

SMMHS 10th Grade Course Descriptions, updated March, 2017

Geometry is a course that uses problem situations, physical models, and appropriate technology to investigate geometric concepts, relationships, and systems. Problem-solving situations provide all students an environment that promotes communication, engages student reasoning, and fosters connections within mathematics, to other disciplines, and to the real world. Students will use physical models to represent, explore, and develop abstract concepts. The use of appropriate technology will help students apply mathematics in an increasingly technological world. The concepts/topics emphasized in the course include measurement, geometric patterns, coordinate geometry, two- and three- dimensional figures, transformational geometry, congruence, similarity, and right triangle trigonometry.

Honors Geometry covers the same curriculum as Geometry, but in more depth. Students are assessed at a deeper level and are required to complete projects that involve open-ended investigations, constructions, and the application of constructions to develop new mathematical concepts. Non right triangle trigonometry is included.

Algebra II stresses the learning of mathematical processes in order to model real world situations. The topics studied are equations, inequalities, linear programming, quadratic equations, parabolas, complex numbers, polynomial functions, exponential and logarithmic functions, radical functions, trigonometric functions, sequences and series, and probability and statistics. This goal is to further students' understanding of mathematics and prepare them for the next step in their mathematical journey. Algebra II one of the most pivotal courses in preparing for the ACT and SAT.

Honors Algebra II covers the same curriculum as Algebra 2, but in more depth. Students will encounter advanced types of problems that stretch beyond the standard Algebra II curriculum. Students investigate mathematical patterns and connections as well as real world applications. Students are assessed at a more advanced level and are required to complete investigative projects.

Honors Precalculus is a course designed for students who have completed Algebra II who wish to be challenged with strong mathematical content. The course includes the exploration of the key characteristics of functions, sequences and series, trigonometry, logarithms, and conics. Throughout the course, students will complete MYP program projects as well as become familiar with the I.B. Diploma Programme method of grading.

French 3 is a course where students continue their study of the language and culture. Grammar topics include a study of the 2 past tenses and an introduction to the subjunctive. Students will continue the study of vocabulary with the goal of improving their speaking, reading and writing skills. Cultural artifacts including works of art, newspaper articles, and video clips will be used in the study of Francophone culture. This class is recommended for students who do not plan to continue their study of French in the Diploma Program.

Honors French 3 is a rigorous course designed for students who have advanced skills in reading, writing, and speaking. The goal of this course is to improve those skills through a study of advanced grammar and vocabulary. Students will exercise their speaking skills through dialogues, debates, and oral presentations. By reading short stories and excerpts of novels students will strengthen their reading skills and continue their study of Francophone culture. This fast paced course is designed for students who plan to continue their study of French in the IB Diploma Program in 11th & 12th grade.

German 3 is a course where students continue their study of the language and culture. Grammar topics include a study of the 2 future tenses and an introduction to the subjunctive. At the end of this class the majority of the systemization of the target language will be completed. Students will continue the study of vocabulary with the goal of improving their speaking, reading and writing skills. Cultural artifacts including newspaper articles, short stories and video clips will be used in the study of German culture.

Spanish 3 is a course where students continue their study of the language and culture. Grammar topics include a study of the 2 past tenses and an introduction to the subjunctive. Students will continue the study of vocabulary with the goal of improving their speaking, reading and writing skills. Cultural artifacts including works of art, newspaper articles, and video clips will be used in the study of Hispanic culture. This class is recommended for students who do not plan to continue their study of Spanish in the Diploma Program.

Honors Spanish 3 is a rigorous course designed for students who have advanced skills in reading, writing, and speaking. The goal of this course is to improve those skills through a study of advanced grammar and vocabulary. Students will exercise their speaking skills through dialogues, debates, and oral presentations. By reading short stories and excerpts of novels students will strengthen their

reading skills and continue their study of Hispanic culture. This fast paced course is designed for students who plan to continue their study of Spanish in the IB Diploma Program in 11th & 12th grade.

Honors English 10 Students read works from different genres, time periods, and cultures. Our study of world literature is meant to equip students with a more global perspective--a perspective that emphasizes the common issues of humankind. In addition, students will focus on improving communication skills, both written and oral, through the study of the principles of composition and rhetoric.

AP English Language and Composition is a rigorous, college level course that engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer's purposes, audience expectations, and subjects, as well as the way genre conventions and the resources of language contribute to effectiveness in writing. Because this course offers the possibility of obtaining college credit, students will be expected to perform at a higher level. Students take a College Board AP exam for college credit in May--exam fee \$92. Students selecting AP courses should have an A or B in H English 9 and their 9th grade social studies course and must sign a contract with the teacher in the spring before 10th grade.

Chemistry 1 is a laboratory science course in which students investigate the composition of matter and the physical and chemical changes it undergoes. Students use scientific process skills to study the fundamental structure of atoms, the way atoms combine to form compounds, and the interactions between matter and energy. Students will be required to design several of their own lab procedures of increasing difficulty and complete formal lab reports. Embedded standards for Inquiry, Mathematics, and Technology & Engineering are taught in the context of the content standards for Atomic Structure, Matter and Energy, and Interactions of Matter.

Honors Chemistry 1 Pre or Co-requisites: Algebra II. Honors Chemistry I covers content listed above in Chemistry description. The level of mathematics required will be more advanced than in Chemistry. Faster pace and additional content covered.

Computer Applications is a computer technology course where students learn how to use advanced Microsoft Word processing features, powerful presentation skills in Microsoft PowerPoint and how to perform worksheet calculations and manipulate spreadsheets using Microsoft Excel. These skills will be immediately useful in completing assignments for other classes as well as the skills needed to complete their Personal Presentation. 0.5 credit, 1 semester

Broadcast Media/Journalism is a course designed to give students real world film journalism and production experiences with hands-on learning in the basics of camera operation, lighting, editing, audio, and livestream production technology. Students learn basic journalism skills including, how to write journalistic pieces with clarity and impact, how to structure an effective interview, and how ethics impact the job of a journalist. Students use their knowledge and production design principles to script/produce a weekly school news program, cover live school events, and script/produce short documentary-style films. Although not a prerequisite, this course will provide a solid foundation for students interested in taking the DP Film Studies course their junior and senior year. 0.5 credit, 1 semester

Honors World History & Geography– Students study the history of humankind with a more concentrated focus from the Renaissance to present day. Students will utilize different methods that historians use to interpret the past, including points of view and historical context. Working with both primary and secondary sources will be emphasized as will the study of how Historians construct their interpretations of the past.

AP World History is a rigorous, college-level course structured around five themes and six different chronological periods from ca. 8000 BCE to the present where students develop historical thinking skills that will prepare them to better understand their place in an increasingly globalized and diverse world. Extensive reading of primary sources and textbook expected. Individual and group projects, essay writing, small groups and seminars utilized. Because this course offers the possibility of obtaining college credit, students will be expected to perform at a higher level and to develop a greater capacity and ability to think and reason in a deeper, more systematic way. Students take a College Board AP World History exam for college credit in May--exam fee approximately \$92. Students selecting AP courses should have an A or B in H English 9 and their 9th grade social studies course, and must sign a contract with the teacher in the spring before 10th grade.

Personal Finance is a course designed to inform students how individual choices directly influence occupational goals and future earnings potential. Real world topics covered will include income, money management, spending and credit, as well as saving and investing. Students will design personal and household budgets; simulate use of checking and saving accounts; demonstrate

knowledge of finance, debt, and credit management; and evaluate and understand insurance and taxes. This course will provide a foundational understanding for making informed personal financial decisions. 0.5 credit -1 semester