Mason High School Specialty Classes

**Specialty Course Applications are online at mhscounseling.weebly.com/specialty**

**Applications due January 16, 2020**

**AP Biology- Collins** 3 trimester course, Grade level: 10-12 Prereq: Successful completion of Biology, Chemistry strongly encouraged, and science teacher recommendation.

This course is the equivalent of a college introductory biology course. It will enrich the student's knowledge of biology and help develop laboratory skills. It is based on the national AP Program and will prepare students to take the AP test in May. This course has four big ideas:

1. The process of evolution drives the diversity and unity of life.

2. Biological systems utilize free energy and molecular building blocks to grow, to reproduce, and to maintain dynamic homeostasis.

3. Living systems store, retrieve, transmit, and respond to information essential to life process.

4. Biological systems interact, and these systems and their interactions possess complex properties.

There will also be a focus on the following science practices: concept explanation, visual representations, questions and methods, representing and describing data, statistical tests and data analysis, and argumentation. All laboratory work will focus on science as a process and will be student-directed, inquiry-based. A SUMMER ASSIGNMENT is a REQUIREMENT OF THE COURSE. Students will be asked to complete this assignment during the month of August.

**AP Calculus- Bosman** 3 trimester course, Grade Level: 11-12 Prereq: B or better in PC Functions & PC Trig AND teacher recommendation

Advanced Placement Calculus is a yearlong course of study on the two main topics of calculus: the derivative and the integral. A study of limits is also included along with applications of derivatives and integrals. The rigorous pace of this class will demand a serious commitment of time outside of school. The curriculum is designed to prepare students for the AP Calculus AB exam in May, possibly earning college credit. A REQUIRED SUMMER ASSIGNMENT WILL BE GIVEN TO STUDENTS THE LAST WEEK OF SCHOOL. AN ASSESSMENT OF THE REQUIRED ASSIGNMENT WILL BE ADMINISTERED THE FIRST WEEK OF CLASS.

**AP Chemistry- Collins** 3 trimester course, Grade Level: 10-12 Prereq: Successful completion of Chemistry A, Algebra II, and science teacher recommendation

Advanced Placement Chemistry is a college level course for those interested in pursuing a career in the sciences. This class is taught at a level equivalent to a first year college chemistry course. This rigorous course covers four big ideas outlined by the AP College Board:

1. Scale, proportion, and quantity

2. Structure and properties

3. Transformations

4. Energy

Laboratory work is a necessary and vital component of this class and will be conducted at least weekly. In the laboratory setting students will be asked to make connections and show evidence of higher level thinking skills. A SUMMER ASSIGNMENT is REQUIRED for this course. Students will be asked to complete this assignment during the month of August.

**AP Computer Science A- Kato** 3 trimester course, Grade Level: 10-12 Prereq: Algebra I

AP Computer Science A introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. This course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The curricular focus in this course is problem solving and object-oriented programming.

**AP Computer Science Principals- Kato** 3 trimester course, Grade Level: 10-12 Prereq: Algebra I

AP Computer Science introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of date (data structures), approaches to processing data (algorithms). Analysis of potential solutions, and the ethical and social implications of computing. This course emphasizes both object-oriented and imperative problem solving and design. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems.

**AP English Literature & Composition- Mills & Stimers**  3 trimester course, Grade: 12 Prereq: B in HWL OR writing sample

(replaces English 12A & 12B)

This course emphasizes intensive study of literature and production of analytical writing. It prepares highly motivated students for college-level English courses. Strong scores on the AP exam may also enable students to earn college credit. The course focuses on the study of literature by genre: drama, poetry, fiction, and nonfiction. Students write a formal research paper and present their findings in a symposium with other students who have worked on related topics. SUMMER READING IS REQUIRED. AN ASSESSMENT OF THE READING OCCURS THE FIRST WEEK OF CLASS.

Applicants who have not taken Honors World Literature in the junior year must complete a specialty course application AND sit for a timed writing performance in room 57 by January 18, 2019.

**AP US Government & Politics- TBD** 3 trimester course, Grade Level: 10-12 Prereq: B average in soc studies courses AND teacher rec

(replaces U.S. Civics)

This year long course is an introductory college level study of U.S. Government, including the Constitution, branches of government, political parties, and political issues. This course will prepare highly motivated students for college level social science courses with the possibility of earning college credit by taking the A.P. Exam and earning an acceptable score (based on criteria set at each university).

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**AP Physics 1- Jones** 2 trimester course, Grade Level: 11-12 Prereq: Physics A, Physics B, AND Physics teacher recommendation

AP Physics is designed to be the equivalent of an introductory first semester math-based college freshmen course in Physics. Units of study include mechanics, momentum, energy, circular motion, gravitational forces, oscillations and mechanical waves, and electric circuits. The ultimate goal of the course is to prepare students to be successful on the AP Physics 1 exam at the end of the year.

**AP Statistics- Jones** 3 trimester course, Grade Level: 10-12 Prereq: Precalculus course with teacher rec OR B or better in Alg 2 with teacher rec

AP Statistics is a yearlong course covering analyzing data, planning a study, producing models, and statistical inference. Students who successfully complete the AP exam will receive credit and/or advanced placement in a one-semester college statistics course.

**AP US History- Guysky** 3 trimester course, Grade Level: 10-12 Prereq: B average in social studies classes AND teacher recommendation

(can replace US History)

This year long course is an introductory college level study of the history of the United States, ranging from the Native American societies in the Americas before Columbus to the United States in the post-Cold War world. Students will gain the analytic skills and factual knowledge necessary to deal critically with important topics and issues in U.S. history. This course will prepare highly motivated students for college level social science courses with the possibility of

earning college credit by taking the A.P. Exam and earning an acceptable score (based on criteria set by your chosen university). A REQUIRED SUMMER ASSIGNMENT WILL BE GIVEN TO STUDENTS THE LAST WEEK OF SCHOOL. AN ASSESSMENT OF THE REQUIRED ASSIGNMENT WILL BE ADMINISTERED THE FIRST WEEK OF CLASS.

**AP World History– Martel** 3 trimester course, Grade Level: 10-12 Prereq: B+ average in social studies classes AND teacher recommendation

(can replace World History)

This year long course is an introductory college level study of World History, ranging from the development of civilization to the present. Students who successfully complete this course will gain a deeper understanding of the development of world cultures and their interaction. This course will prepare highly

motivated students for college level social science courses with the possibility of earning college credit by taking the A.P. Exam and earning an acceptable score (based on criteria set by your chosen university). SUMMER ASSIGNMENT HANDED OUT THE LAST WEEK OF SCHOOL IS REQUIRED. AN ASSESSMENT OF THE READING IS TAKEN THE FIRST WEEK OF CLASS.

**Honors American Literature- Hastings** 2 trimester course, Grade Level: 10 Prereq: B- in Fresh English, writing sample

(replaces English 10A & 10B)

This course studies American Literature from its early beginnings to the present. Students will read, analyze, and critique all forms of literature, including poetry, drama, and several novels. The accelerated pace of this class demands a serious commitment to outside reading. The course emphasizes independent reading and analytical writing, providing academic challenge to the serious student. A sophomore student in Honors American Literature must receive a final grade of B- or above in each trimester before advancing to Honors World Literature as a junior. No sophomore may enter Honors American Literature after the first trimester.

**Students interested in HAL must complete a specialty course application AND complete a writing sample at one of the following times:**

Tuesday, January 21, 2:40 pm, Room 56 Tuesday, January 28, 7:00 am, Room 56

Thursday, January 23, 2:40 pm, Room 54 Tuesday, January 28, 2:40 pm, Room 54 & 56

**Honors World Literature- Cunningham** 2 trimester course, Grade Level: 11 Prereq: B- in English OR B- in HAL, writing sample

(replaces English 11A & 11B)

This class will be taken in the junior year as a prerequisite for the Advanced Placement English class available to seniors.

Students will do an intensive and in-depth study of World Literature. Students will be challenged by extensive reading and writing assignments. To remain in the honors program as a junior, a student must earn a B- or above in the previous trimester. No junior may enter Honors World Literature after first trimester.

**Students interested in HWL must complete a specialty course application AND complete a writing sample at one of the following times:**

Tuesday, January 21, 2:40 pm, Room 56 Tuesday, January 28, 7:00 am, Room 56

Thursday, January 23, 2:40 pm, Room 54 Tuesday, January 28, 2:40 pm, Room 54 & 56

**School Store- Chaney** 1 or 2 trimester course, Grade Level: 11-12, 10 if course is open Prereq: C+ in Marketing or Accounting & Resume

This course is for students who apply and are selected on the basis of completing prerequisite courses, daily attendance and participation in the required class, as well as academic performance. This class will be student driven and will run the day to day operations of our school store. Attendance and participation is expected. Skills learned will be hands-on accounting, financing, sales, marketing, promotion, and management.

Students that are enroll in WTC and School Store must be willing to take PM WTC.

**Students interested in joining School Store must submit resume to Mr. Chaney in room 43 by January 18, 2019.**