topics through various viewpoints of personal choice. During the course, students complete a team project and an individual paper and presentation, as well as take a written end-of-course exam. These components contribute to the overall AP Seminar score. AP Seminar is a Prerequisite for AP Research (Senior year). Students will use a Digital Portfolio for assessments.

If a student earns scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of one's choice, the student receives the AP Capstone Diploma™. Students earning scores of 3 or higher in AP Seminar and AP Research will receive the AP Seminar and Research Certificate™.

THEOLOGY

REQUIRED COURSES

JUNIOR YEAR [CONTINUED]

2132 THEOLOGY 3

College Preparatory, 1.0 Credit

Prerequisites: Successful completion of 2122 Theology 2.

This course introduces to students the Church's rich body of social teaching that comes to us from the essential writings of the popes, highlighting the works from Pope Leo XIII onward while exploring how societies work. An overarching theme of the text is a discussion of the foundational values that ought to govern a just society. This course focuses on the essential message of Christ's moral teaching and the importance of love of God and neighbor. Students will study nine essential steps for living a Christian moral life in the Catholic tradition.

SENIOR YEAR

2140 [AP CAPSTONE RESEARCH](#) – THEOLOGY 4

Advanced Placement, 1.0 Credit

Prerequisites: Department approval. Successful completion of 2130 AP Capstone Seminar - Theology 3 with a grade of 76 or above.

While working with a teacher/expert advisor, students will explore an academic topic, problem, or issue within the scope of senior Theology that interests them and design, plan, and conduct a year-long research-based investigation to address it. The course culminates in an academic paper of 4,000 – 5,000 words and a presentation, with an oral defense; during which the student will answer 3-4 questions from a panel of evaluators. AP Research is the second course in the AP Capstone™ program. AP Seminar is a Prerequisites for AP research. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma™. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, students who earn scores of 3 or higher in AP Seminar and AP Research only will receive the AP Seminar and Research Certificate™.

2145 THEOLOGY 4: WORLD RELIGIONS

College Preparatory, 1.0 Credit

Prerequisites: Successful completion of 2132 Theology 3.

This course allows students to build on their understanding and experience of the Catholic Christian faith by studying different religious traditions. The course includes a study of Judaism, Islam, Hinduism, Buddhism, Confucianism, Shintoism, Taoism as well as a focus on Protestant traditions. It helps develop an understanding of these different faiths with a view towards elaborating on Christian faith and comparing the similarities and differences that exist within each faith tradition.

2146 THEOLOGY 4: CATHOLIC SPIRITUALITY

College Preparatory, 1.0 Credit

Prerequisites: Successful completion of 2132 Theology 3.

The purpose of this course is to explore vocations with an invitation to each student to explore her spiritual life. We will place a particular emphasis on the study of Theodore James Ryken, the Xaverian Brothers, Associates, Collaborators and other holy men and women. It will emphasize the various vocations spiritual practices, personal development. The course looks in a particular way at the call to discipleship as exhibited by the Xaverian Brothers now and in the past. We will explore this subject through group discussions, projects, prayer and journaling so that students are able to better recognize and develop their own spiritual journey.

THEOLOGY

REQUIRED COURSES

SENIOR YEAR [CONTINUED]

2147 THEOLOGY 4: WOMEN IN CHRISTIAN TRADITION**College Preparatory, 1.0 Credit**

Prerequisites: Successful completion of 2132 Theology 3.

Examines the experience of women in the Christian Communion of the past and provides a Scriptural and theological background needed for a better understanding of the important role women have played in the Catholic tradition and in society today.

ENGLISH

REQUIRED COURSES

All students are required to take four years (4.0 credits) of required English courses to meet their graduation requirements.

GRADE 9

2212 ENGLISH 1: LITERATURE & WRITING

Honors, 1.0 Credit

Prerequisites: Administrative placement.

This first-year writing course prepares students to develop as writers through extensive practice in process strategies, argumentation, and research methods. Students will learn and apply rhetorical strategies to write effectively in print and electronic environments for a variety of audiences, and will learn to think, read, and write critically about significant issues in multiple contexts. Grammar study will be included in this course.

An integrated English course based in the study of language, literature, composition, and oral communication with a focus on exploring a wide variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 9 in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository and argumentative/persuasive compositions and research reports. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

2214 ENGLISH 1: LITERATURE & WRITING

College Preparatory, 1.0 Credit

Prerequisites: Administrative placement.

This first-year writing course prepares students to develop as writers through extensive practice in process strategies, argumentation, and research methods. Students will learn and apply rhetorical strategies to write effectively in print and electronic environments for a variety of audiences, and will learn to think, read, and write critically about significant issues in multiple contexts. Grammar study will be included in this course.

An integrated English course based in the study of language, literature, composition, and oral communication with a focus on exploring a wide variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 9 in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository and argumentative/persuasive compositions and research reports. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

ENGLISH

REQUIRED COURSES

SOPHOMORE YEAR

2221 ENGLISH 2: LITERATURE & WRITING**Honors, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2212 English 1 (Honors) with a grade of 76 or above, or 2214 English 1 (College Preparatory) with a grade of 93 or above.

This second year will focus on deepening writing principles and begin the research writing process. This writing course prepares students to develop as writers through extensive practice in process strategies, argumentation, and research methods. Students will learn and apply rhetorical strategies to write effectively in print and electronic environments for a variety of audiences, and will learn to think, read, and write critically about significant issues in multiple contexts. Grammar study will be included in this course.

An integrated English course based in the study of language, literature, composition, and oral communication with a focus on exploring a wide variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 10 in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository and argumentative/persuasive compositions and research reports. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

2223 ENGLISH 2: LITERATURE & WRITING**College Preparatory, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2214 English 1 (College Preparatory) or 2212 English 1 (Honors) with a grade below a 76.

This second year will focus on deepening writing principles and begin the research writing process. This writing course prepares students to develop as writers through extensive practice in process strategies, argumentation, and research methods. Students will learn and apply rhetorical strategies to write effectively in print and electronic environments for a variety of audiences, and will learn to think, read, and write critically about significant issues in multiple contexts. Grammar study will be included in this course.

An integrated English course based in the study of language, literature, composition, and oral communication with a focus on exploring a wide variety of genres and their elements. Students use literary interpretation, analysis, comparisons, and evaluation to read and respond to representative works of historical or cultural significance appropriate for Grade 10 in classic and contemporary literature balanced with nonfiction. Students write responses to literature, expository and argumentative/persuasive compositions and research reports. Students deliver grade-appropriate oral presentations and access, analyze, and evaluate online information.

ENGLISH

REQUIRED COURSES

JUNIOR YEAR

2230 AP ENGLISH LANGUAGE & COMPOSITION

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement.

The AP English Language and Composition course aligns to an introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

Note: Students taking this course are required to take the AP Exam in May.

2233 ENGLISH 3

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement.

This course is designed for students with the consistently motivated diligence to achieve. It covers a chronological approach to American Literature from 1650 to the present, the study of vocabulary, grammar drills, work with SAT preparation, analysis of outside reading selections, and further development of writing skills. The student is also expected to engage in in-depth discussion, to present material in public speaking format and to complete an MLA documented research paper. The course employs the use of critical thinking in its methods.

SENIOR YEAR

2240 AP ENGLISH LITERATURE & COMPOSITION

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2230 AP English Language & Composition with a grade of 76 or above.

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the way writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

Note: Students taking this course are required to take the AP Exam in May.

2243 ENGLISH 4

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement.

The English 4 Course is designed for the advanced student who is capable of a rigorous course in both literature and composition based on a survey of the chronology of English literature, supplemented by historical and cultural input. Students are expected to attain a high degree of proficiency in reading and writing. The class studies selections from the four main literary genres as a means of preparation for success in all phases of a college English course, including literary analysis, written composition, and class discussion. Students are required to write at least one well-documented research paper.

ENGLISH

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2291 [VHS - CREATIVE WRITING](#)

Honors, 0.5 Credits

Prerequisites: Administrative approval. Comfort and proficiency with the English language. Experience writing poems and stories.

The semester will begin with thought, reading, on-line discussion and writing about WHY people write. Why bother to do imaginative writing when we can just turn on our TVs or access the Internet? The class will explore these questions: What is the fundamental impulse behind poems and stories? How are they constructed, and what techniques do particular writers use effectively? What kinds of work do we most admire and why? How can a piece of fiction or a poem speak to us across, years, genders, and cultures?

2292 [VHS - FILM & LITERATURE](#)

College Preparatory, 0.5 Credits

Prerequisites: Administrative approval.

In this course, students will become movie critics, readers of some of the world's finest 20th century novels, and work on unique projects with students around the world. Participants will explore the momentous events of the 20th century as they were depicted in literature and on film.

The course focuses on three pivotal changes. 1) WWI and the Russian Revolution; 2) 1920's - WWII; 3) the Cold War. The course will bring students through those periods through the literature of the time. In addition to reading literary works (from Pasternak's "Dr. Zhivago" to Forsyth's "The Odessa File"), students will also view the film adaptations that portray the lives of the people living during this fascinating time.

FOREIGN LANGUAGE

REQUIRED COURSES

All students are required to take two years (2.0 credits) of courses in the same Foreign Language to meet their graduation requirements. All freshmen are required to take 2301 Introduction to Latin (Honors) or 2303 Introduction to Latin 1 (College Preparatory) during their 1st Semester.

GRADE 9

2301 INTRODUCTION TO LATIN (1ST Semester)

Honors, 0.5 Credits

Prerequisites: Administrative placement.

This course introduces students to the basics of Latin grammar, syntax, and vocabulary with the goal of empowering them to read and comprehend (modified) Latin texts that broadly survey Ancient Roman history, philosophy, and culture. Students are required to complete a variety of language tasks including translation both into and from Latin and answer comprehension questions on Latin passages. Ultimately, this course develops students' ability to identify and analyze fundamental grammatical constructions while improving their vocabulary and comprehension skills, both within the target language, as well as in English. The honors level will involve additional outside reading and writing.

2303 INTRODUCTION TO LATIN (1ST Semester)

College Preparatory, 0.5 Credits

Prerequisites: Administrative placement.

This course introduces students to the basics of Latin grammar, syntax, and vocabulary with the goal of empowering them to read and comprehend (modified) Latin texts that broadly survey Ancient Roman history, philosophy, and culture. Students are required to complete a variety of language tasks including translation both into and from Latin and answer comprehension questions on Latin passages. Ultimately, this course develops students' ability to identify and analyze fundamental grammatical constructions while improving their vocabulary and comprehension skills, both within the target language, as well as in English. The honors level will involve additional outside reading and writing.

2311 SPANISH 1 (2ND Semester)

Honors, 0.5 Credits

Prerequisites: Administrative placement.

This level of Spanish introduces very basic grammatical structure, vocabulary, and verb forms at an appropriate pace for the students. Teachers provide numerous language drills along with additional reinforcements such as regular worksheets and constant oral review. Readings from the text acquaint students with Spanish culture.

2313 SPANISH 1 (2ND Semester)

College Preparatory, 0.5 Credits

Prerequisites: Administrative placement.

This level of Spanish introduces very basic grammatical structure, vocabulary, and verb forms at an appropriate pace for the students. Teachers provide numerous language drills along with additional reinforcements such as regular worksheets and constant oral review. Readings from the text acquaint students with Spanish culture.

2314 LATIN 1 (2ND Semester)

Honors, 0.5 Credits

Prerequisites: Administrative placement.

This course provides an introduction to the Latin language with an emphasis on basic reading. Much effort is made to strengthen both the students' grammatical and vocabulary ability. The basic Latin sentence form is taught. Daily assignments and quizzes are an integral part of the course.

FOREIGN LANGUAGE

REQUIRED COURSES

SOPHOMORE YEAR

2321 SPANISH 2**Honors, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2311 Spanish 1 (Honors) with a grade of 76 or above, or 2313 Spanish 1 (College Preparatory) with a grade of 93 or above.

This second-year Spanish class stresses oral communication and the essentials of Spanish grammar. Emphasis is placed on the study of regular and irregular verbs in the indicative mood. The course introduces many important cultural aspects of the Hispanic world through various reading selections, audio materials, videos and the continued use of the target language by the instructor, which will expand the student's communicative abilities. This course is also offered at the honors level which will emphasize fast paced oral communication and a more in-depth study of the language.

2322 SPANISH 2 HERITAGE**Honors, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2311 Spanish 1 (Honors) with a grade of 76 or above, or 2313 Spanish 1 (College Preparatory) with a grade of 93 or above.

This second-year Spanish class stresses oral communication and the essentials of Spanish grammar. Emphasis is placed on the study of regular and irregular verbs in the indicative mood. The course introduces many important cultural aspects of the Hispanic world through various reading selections, audio materials, videos and the continued use of the target language by the instructor, which will expand the student's communicative abilities. This course is also offered at the honors level which will emphasize fast paced oral communication and a more in-depth study of the language.

2323 SPANISH 2**College Preparatory, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2313 Spanish 1 (College Preparatory) or 2311 Spanish 1 (Honors) with a grade below a 76.

This second-year Spanish class stresses oral communication and the essentials of Spanish grammar. Emphasis is placed on the study of regular and irregular verbs in the indicative mood. The course introduces many important cultural aspects of the Hispanic world through various reading selections, audio materials, videos and the continued use of the target language by the instructor, which will expand the student's communicative abilities. This course is also offered at the honors level which will emphasize fast paced oral communication and a more in-depth study of the language.

2324 LATIN 2**Honors, 1.0 Credit**

Prerequisites: Successful completion of 2314 Latin 1 (Honors).

This course will continue the study of the Latin language with an emphasis on vocabulary and grammatical structures and their application to English. Our reading will focus on Medieval and early modern Latin, concluding with the unadapted text of Nepos' Life of Atticus., Daily assignments and quizzes are an integral part of the course.

FOREIGN LANGUAGE

REQUIRED COURSES

JUNIOR YEAR

2331 SPANISH 3**Honors, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2321 Spanish 2 (Honors) with a grade of 76 or above, 2322 Spanish 2 Heritage (Honors) with a grade of 76 or above, or 2323 Spanish 2 (College Preparatory) with a grade of 93 or above.

The honors level of Spanish 3 begins with a review of the grammatical structures and verb forms introduced in Spanish 3 at a pace appropriate to the students. Additionally, students learn new structures, vocabulary and verb forms as they further strengthen their listening comprehension and speaking skills. Teachers provide constant review and steady reinforcement through written and oral practice. This course is also offered at the honors level which will stress oral communication, grammar, literature and composition at a more intense pace as well as a more in-depth study of the language.

2333 SPANISH 3**College Preparatory, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2323 Spanish 2 (College Preparatory) with a grade of 76 or better, 2321 Spanish 2 (Honors) with a grade below 76, or 2322 Spanish 2 Heritage (Honors) with a grade below 76.

The college preparatory level of Spanish 3 begins with a review of the grammatical structures and verb forms introduced in Spanish 3 at a pace appropriate to the students. Additionally, students learn new structures, vocabulary and verb forms as they further strengthen their listening comprehension and speaking skills. Teachers provide constant review and steady reinforcement through written and oral practice. This course is also offered at the honors level which will stress oral communication, grammar, literature and composition at a more intense pace as well as a more in-depth study of the language.

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2334 LATIN 3**Honors, 1.0 Credit**

Prerequisites: Successful completion of 2324 Latin 2 (Honors).

This course will begin with an intensive review of all grammatical constructs from the first two years and will continue with a chronological survey of Latin authors including Caesar, Catullus, Cicero, Ovid, Vergil, Horace, Ovid & Erasmus, covering the various genres of History, Commentary, Elegy, Epiz, Law, Philosophy, Satire and Biography.

FOREIGN LANGUAGE

ELECTIVES

OPEN TO SENIORS ONLY

2340 AP SPANISH LANGUAGE & CULTURE

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of Spanish 3 Honors (2331) with a grade of 93 or above, work of superior quality, recommendation of Spanish 3 teacher.

The AP Spanish Language and Culture course emphasizes communication (understanding and being understood by others) by applying the interpersonal, interpretive, and presentational modes of communication in real-life situations. This includes vocabulary usage, language control, communication strategies, and cultural awareness. The AP Spanish Language and Culture course strives not to overemphasize grammatical accuracy at the expense of communication. To best facilitate the study of language and culture, the course is taught almost exclusively in Spanish. The AP Spanish Language and Culture course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (e.g., tools, books, music, laws, conventions, institutions); practices (patterns of social interactions within a culture); and perspectives (values, attitudes, and assumptions).

Note: Students taking this course are required to take the AP Exam in May.

2350 AP LATIN

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of Latin 3 Honors (2334) with a grade of 93 or above.

The AP Latin course focuses on the in-depth study of selections from two of the greatest works in Latin literature: Vergil's Aeneid and Caesar's Gallic War. The course requires students to prepare and translate the readings and place these texts in a meaningful context, which helps develop critical, historical, and literary sensitivities. Throughout the course, students consider themes in the context of ancient literature and bring these works to life through classroom discussions, debates, and presentations. Additional English readings from both of these works help place the Latin readings in a significant context.

Note: Students taking this course are required to take the AP Exam in May.

SOCIAL STUDIES

REQUIRED COURSES

All students are required to take three years (3.0 credits) of required Social Studies courses to meet their graduation requirements.

GRADE 9

2410 AP WORLD HISTORY: MODERN

Advanced Placement, 1.0 Credit

Prerequisites: Administrative placement. 70 or higher in Reading on the HSPT and proficiency scores on entry level testing.

This course is designed to be the equivalent of a two-semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 8000 B.C.E. to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures.

Note: Students taking this course are required to take the AP Exam in May.

2413 WORLD HISTORY 1: ANCIENT TO PRE-MODERN

College Preparatory, 1.0 Credit

Prerequisites: Administrative placement.

This course is designed to provide students with knowledge and understanding of the history, way of life and important issues facing the great civilizations from the dawn of humankind through to the Industrial Revolution. The main questions of this course will be what leads to the rise and development of civilization and what leads to the downfall of civilizations. The course will follow historical, social, religious, economic and geographic developments of the world prior to the Modern Era. Students will look at a variety of the great civilizations including the Egyptians, Mesopotamians, Greeks, Romans, Chinese Dynasties, Muslim empires and European monarchies. The course is also designed to develop critical thinking abilities, and requires primary and secondary source analysis, critical reading, critical writing, and research utilizing an abundance of technological resources.

SOCIAL STUDIES

REQUIRED COURSES

SOPHOMORE YEAR

2420 AP EUROPEAN HISTORY

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2410 AP World History: Modern with a grade of 76 or above, or 2413 World History 1: Ancient to Pre-Modern (College Preparatory) with a grade of 93 or above.

AP European History is designed to be the equivalent of a two-semester introductory college or university European history course. In AP European History students investigate significant events, individuals, developments, and processes in four historical periods from approximately 1450 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing historical evidence; contextualization; comparison; causation; change and continuity over time; and argument development. The course also provides six themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions of power; individual and society; and national and European identity.

Note: Students taking this course are required to take the AP Exam in May.

2423 WORLD HISTORY 2: MODERN TO CURRENT

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2413 World History 1: Ancient to Pre-Modern (College Preparatory), or 2410 AP World History: Modern with a grade below a 76.

Modern World History and Current Events is designed to provide students with knowledge and understanding of the history and important issues that have occurred in the world over the past 250 years. The course will follow the historical, social, religious, economic and geographic developments of the world in the Modern Era. Key events that will be analyzed include the Russian Revolution, Rise of Communism, World War I, World War II, the Cold War and Globalization. Special attention will be paid to analyzing how our world today has become so globalized and tracing the roots of our global problems today. This course is designed to develop sequencing and causation skills, helping students understand why the world is the way it is today by looking back over the key events of the past 250 years that shaped and influenced our world.

SOCIAL STUDIES

REQUIRED COURSES

JUNIOR YEAR

2430 AP U.S. HISTORY

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2420 AP European History with a grade of 76 or above, or 2423 World History 2: Modern to Current (College Preparatory) with a grade of 93 or higher.

AP U.S. History is designed to be the equivalent of a two-semester introductory college or university U.S. history course. In AP U.S. History students investigate significant events, individuals, developments, and processes in nine historical periods from approximately 1491 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; making historical comparisons; utilizing reasoning about contextualization, causation, and continuity and change over time; and developing historical arguments. The course also provides seven themes that students explore throughout the course in order to make connections among historical developments in different times and places: American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society.

Note: Students taking this course are required to take the AP Exam in May.

2433 U.S. HISTORY

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2423 World History 2: Modern to Current (College Preparatory), or 2420 AP European History with a grade below 76.

U.S. History is a study of United States history from the arrival of the earliest humans in the Americas to the present. The course emphasizes the political, economic, and social developments in the United States. Students will be challenged to develop their reading, writing and critical thinking skills, as well as presentation skills. Areas of emphasis will include the American Revolution, United States Constitution, the Civil War, World War II, the Cold War, as well as the fundamental principles of the American democratic tradition. Students will utilize technology to analyze current events in the United States and trace their causation to their historical roots.

SOCIAL STUDIES

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2490 [VHS - AP HUMAN GEOGRAPHY](#)

Advanced Placement, 1.0 Credit

Prerequisites: Administrative approval. The required summer assignment for AP® Human Geography can be found here: [AP Summer Work](#).

The AP® Human Geography course, designed to meet the needs of highly motivated students, is organized around the major themes of human interactions within a shared world that considers the questions, where and why. Where do people live and why or how do cultures influence human behavior? Students will study the elements of sociology, anthropology, religion, politics, economics, and psychology that help students understand how to make sense of others and themselves in a locality, region and the world. The course is offered at a college level class and will require rigorous work and effort. Students should expect to complete a variety of readings, writings, and practice exams as well as to participate in many discussions and activities. It is expected that students will take the Advanced Placement Human Geography exam in May, as preparation for this exam is one of the major goals of the course.

The course will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. The seven topics include Geography: Its Nature and Perspectives, Population, Cultural Patterns and Processes, Political Organization of Space, Agriculture and Rural Land Use, Industrialization and Economic Development and Cities and Urban Land Use. A significant outcome of the course is students' awareness of the relevance of academic geography to everyday life and decision making. This combination of the academic and the applied gives students a sophisticated view of the world and an understanding of the manifold applications of what they have learned in the course. **Students taking this course are required to take the AP Exam in May.**

2491 [VHS - CRIMINOLOGY](#)

College Preparatory, 0.5 Credits

Prerequisites: Administrative approval.

How can a person commit unspeakable criminal acts? How can someone who seemingly has everything throw it all away by doing something illegal? Criminology will explore these questions, and many others, in a semester-long exploration into the reasons why people commit crimes.

This course begins with an examination of why laws were created and how they evolve over time in response to society's needs. Then the focus moves to the theoretical perspectives of criminal behavior including biological, psychological and sociological theories. Students will delve into the minds of serial killers, thieves, drug dealers, and even corporate criminals while examining notable and notorious criminals. Finally, the class will explore the treatment of criminals by the correctional system. Students will be asked to design a policy statement for crime prevention and treatment programs for criminals.

2492 [VHS - PSYCHOLOGY OF CRIME](#)

College Preparatory, 0.5 Credits

Prerequisites: Administrative approval.

Students will learn how psychology applies to questions and issues relating to law and the legal system. The course will include all aspects of the legal system including police, the trial and corrections. Topics will include recovered memories, children as victims and offenders, violence and murder, strategies for interviewing witnesses, expert testimony, and factors influencing the credibility of witnesses, victims and offenders and insanity. Students will also examine the relationship of psychology and law in the educational and work settings.

SOCIAL STUDIES

ELECTIVES

OPEN TO JUNIORS AND SENIORS [CONTINUED]

2493 [VHS - THE HOLOCAUST](#)

College Preparatory, 0.5 Credits

Prerequisites: Administrative approval.

The Holocaust is a major event in human history. The murder of six million Jews--as well as millions of other human beings--is a tragedy of such magnitude that it seems impossible for any one person to fully comprehend. But what seemed impossible did, in fact, happen. We are left to try to learn the lessons of this tragic history so that each of us might do our part to help prevent such events from happening in the future.

There are important lessons to be learned in a study of the Holocaust, and this course will introduce students to such concepts as the capacity for some people to hate, stereotype, dehumanize, humiliate and even murder those who are different from themselves; how the vast majority of Germans and others simply stood by and took no action when Jews and other minority groups were being treated unjustly and ultimately taken away to be killed; and how this history also brought out the best in human courage and the will to survive, as well as the compassion some brave individuals displayed to put themselves and their families at risk for the sake of others.

To properly understand the Holocaust, students will become familiar with the long history of antisemitism, as well as engaging in a study of individual identity, group membership, and the targeting of "The Other." The course will examine the rise of Hitler and the Nazi party throughout the 1920s and 1930s. Students will understand the history through primary source documents and personal testimonies, as a way to connect "head and heart" as we grapple with--and try to make sense out of--this tragic history.

OPEN TO SENIORS ONLY

2450 [AP U.S. GOVERNMENT & POLITICS](#)

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2430 AP U.S. History with a grade of 76 or above, or 2433 U.S. History (College Preparatory) with a grade of 93 or higher.

This college-level course introduces students to key political ideas, institutions, policies, interactions, roles, and behaviors that characterize the political culture of the United States. The course examines politically significant concepts and themes, through which students learn to apply disciplinary reasoning, assess causes and consequences of political events, and interpret data to develop evidence-based arguments.

Note: Students taking this course are required to take the AP Exam in May.

SOCIAL STUDIES

ELECTIVES

OPEN TO SENIORS ONLY [CONTINUED]

2453 U.S. GOVERNMENT & CURRENT ISSUES**College Preparatory, 0.5 Credits***Prerequisites: None.*

U.S. Government and Current Issues is designed to provide students with knowledge and understanding of our political structures in the United States and how they work towards resolving National and Global Conflicts. There are two main concepts that will be covered in this one semester course. First, Students will gain civic awareness of our political institutions, election cycles, American ideologies and the role citizen play in our government. The second concept is the understanding of Modern-Day Issues and the roots of these issues. We will use 20th Century history to trace back current American Issues such as, Race Relations, U.S. World Relations, U.S. Economic Policy and the emergence of Globalization from U.S. perspective. Throughout the course, the student will be introduced to facts and concepts and encourages to develop an understanding of the reason why the United States and to a lesser degree the World is in its current state. Students will develop their research, writing, speaking and critical thinking skills. In addition, students will develop their skills in reading primary as well as secondary sources.

2455 NATIVE AMERICAN STUDIES**College Preparatory, 0.5 Credits***Prerequisites: None.*

This course will analyze the history of the "American Indian" from its pre-Columbian roots to the present day. Each native tribe of the Americas is a unique entity, and this course will work to identify the major contributions, historical events, and key figures of many specific groups. The course will briefly study the original native empires of the Americas (Olmec, Moche, Maya, Aztec, Inca) as well as the native tribes of the US in the early years of the English colonies (Wampanoag, Powhattan, Pequot, Seminole, Cherokee, etc.). However, the focus of the course will be the Great Plains and the Lakota Nation, studying both the its history in the region and the modern-day reservation system. This course will utilize primary and secondary sources throughout history and work to evaluate Native American representation in film as a final project.

2456 PHILOSOPHY**Honors, 0.5 Credits***Prerequisites: None.*

This course will explore more than 100 big ideas on topics as diverse as the nature of existence, knowledge, ethics, politics, language, and religion. We will journey through the history of philosophy, from the influential ideas of ancient Greece and Asia to modern concepts voiced by today's brightest thinkers.

ARTS

ELECTIVES

All students are required to take one year (1.0 credit) of Arts courses during their Freshman year to meet their graduation requirements.

OPEN TO GRADE 9 ONLY

2501 DRAMA

Pass/Fail, 0.5 Credits

Prerequisites: None.

An introduction to the nature of theater as a performing art. Students study selected plays from the perspective of actors and directors, and the strategies of playwrights to develop the ability to image the play in performance and to appreciate the range of theater's possibilities.

2502 SPEECH

Pass/Fail, 0.5 Credits

Prerequisites: None.

Speech is a one-semester introductory course that covers a variety of styles of public speaking and formal debate. Through research and practice students will become familiar with these styles through instruction, research, and practice. Each unit will culminate in performance assignments that require students to demonstrate their abilities within the classroom setting. Opportunities to take their knowledge to competition at the local and state level may be made available to students as well through extracurricular programs.

2503 INTRODUCTION TO DANCE

Pass/Fail, 0.5 Credits

Prerequisites: None.

A semester long course touching upon various genres of dance including Ballet, Jazz, Hip Hop, Modern and Contemporary, Lyrical, Social and Line Dance, and Cultural Dance. The course will cover the history of each genre, and various techniques and styles. The students will learn combinations and routines, all to be performed. With the completion of this course, students will gain a sense of familiarity of the major genres of dance being performed today, as well as gain a sense of joy that dance can bring.

2541 STUDIO ART 1

Pass/Fail, 0.5 Credits

Prerequisites: None.

Basic drawing is an acquired skill: you can do it! Studio Art 1 guides students through a developmental series of drawing strategies to help them gain the perceptual skills they need to create drawings from observation. Learning to use a variety of pencils, charcoal, pen and ink, colored pencil, oil crayon, and pastels, students will compile their own drawing portfolio. To those who may later be interested in applying to a school of art or architecture, this portfolio could be a valuable foundation. Students will also learn about art from various periods in history.

2581 CHOIR

Pass/Fail, 1.0 Credit

Prerequisites: None.

This is a year-long course that explores choral music from a wide variety of cultures and time periods through study and performance. The core curriculum emphasizes the basics of vocal technique, sight-reading, music theory, and music history. Students in Chorale are expected to participate in one evening concert each quarter as a major part of their grade.

ARTS

ELECTIVES

OPEN TO SOPHOMORES, JUNIORS AND SENIORS

2511 DRAMA: THE MUSICAL**Honors, 1.0 Credit**

Prerequisites: Successful completion of 2501 Drama or 2581 Choir.

This course is for the student that is interested in Musical Theatre – both on stage and “behind the scenes”. Students will have the opportunity to rehearse, perform, direct, and choreograph/stage various scenes and shows from the Broadway genre. All students are expected to both perform and direct/produce. Performances will be both in-class and “main-stage” productions. Performances are required for all students.

2512 DEBATE**Honors, 0.5 Credits**

Prerequisites: None.

Debate is a one-semester course that covers a variety of styles of public speaking and formal debate. Through research and practice students will become familiar with these styles through instruction, research, and practice. Each unit will culminate in performance assignments that require students to demonstrate their abilities within the classroom setting. Opportunities to take their knowledge to competition at the local and state level may be made available to students as well through extracurricular programs.

2513 JAZZ DANCE**Honors, 0.5 Credits**

Prerequisites: Successful completion of 2503 Introduction to Dance.

A semester long course diving deep into the various styles of Jazz Dance in the world today such as Classic Jazz, Musical Theater, Jazz Funk, Video Dance, Hip Hop, and Commercial Dance. This class will dive deep into the history of Jazz Dance and how it has evolved over the years. The course will explore movement styles and teach various pieces to be performed and graded. Students will also prepare projects which combine research presentation and movement. With the completion of this course, students will gain a solid understanding of Jazz Dance styles commonly found performed all over the world today.

2514 CONTEMPORARY DANCE**Honors, 0.5 Credits**

Prerequisites: Successful completion of 2503 Introduction to Dance.

A semester long course diving deep into the various styles of Contemporary Dance in the world today such as Contemporary Ballet, Horton, Limon and Graham Modern Techniques, and Ballet. The class will dive deep into the history of Contemporary Dance and how it has evolved over the years. Students will explore various techniques and learn a wide range of pieces to be performed and graded. Students will also prepare projects which combine research presentation and movement. With the completion of this course, students will gain a solid understanding of Contemporary Dance styles commonly found performed all over the world today.

ARTS

ELECTIVES

OPEN TO SOPHOMORES, JUNIORS AND SENIORS [CONTINUED]

2542 STUDIO ART 2**Honors, 0.5 Credits**

Prerequisites: Successful completion of 2531 Studio Art 1 with a grade of 76 or above.

Basic drawing is an acquired skill: you can do it! Studio Art 2 guides students through a developmental series of drawing strategies to help them gain the perceptual skills they need to create drawings from observation. Learning to use a variety of pencils, charcoal, pen and ink, colored pencil, oil crayon, and pastels, students will compile their own drawing portfolio. To those who may later be interested in applying to a school of art or architecture, this portfolio could be a valuable foundation. Students will also learn about art from various periods in history.

2551 DIGITAL ART**Honors, 0.5 Credits**

Prerequisites: None.

Digital Art teaches fundamentals of photography and digital imaging. Through personal practice, demonstration, lecture, and critique students will learn the basics of color, composition, camera function, and digital editing. Along the way, students will learn a basic vocabulary as it relates to both contemporary and traditional photography. Through daily assignments, students will develop an eye for interesting, strong composition and hone those editing skills that will result in powerful digital images. There will be a Quarterly term project.

2582 ADVANCED CHOIR**Honors, 1.0 Credits**

Prerequisites: Audition.

This is a year-long course that explores choral music from a wide variety of cultures and time periods through study and performance. The core curriculum emphasizes the basics of vocal technique, sight-reading, music theory, and music history. Students in Chorale are expected to participate in one evening concert each quarter as a major part of their grade.

Note: *This course can be repeated for credit.*

ARTS

ELECTIVES

OPEN TO JUNIORS AND SENIORS

1590 VHS - AP MUSIC THEORY

Advanced Placement, 1.0 Credit

Prerequisites: Administrative approval. Proficiency in playing major and minor scales, reading basic tonal melodies, and using proper technique on one or more musical instruments (vocal, orchestral, band).

Strongly Recommended: At least one semester of practice writing traditional music notation with proper technique. At least one semester of keyboard instruction, including scales and triad formation.

This course is designed to give the student an understanding of music theory, sight reading, and aural skills that is equivalent to that of a first-year college music student. It is also designed with the explicit purpose of preparing the student for the AP® Exam in Music Theory. The course content and presentation will adhere to the guidelines set forth by the College Board in the Music Theory Course Description.

The course will cover: the fundamentals of traditional melodic and harmonic composition through the early twentieth century; multiple techniques for melodic, harmonic, and formal analysis; an introduction to two- and four-voice counterpoint; an introduction to jazz, blues, and non-Western techniques; and the basics of orchestration.

In addition, students will be trained to sight-read melodies in major and minor keys, with limited chromatic alteration. They will also perform listening exercises for the purposes of memorizing and notating specific intervals, scales, chords, rhythms, melodies, and progressions.

Note: Students taking this course are required to take the AP Exam in May.

BUSINESS

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2591 VHS – ENTREPRENEURSHIP**College Preparatory, 0.5 Credits***Prerequisite: Administrative approval.*

Entrepreneurship starts to prepare future small business owners to run their own businesses according to the principles of business. It also allows students to experience the entrepreneurial spirit. Students learn how to develop a business idea and write a business plan to promote that idea. Future businesspeople must understand economics, financial statements, marketing and selling techniques, investing, business structures, legal issues, banking, technology and taxation. Entrepreneurship teaches students how to use all of these business principles in order to develop a successful business and kindle an entrepreneurial spirit that will help students follow their dreams and reach their goals.

2592 VHS - INVESTING IN THE STOCK MARKET**College Preparatory, 0.5 Credits***Prerequisite: Administrative approval.*

In this course, students will learn about the history of the stock market as well as various internal and external influences on the economy that affect businesses and stock prices. Students will experience investing, through a realistic stock market simulation that challenges the student to evaluate companies, the economy, and various investment products that will meet their individual investing goals.

SCIENCE

REQUIRED COURSES

All students are required to take three years (3.0 credits) of required Science courses (1.0 credit Physics, 1.0 credit Biology and 1.0 credit Chemistry) to meet their graduation requirements. **Note: Each science courses offered is considered a laboratory science.**

GRADE 9

2612 PHYSICS 1

Honors, 1.0 Credit

Prerequisites: Administrative placement. Required of Grade 9 students not placed in 2614 Physics 1 (College Preparatory).

Physics 2612 is a study of mechanics, wave phenomena, and if time permits, electricity, and magnetism. The course is intended as a preparation for college-level study in science, but not exclusively for prospective science majors. Strong emphasis is placed on the development of mathematical analysis through experimentation and problem-solving skills as they apply to physics.

2614 PHYSICS 1

College Preparatory, 1.0 Credit

Prerequisites: Administrative placement. Required of Grade 9 students not placed in 2612 Physics 1 (Honors).

A study of mechanics, wave phenomena, electricity, and magnetism, Physics 2614 is intended as a preparation for college-level study in science, but not exclusively for prospective science majors. This course strongly emphasizes the application of mathematical skills and problem solving as it applies to Physics. The pace and depth of coverage are adjusted to meet the needs of the students.

SOPHOMORE YEAR

2620 AP BIOLOGY

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement.

AP Biology is an introductory college-level biology course. Students cultivate their understanding of biology through inquiry-based investigations as they explore the following topics: evolution, cellular processes—energy and communication, genetics, information transfer, ecology, and interactions.

Note: Students taking this course are required to take the AP Exam in May.

2623 BIOLOGY 1

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Required of sophomores not placed in 2620 AP Biology.

Biology is the study of life with emphasis on molecular biology. Topics include the structure and function of cells, energy processes necessary for life, ecological principles, DNA, genetics, biotechnology, reproduction, and evolution. Laboratory investigations stress qualitative and quantitative measurement, analysis, and problem solving using the scientific method. Laboratory experiments include the use of microscopes, the study of cells, and a variety of other techniques.

SCIENCE

REQUIRED COURSES

JUNIOR YEAR

2631 CHEMISTRY 1**Honors, 1.0 Credit**

Prerequisites: Departmental placement. Successful completion of 2620 AP Biology and enrolled in Algebra 2 or higher.

This course provides a rigorous study of chemistry designed to prepare students for advanced level courses—AP Chemistry and advanced college level courses. There will be experiments, mathematical, and theoretical treatment of topics such as chemical terminology, matter and energy, phases of matter, atomic structure and bonding, formulas and equations, solutions, kinetics, equilibrium, acids and bases, and oxidation-reduction. Related laboratory experiments will be performed.

2633 CHEMISTRY 1**College Preparatory, 1.0 Credit**

Prerequisites: Departmental placement. Required of juniors not placed in 2631 Chemistry 1 (Honors).

Chemistry is an experimental, mathematical, and theoretical treatment of the concepts of chemistry. The topics include chemical terminology, matter and energy, phases of matter, atomic structure and bonding, formulas and equations, solutions, kinetics, and equilibrium. The laboratory exercises for the course are closely related to the textbook material.

SCIENCE

ELECTIVES

OPEN TO JUNIORS AND SENIORS

1690 [VHS - AP ENVIRONMENTAL SCIENCE](#)

Advanced Placement, 1.0 Credit

Prerequisites: Administrative approval. The required summer assignment for AP® Environmental Science can be found here: [AP Summer Work](#).

This full year AP® Environmental Science class is equivalent to an introductory, one semester, college level, environmental science class. If you have successfully completed both high school level biology and chemistry, if you are interested in the environment, and if you are looking for a challenge, this course might be for you! Because this is a college level course, be ready to commit time to your study. This course will cover concepts in ecology, geology, sociology, economics, biology, and chemistry, that will further your understanding of how humans can live sustainably. Integrated in the course is a field study component which will improve your observational skills, allow you to develop and conduct well-designed experiments, and provide opportunity to interpret and share your observations, results and conclusions with your classmates. You will be applying concepts learned in the weekly lessons to your local field study, as well as collaborating with your classmates regularly on case studies and local environmental concerns to gain a global perspective on environmental issues. During the second semester you will engage in an independent research project which culminates in a project showcase where you will present your research to your classmates.

Note: Students taking this course are required to take the AP Exam in May.

1691 [VHS - OCEANOGRAPHY](#)

Honors, 0.5 Credits

Prerequisite: Administrative approval.

Students will board the USS Cyber, a virtual oceanographic research vessel modeled after the flagship of NOAA's fleet for a sail that begins in Woods Hole, Massachusetts, and ends in San Diego, California. As the crew of the ship, students will perform scientific experiments and collect data that will teach them about the geology, chemistry, and physics of the ocean. From the Bay of Fundy in Nova Scotia to the Caribbean and Antarctica, from the coral reefs to the hydrothermal vent communities deep in the ocean, students will make observations about the sea's ecosystems and the sometimes-unexpected life within them. There are no traditional tests. Students are expected to participate fully as members of the expedition. If you have ever wondered what it might be like to go to sea, pack your bags, and join us.

This is a survey course covering the basics of physical oceanography and marine biology presented in a fun and engaging format. There are no traditional tests. Students will be graded on their weekly assignments, which will include both individual and group projects. In lieu of a midterm or final exam, students will be expected to complete a major individual project each term. There will be a strong multimedia component to the course, and students will have the opportunity to choose from reading assignments that meet their comfort level.

SCIENCE

ELECTIVES

OPEN TO SENIORS ONLY

2610 [AP PHYSICS 1](#)

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2631 Chemistry 1 (Honors) with a grade of 93 or above and 2821 Algebra 2/Trigonometry (Honors).

AP Physics is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits.

Note: Students taking this course are required to take the AP Exam in May.

2612 PHYSICS 1

Honors, 1.0 Credit

Prerequisites: Departmental placement.

Physics 2612 is a study of mechanics, wave phenomena, and if time permits, electricity, and magnetism. The course is intended as a preparation for college-level study in science, but not exclusively for prospective science majors. Strong emphasis is placed on the development of mathematical analysis through experimentation and problem-solving skills as they apply to physics.

2614 PHYSICS 1

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement.

A study of mechanics, wave phenomena, electricity, and magnetism, Physics 2614 is intended as a preparation for college-level study in science, but not exclusively for prospective science majors. This course strongly emphasizes the application of mathematical skills and problem solving as it applies to Physics. The pace and depth of coverage are adjusted to meet the needs of the students.

2650 [AP PHYSICS 2](#)

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2610 AP Physics 1 with a grade of 76 or higher, 2612 Physics 1 (Honors) with a grade of 93 or above, and successful completion of 2821 Algebra 2/Trigonometry (Honors).

The AP Physics 2 course is an algebra-based, introductory college-level physics course. Students cultivate their understanding of Physics through inquiry-based investigations as they explore topics such as fluid statics and dynamics; thermodynamics with kinetic theory; PV diagrams and probability; electrostatics; electrical circuits with capacitors; magnetic fields; electromagnetism; physical and geometric optics; and quantum, atomic, and nuclear physics.

Note: Students taking this course are required to take the AP Exam in May.

SCIENCE

ELECTIVES

OPEN TO SENIORS ONLY [CONTINUED]

2640 AP CHEMISTRY

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2631 Chemistry 1 (Honors) with a grade of 93 or above, and successful completion of Pre-Calculus (2831 or 2832).

The AP Chemistry course provides students with a college-level foundation to support future advanced coursework in chemistry. Students cultivate their understanding of chemistry through inquiry-based investigations, as they explore topics such as: atomic structure, intermolecular forces and bonding, chemical reactions, kinetics, thermodynamics, and equilibrium. Created by the AP Chemistry Development Committee, the course curriculum is compatible with many Chemistry courses in colleges and universities.

Note: Students taking an Advanced Placement course are required to take the AP Exam in May.

2671 ANATOMY & PHYSIOLOGY

Honors, 1.0 Credit

Prerequisites: Acceptance based on academic performance in previous science courses, recommendations of Biology and Chemistry teachers.

This year-long course is designed to give students an understanding of the fundamental and principle concepts of human anatomy and physiology. Topics will begin with an overview of concepts introduced in the Biology 1 course with an emphasis placed on their function in the human body. Later topics will include an in-depth study of cytology, tissues, each major organ system and special senses. Assigned readings from the text, reserved readings, lecture notes, nightly homework, laboratory work and dissection will also be part of this course.

2672 ZOOLOGY

Honors, 1.0 Credit

Prerequisites: Successful completion of 2621 Biology 1 Honors (2621) and 2631 Chemistry 1 (Honors).

Students examine the major mammal categories and study their history and evolution. Instructors go through the physiology and anatomy of different mammal groups, and they demonstrate the techniques professionals use in mammal identification. Class discussions may also address mammal habitats and ecology.

TECHNOLOGY & ENGINEERING

ELECTIVES

OPEN TO SOPHOMORES, JUNIORS AND SENIORS

2715 EXPLORING COMPUTER SCIENCE

College Preparatory, 0.5 Credits

Prerequisites: None.

This course is designed to introduce students to the breadth of the field of computer science through an exploration of engaging and accessible topics. Rather than focusing the entire course on learning particular software tools or programming languages, the course is designed to focus on the conceptual ideas of computing and help students understand why certain tools or languages might be utilized to solve particular problems.

The goal of Exploring Computer Science is to develop in students the computational practices of algorithm development, problem solving and programming within the context of problems that are relevant to the lives of today's students. Students will also be introduced to topics such as interface design, limits of computers, and societal and ethical issues.

Malden Catholic incorporates tools and software that students have access throughout the school. Students learn how to navigate the cloud (OneDrive and/or Google Drive), use of browser applications, Google Classroom and new technologies as they arise.

2721 WEB DESIGN

Honors, 0.5 Credit

Prerequisites: None.

This one semester course will introduce students to the development and maintenance of Web pages using the Hypertext Markup Language and HTML editors. HTML coding and creating Web graphics will be emphasized. Introduction to key Web design concepts and principles. Students will be introduced to a variety of challenging hands on activities.

2731 PLTW: INTRODUCTION TO ENGINEERING DESIGN

Honors, 1.0 Credit

Prerequisites: None.

Project Lead the Way: Introduction to Engineering Design (IED) is a high school level course that is appropriate for students who are interested in design and engineering. The major focus of the IED course is to expose students to design process, research and analysis, teamwork, communication methods, global and human impacts, engineering standards, and technical documentation. IED gives students the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB-learning challenges students to continually hone their interpersonal skills, creative abilities and understanding of the design process. It also allows students to develop strategies to enable and direct their own learning, which is the ultimate goal of education.

The course assumes no previous knowledge, but students should be concurrently enrolled in college preparatory mathematics and science. Students will employ engineering and scientific concepts in the solution of engineering design problems. In addition, students use the most current issued 3D solid modeling design software package to help them design solutions to solve proposed problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges that increase in difficulty throughout the course. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

Note: Students taking this course are required to take the PLTW End of Completion Assessment.

TECHNOLOGY & ENGINEERING

ELECTIVES

OPEN TO SOPHOMORES, JUNIORS AND SENIORS [CONTINUED]

2732 PLTW: PRINCIPLES OF ENGINEERING

Honors, 1.0 Credit

Prerequisites: None.

Project Lead the Way: Principles of Engineering (POE) is a high school-level course of engineering. The course exposes students to some major concepts they will encounter in a post-secondary engineering course of study. Students have an opportunity to investigate engineering and high-tech careers. POE gives students the opportunity to develop skills and understanding of concepts through activity-, project-, and problem-based (APPB) learning. Used in combination with a teaming approach, APPB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem-solving skills based upon engineering concepts. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community.

Note: Students taking this course are required to take the PLTW End of Completion Assessment.

2733 PLTW: ENVIRONMENTAL SUSTAINABILITY

Honors, 1.0 Credit

Prerequisites: None.

In Project Lead the Way: Environmental Sustainability, students investigate and design solutions in response to real-world challenges related to clean and abundant drinking water, food supply, and renewable energy. Applying their knowledge through hands-on activities and simulations, students research and design potential solutions to these true-to-life challenges.

Note: Students taking this course are required to take the PLTW End of Completion Assessment.

2751 INDEPENDENT STEM RESEARCH

Honors, 0.5 Credits

Prerequisites: None.

In this first semester only course, students will apply the Methods of Scientific Investigation or the Engineering Design Process to identify and solve problems in science, technology, engineering, or mathematics. They will develop questions based on data or research, plan experimental design, and analyze data to form conclusions. Students will work individually to complete a research project and enter the project in a school-based innovation fair, which could lead to participation in a regional and/or state science competition for feedback from peers and community professionals. Students will also work individually to complete a research project and enter the project in a school-based innovation fair, which could lead to participation in a regional and/or state science competition for feedback from peers and community professionals.

Note: This course can be repeated for credit.

TECHNOLOGY & ENGINEERING

ELECTIVES

OPEN TO JUNIORS AND SENIORS [CONTINUED]

2791 VHS - VIDEO GAME DESIGN

College Preparatory, 0.5 Credits

Prerequisites: Administrative approval. This course is an introductory level class on video game design and creation that does not require previous background in computer programming.

The video game design course provides an opportunity for students to immerse themselves in the world of video game design and development. Students will explore conceptual and technical aspects of contemporary video game creation using Unity software, a robust and highly respected industry game development platform. This curriculum stems from the Unity Curricular Frameworks and includes three larger modules focused on game design theory, the major aspects of game creation including programming, art, production and design, and exploration of the conceptual and technical implementation of elements within those domains.

In the first module, students will begin by exploring the critical thinking behind game design theory, story and game creation, and develop their own unique non-digital game. In the second module, students will focus on key aspects of video game design, writing and implementing code in the Unity editor and implementing elements of art and production, as they use basic features to create an initial game in Unity. In the final module, students will explore advanced constructs of game development such as level design, cameras, lighting, and audio, as they complete a capstone video game project. Students will then peer review video games created by their classmates and use the iterative process to reflect on feedback provided on their own game and revise.

Over the course of the semester, students will be engaging in discussions around current trends in the game industry and the future of the field. There will be a strong focus on project management for technical projects such as video game creation. This course will require accurate and thorough documentation, including game design documents and a game developer's journal, as well as clear and consistent communication with classmates.

MATH

REQUIRED COURSES

All students are required to take four years (4.0 credits) of required Math courses to meet their graduation requirements. Students are required to have a compass, protractor, and a Texas Instruments TI-84 Plus Calculator.

ALGEBRA

2800 INTEGRATED MATH 1

Honors, 1.0 Credit

Prerequisites: Administrative placement.

This course is part of a two-part offering where students will complete three years of math content over the course of two years. In Integrated Math 1, students build and strengthen their skills in Algebra 1 for one third of the year, and Geometry topics for the remainder. Algebra 1 topics include the study of the fundamentals of algebra including the real number system and its properties, linear equations in one variable, systems of open sentences in two variables, operations on polynomials and rational expressions, factoring, radicals, the solution of quadratic equations. Geometry topics include the study of angle relationships, parallel lines, right triangles, quadrilaterals, congruent and similar polygons, circles, constructions and loci, coordinate geometry, the concepts of area and volume, and the study of logic through deductive proof.

2803 ALGEBRA 1

College Preparatory, 1.0 Credit

Prerequisites: Administrative placement.

Algebra 1 is a study of the fundamentals of algebra including the real number system and its properties, linear equations in one variable, systems of open sentences in two variables, operations on polynomials and rational expressions, factoring, radicals, the solution of quadratic equations, and an introduction to the concepts of function and coordinate geometry. The course also includes the solution of word problems and a review of arithmetic skills.

GEOMETRY

2813 GEOMETRY

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2803 Algebra 1 (College Preparatory) with a grade of 76 or above, or completion of 2800 Integrated Math 1 (Honors) with a grade below 76.

Geometry is designed for students who show high mathematical aptitude. The topics outlined in this course include the study of angle relationships, parallel lines, right triangles, quadrilaterals, congruent and similar polygons, circles, constructions and loci, coordinate geometry, the concepts of area and volume, and the study of logic through deductive proof. In addition, this course includes a review of some key Algebra 1 concepts as well as an introduction to Algebra 2. Students will write calculator programs to solve specific problems.

MATH

REQUIRED COURSES

ADVANCED ALGEBRA

2821 ALGEBRA 2/TRIGONOMETRY

Honors, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2813 Geometry (College Preparatory) with a grade of 76 or above.

This course takes an in-depth look at the notions of functions and relations, systems of equations in two and three variables, operations on polynomials and rational expressions, radicals and irrational numbers, sequences and series, complex numbers and polynomial functions, quadratic equations, exponents, logarithms, analytic geometry, and trigonometry.

2822 INTEGRATED MATH 2

Honors, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2800 Integrated Math 1 (Honors) with a grade of 76 or above.

This course is the second part of a two-part offering where students will complete three years of math content over the course of two years. After successful completion of 2800 Integrated Math 1, students complete topics in Geometry and proceed with Algebra 2, taking a deeper look at the notions of functions and relations, analytic geometry, logarithms and exponents, and a study of trigonometry in preparation for Pre-Calculus.

2824 ALGEBRA 2

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2803 Algebra 1 (College Preparatory) with a grade of 76 or above, or completion of 2813 Geometry (College Preparatory) with a grade below 76.

After an intensive review of the concepts covered in Algebra 1, and at a pace appropriate to the students at each level, this course proceeds to a deeper look at the notions of functions and relations, analytic geometry, logarithms and exponents, sequences and series, and a study of trigonometry.

2828 COLLEGE ALGEBRA

College Preparatory, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of either 2824 Algebra 2 (College Preparatory) or 2832 Pre-Calculus (Honors), with a grade below 76.

This is a fourth course option for students who have completed Algebra I, Geometry, and Algebra II, but are still struggling with high school mathematics standards essential for success in first year post-secondary mathematics courses required for non-STEM majors. The course is designed to serve as a bridge for high school students who will enroll in non-STEM post-secondary study and will serve to meet the high school fourth course graduation requirement. The course will meet the needs of college bound seniors who will not pursue STEM fields.

MATH

REQUIRED COURSES

PRE-CALCULUS

2831 PRE-CALCULUS/CALCULUS

Honors, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2821 Algebra 2/Trigonometry (Honors) or 2822 Integrated Math 2 (Honors), with a grade of 76 or above.

Pre-Calculus/Calculus supplements and extends the Algebra 2/ Trig (Honors) course and evolves into the calculus. Topics covered include elementary algebraic and transcendental functions as well as elements of discrete math. The calculus provides a thorough introduction to the concepts and applications of differential and integral calculus. Students prepare for the advanced placement test in this course by studying the topics suggested in the AP syllabus.

2832 PRE-CALCULUS

Honors, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of either 2821 Algebra 2/Trigonometry (Honors) or 2822 Integrated Math 2 (Honors), with a grade below 76.

A preparation for the study of calculus, this course focuses on the concept of function as exemplified by algebraic, polynomial, logarithmic, exponential, and circular (trigonometric) functions, and by functions of the natural numbers (sequences and mathematical induction). Pre-Calculus includes an extensive coverage of analytic geometry and, if time allows, polar coordinates, conic sections, discrete mathematics, and an introduction to differential calculus.

CALCULUS

2840 AP CALCULUS BC

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2831 Pre-Calculus/Calculus (Honors) or 2832 Pre-Calculus (Honors), with a grade of 93 or above.

Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Note: Students taking this course are required to take the AP Exam in May.

2841 AP CALCULUS AB

Advanced Placement, 1.0 Credit

Prerequisites: Departmental placement. Successful completion of 2832 Pre-Calculus (Honors) with a grade of 93 or above.

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Note: Students taking this course are required to take the AP Exam in May.

MATH

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2890 [VHS - AP STATISTICS](#)

Advanced Placement, 1.0 Credit

Prerequisites: Departmental approval. Successful completion of 2831 Pre-Calculus/Calculus (Honors) or 2832 Pre-Calculus (Honors), with a grade of 93 or above.

Statistics is the equivalent of many first-year college courses. Students prepare for the Advanced Placement Test in this course by studying all topics suggested in the AP Statistics syllabus: It covers four principal conceptual themes: observing patterns and departures from them, planning a statistical study, producing models using probability theory and simulation and confirming models using statistical inference. Topics include defining and organizing data, averages and variation, regression analysis and correlation, basic probability theory, probability distribution functions, binomial and normal distributions, sampling distributions, estimation, hypothesis testing, inferences, correlation coefficients, deviation and confidence intervals. The TI-84 Plus calculator will be used extensively through this course.

Note: Students taking this course are required to take the AP Exam in May.

2891 [VHS - DIFFERENTIAL CALCULUS](#)

Honors, 0.5 Credits

Prerequisite: Administrative approval.

This semester course is designed for students interested in an introduction to college mathematics. The course will cover topics including a review of core pre-calculus topics, limits and continuity, derivatives and applications of derivatives. Students will make connections among these topics as well as solve real-life applications. An emphasis will be placed on mathematical vocabulary and explanations of solutions in writing.

2892 [VHS - NUMBER THEORY](#)

Honors, 0.5 Credits

Prerequisites: Administrative approval. Successful completion of 2803 Algebra 1 with a grade of 93 or above, or 2800 Integrated Math 1, with a grade of 76 or above.

Number Theory began as a play area for a few mathematicians that were fascinated by the curious properties of numbers. Today, it has numerous applications from pencil and paper algorithms, to the solving of puzzles, to the design of computer software, to cryptanalysis (a science of code breaking).

Number Theory uses the familiar operations of arithmetic (addition, subtraction, multiplication, and division), but more as the starting point of intriguing investigations than as topics of primary interest. Number Theory is more involved in finding relations, patterns, and the structure of numbers.

This course will cover topics such as the Fundamental Theorem of Algebra, Euclid's Algorithm, Pascal's Triangle, Fermat's Last Theorem, and Pythagorean Triples. We finish the course with a linkage of Number Theory to Cryptography.

P.E./HEALTH

ELECTIVES

OPEN TO JUNIORS AND SENIORS

2903 PHYSICAL EDUCATION**PASS/FAIL, 0.5 Credits***Prerequisites: None.*

In our Junior-Senior Physical Education elective, students engage in a variety of physical activities that enable them to meet individual health-related and skill-related fitness standards that are challenging and self-directed. Emphasis will be placed on concepts of personal fitness and knowledge to achieve and maintain a healthy level of physical fitness. Students will participate in a variety of sport theme activities that can be used for lifetime recreation and personal fitness. Students will engage in both individual and team activities.