

# GRANDVIEW PREPARATORY UPPER SCHOOL CURRICULUM OVERVIEW

GRADES 9 THROUGH 12

DEPARTMENT OF ENGLISH	DEPARTMENT OF HISTORY	DEPARTMENT OF MATHEMATICS <i>By Placement Exam</i>	DEPARTMENT OF SCIENCE	DEPARTMENT OF FOREIGN LANGUAGE <i>By Placement Exam</i>	FINE ARTS/PE DEPARTMENTS	
<p><b>ANCIENT &amp; MEDIEVAL LITERATURE</b> Students develop analytical reading and writing skills through the study of selected novels, poems and plays. Major works include: <i>Oedipus the King, Antigone, The Odyssey, Beowulf, The Once and Future King, Much Ado About Nothing, and Oliver Twist</i>. Current readings include the three volumes of Tolkien's <i>Lord of the Rings</i>. The course also develops a thorough knowledge of Greek and Roman mythology and parallels to the Ancient and Medieval History course. Students explore different heroic ideals of the past and consider what heroism means today.</p>	<p><b>ANCIENT AND MEDIEVAL HISTORY</b> This course explores the roots of our society. Students will examine the Stone Age, the civilizations of Mesopotamia and Egypt and the experiments with democratic government in Greece and Rome. The course continues through the medieval era and particularly focuses on how belief systems, both religious and political, interact with quests for truth, a just society and individual happiness. Study skills instruction and project-based activities will help students develop a better understanding of modern issues</p>	<p><b>ALGEBRA I</b>-This course provides a rigorous and in-depth study of algebra, emphasizing deductive reasoning skills as a foundation for more advanced mathematics courses, and in the development of the skills necessary to solve mathematical problems. The course encompasses, but is not limited to, the following topics: operations and properties of the real number system, algebraic and graphical solutions to first degree equations and inequalities, relations and functions, operations with polynomials including all forms of factoring, quadratic equations, and applications to real world problems.</p>	<p><b>BIOLOGY</b> Through laboratory experiments, activities, lectures, films, and the use of the latest available technology, students in Biology at Grandview Preparatory School will learn about living organisms. Problem solving, the use of scientific literature, and data synthesis are stressed. The course is enriched by an appreciation of the connections between science and the humanities. During the first semester, molecular biology will provide an essential foundation to further biological study. Students will investigate geochemicals, cells, and energy transfer in living systems, and genetics. Evolution is the theme of the second semester; an emphasis will be placed on the development of the human organism. Students will begin with rudimentary life forms and advance accordingly, examining organisms and populations.</p>	<p><b>SPANISH I</b> This course introduces non-Spanish speaking student to the four language skills (listening, speaking, reading and writing) but will focus primarily on listening and speaking skills through a programmed immersion in situations requiring functional grammar and vocabulary. This includes the present tense and an introduction to the Past tenses, i.e. preterite and imperfect. Knowledge of the institutions and customs of many Spanish-speaking countries is also gained from the text and its correlated materials.</p>	<p><b>FINE ARTS</b> define our humanity and an aesthetic education is essential to the development of a well-rounded student. Course offerings include fundamental classes of instruction in studio art and general music, with additional offerings that may include, basic theatrical studies, band, musical theatre and dance. Courses will evolve sequentially to advanced instruction in sculpture, photography, ceramics, drawing and design, painting, studio art, AP Studio art, dance, and drama. In addition to art and music history courses. The Fine Arts are taught as extensions of the individuality of the student within a structured system so as to tap into the creativity of the student within a historical framework of artistic reference. The development of fine arts appreciation and skills is essential to the education of the "whole" student and to that end; Fine Arts are interfaced across the curriculum</p>	
<p><b>WRITING ACROSS THE CURRICULUM</b> This program continues through the upper school years. Students are encouraged to think critically and independently and to use their learned skills to support and document research information. At each level, literature has been selected to complement cross-disciplinary studies to further underscore our commitment to integrated learning.</p>	<p><b>WORLD LITERATURE</b> The students will develop an understanding of the human condition by examining issues that transcend both time and culture. Students delve into topics such as love, human nature, justice, and coming of age by reading at both a whole class level and within small group settings. Students write informal, personal responses to literary selections in addition to formal compositions, including a term paper, related to each theme. Works include <i>Like Water for Chocolate, Summer of My German Soldier, Gone With the Wind, Rosie in the Present Tense, A Separate Peace, Lord of the Flies, Dr. Jekyll and Mr. Hyde, Night, Macbeth, The Learning Tree, To Kill a Mockingbird, and A Tree Grows in Brooklyn. There is an honors section available that includes a unit on Justice &amp; Injustice with readings of The Count of Monte Cristo and A Tale of Two Cities.</i></p>	<p><b>EUROPEAN HISTORY</b> Students will survey the major social, intellectual, and economic trends of the world from the beginning of the Renaissance in Florence in the fourteenth century to the advent of the nuclear age. Attention will be paid to the interaction of the Western (occidental) and Eastern (oriental) hemispheres as they struggle to define their individual identities amid an ever-changing world. <i>HONORS and AP are available for students with appropriate averages and standardized test scores, as well as departmental and administrative approval.</i></p>	<p><b>GEOMETRY</b> This course provides a rigorous in-depth study of deductive, Euclidean, and coordinate geometry, including proofs, parallelism, and congruence, polygons, circles, constructions, and right angle trigonometry. The course will be taught using the formal language of mathematics, and problem solving will be a major emphasis of this course. <i>Honors sections are offered accordingly.</i></p>	<p><b>CHEMISTRY</b> This course deals with the nature and the physical laws of matter. Investigation into a variety of experimental techniques teaches students about the particulate theory of matter, and leads into a consideration of atomic substructure, the periodic classification of elements, and chemical bonding. Students will explore the relationships between the quantities of substances that participate in chemical reactions in the solid, liquid, and gaseous states. The meanings of the terms: acid, base, alkali, and salt, will be defined and demonstrated. Although the course will take as its primary emphasis physical chemistry, some organic chemistry will also be studied. Extensive exploration of technological supporting materials will be utilized.</p>	<p><b>SPANISH II</b> This course is offered to non-Spanish speaking students who have successfully completed Spanish I. Emphasis is placed on the continuum of the skills acquired in Spanish I and highlights pronunciation, vocabulary building, dialogues, grammatical concepts (present, past and future tenses with an introduction to the subjunctive) reading selections. Included in the curriculum are cultural readings, word studies, writing selections, as well as poems and songs through the use of correlated materials.</p>	<p>The Department of <b>PHYSICAL EDUCATION and LIFE MANAGEMENT</b> ascribes to the philosophy of a sound mind in a sound body. The department offers a varied program of activities designed to develop in the student a positive attitude toward himself/herself as a physical being. Life Management focuses on the education of the student in the maintenance of mental and physical health. Learning to respect others is germane to this overriding philosophy, and it is hoped that our program of lifetime sports instruction and wellness information will foster healthy adults with a more refined sense of sportsmanship, responsibility, and leadership.</p>
<p><b>AMERICAN LITERATURE</b> This course is both a survey of American literature and an intensive writing course. Readings begin with a contemporary work, then moves to colonial and revolutionary America. This is designed to reinforce the American History course. Students also examine the romantic or transcendental ideal of the self, prominent in the early nineteenth century. Students read fiction writers Poe, Irving, and Hawthorne; philosophers Emerson and Thoreau, and the poet Whitman. The students continue by examining writers Twain, Dickinson, Cather, Frost, Hemingway, Fitzgerald, Miller and Gaines. War, racial problems and the individual's conflict with society are among the themes. <i>Honors students will select one additional reading each quarter.</i></p>	<p><b>United States History</b> This course provides a thorough survey of the political, intellectual, social, and economic history of the United States of America from the earliest European exploration and Native American presence to the present. Particular focus will be placed upon the development of American institutions and cultural traditions as reflective of the diversity of the country's origins. From pre-colonialization to its status as a "Superpower", the history of the United States will be examined in conjunction with the literature of various periods through an interdisciplinary approach. <i>HONORS and AP are available for students with appropriate averages and standardized test scores, as well as departmental and administrative approval.</i></p>	<p><b>ALGEBRA II</b>-This course studies, in greater depth, topics first introduced in Algebra I, and progresses toward more advanced techniques in algebra. There is an emphasis on the functional relationship between variables and on the practical application of algebraic skills. Topics covered include: linear and quadratic functions, systems of equations, exponential and logarithmic functions, irrational functions, algebraic fractions, conic sections, higher degree polynomials, sequences and series, probability and counting, introductory trigonometry, and analysis of three dimensional conic sections. <i>Geometry may be taken concurrently with permission of department. Honors sections are offered accordingly.</i></p>	<p><b>PHYSICS</b> This course covers five main areas: mechanics, waves, and optics, electricity and magnetism, and modern physics (to include the Chaos and Complexity theories). Each unit of the course is designed to provide the student with a solid foundation in traditional physics, with the emphasis on practical investigation and the numerical and technological analysis of results. As the course develops, the student will come to recognize the relationships among the topics and will come to appreciate the unity of the subject.</p>	<p><b>SPANISH III</b> is designed for students who have successfully completed the second year of Spanish at the Upper School level or its equivalent. Continued emphasis is placed on the student's ability to use Spanish effectively in a wide variety of situations, both written and spoken. The development of skills in extended speaking, writing, listening, and reading is accompanied by a systematic review of grammar and an emphasis on vocabulary acquisition.</p>	<p><b>PHYSICAL FITNESS &amp; LIFE MANAGEMENT (.5/.5)</b> Physical fitness is a course designed to enhance a student's ability to participate in, perform in, and take enjoyment in-group and individual athletic activities. The course includes, but is not limited to, the following activities: aerobic exercise, anaerobic exercise, team sports, and strategy of sports, body strengthening, muscle stretching, and personal hygiene. The course also includes a fundamental study of the rules and techniques of individual sports. The life management aspect of this course is designed to enhance a student's knowledge and understanding of his/her physical, emotional, and mental functions. The course includes, but is not limited to, the following topics: drugs, alcohol, tobacco products, nutrition, diet, physical fitness activities, peer pressure, career choices, problems of society, time management, money management, cultural differences, family structure, communicable diseases, and non-communicable diseases.</p>	

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	<p><b>BRITISH LITERATURE</b> An introduction to the masterpieces of the British tradition. Readings begin with <i>Brave New World</i> and go back to the Anglo-Saxon epic <i>Beowulf</i>. Readings continue with <i>The Canterbury Tales</i>, <i>Hamlet</i>, and <i>Paradise Lost</i>. Students focus on the individual's quest for a personal set of values as explored in Romantic and Victorian poetry and fiction. Novels can include <i>Frankenstein</i>, <i>Jane Eyre</i>, <i>David Copperfield</i>, and <i>Dracula</i>. The course also samples modern writers such as Yeats, Woolf, Auden, Thomas, Stoppard and Walcott. <i>Honor students will read additional selections.</i></p>	<p><b>United States Government (.5 credit)</b> This semester course introduces students to the parameters and structure of the United States government in addition to its historical foundation as provided by the United States Constitution. Students will come to understand the checks and balances guaranteed by three branches of government, and they will examine the structure of state and local governmental systems as well. <b>Economics (.5 credit)</b> This course introduces students to the elemental principles of economic theory as they impact individuals as citizens and as members of society at large. An emphasis will be placed upon consumerism and upon mastery of economic tools, which will enable consumers to analyze and react to relevant economic issues.</p> <p><i>HONORS and AP are available for students with appropriate averages and standardized test scores, as well as departmental and administrative approval.</i></p>	<p><b>TRIGONOMETRY/PRE CALCULUS</b> This course emphasizes both the study of circular trigonometric functions and their applications and the study of the functions and other skills necessary for the comprehension of calculus. The course encompasses, but is not limited to: circular functions, trigonometric identities, graphs of trigonometric functions, particular and general solutions of trigonometric equations, solutions of right and oblique triangles, polynomials, rational exponential inverses, logarithmic functions, sequences and series, theory of limits, vectors, conic sections, and matrix algebra. <i>Honors sections are offered accordingly.</i></p>	<p><b>TOPICS IN SCIENCE</b> This elective science course will vary in focus annually to accommodate the needs and the desires of our students. Topics of concentration may include: Marine Biology, Environmental Science I and II, Experimental Biology, Physics of Aerodynamics and Flight.</p> <p><b>MARINE SCIENCE</b> This elective science course requires that all students successfully complete th scuba diving certification segment. This enables students to explore first hand how marine plants, animals, fish, and coral interact in the underwater environment that exists in our local marine ecosystem. Students learn to appreciate our environment and to be a careful and non-destructive observer with real knowledge of fish identification and marine habitat.</p>	<p><b>SPANISH IV</b> Readings in Spanish and Latin American literature form the basis of this advanced course for students who have successfully completed Spanish III or its equivalent. In addition to analyzing the themes and styles of poetry, short stories, plays, and novels, students will examine the historical and cultural context of literary works. Fine points of grammar will be reviewed, but the course will treat language less as an object of study than as a living medium of cultural communication.</p>	
	<p><b>AP ENGLISH</b> <i>Pre-requisite: Consent of department and administration upon review of writing performance and standardized test scores.</i></p> <p><b>ENGLISH SKILLS</b> This courses involves intensive grammar instruction, reading, writing instruction, and essay evaluation. Students will interpret author's point of views and story structures through short stories and descriptive literature.</p>	<p><b>Humanities</b> This historical introduction to humanities provides the student with a basic foundation to analyze the ancient question of the meaning of human life. Students are introduced to various philosophical, religious and mythological perspectives and will formulate reasoned position papers related to a variety of works. The course goal is to provide a framework from which the student articulates his or her own views in light of both ancient and modern worldviews.</p>	<p><b>INTERMEDIATE ALGEBRA:</b> Intermediate algebra offers an opportunity to those students who need additional review of Algebra II and some introduction to pre-calculus topics in preparation for college algebra.</p> <p><b>COLLEGE ALGEBRA</b> This course reinforces college level algebra in preparation for college level math coursework. Students will reinforce geometry and trigonometry skills.</p>	<p><b>AP SCIENCE: BIOLOGY, CHEMISTRY, PHYSICS</b> - All Advanced Placement courses follow the syllabus outlined by the College Board and require the student to sit for the nationwide examinations in the spring. <i>Prerequisite: Departmental and administrative approval is required.</i></p>	<p><b>AP SPANISH</b> This is an advanced course for students who have successfully completed Spanish III or its equivalent. Emphasis is placed on the development of speaking, listening, writing, and reading skills in preparation for the Advanced Placement Spanish Language Exam, which will be given in May. The discussion of short stories, poetry, drama, and journalistic selections is accompanied by a systematic review of Spanish grammar and usage. <i>Prerequisite: Consent of Department and Administration</i></p>	
	<p><b>ELECTIVE COURSE OFFERINGS</b> may include Journalism, Fundamentals of Writing, Writer's Workshop, Women's Literature, Speech and Debate, Playwriting, Celtic Studies and others.</p>	<p><b>MUSIC APPRECIATION/HISTORY (.5 credit/)</b> The ancient Greeks claimed that music could control the mind, a power that dictators and manipulators seek to this day. Eight centuries ago, Europe's wandering troubadours wrote love songs whose sentiments and styles are found in our own rock classics. Music History, a required freshman course, explores this musical heritage and examines how composers and performers reflect the culture of their time. The course highlights developments from Pythagoras to Mozart to the Romantic Rebellion to Twentieth Century innovations. The course covers changes in notation, form and performance. Informed listening to key works will complement the biographical and analytical material.</p>	<p><b>CONSUMER MATH</b> This course will enable students to develop knowledge and skills in problem solving, communication, reasoning, and connections as related to consumer services and personal financial management. Students will use mathematical problem-solving strategies to solve problems relating to consumer needs, personal money management, and financial management. Students will use mathematical skills to derive formulas to describe data and solve problems.</p> <p><b>TOPICS OF MATH</b> This course will vary in structure and focus on a yearly basis, according to the needs and the desires of the students. Possible course focuses include: Probability and Statistics, Euclidean Geometry, Logic, Computer Mathematics, and Functions.</p>	<p><b>ANATOMY &amp; PHYSIOLOGY</b> This is an honors course that will enable students to develop an understanding of the relationships between the structures and functions of the human body. This course will involve laboratory investigations of cells, tissues, skeletal system, nervous system, cardiovascular system, lymphatic system, immune system, respiratory system, digestive system, urinary system, endocrine system, reproductive systems and human development. Students will demonstrate knowledge of the connections of anatomy, physiology, and medicine with technology, society, and the environment.</p>	<p><b>HISPANIC LITERATURE</b> is a college-level course in the language and literature of the Spanish-speaking world. The primary focus of the course will be the study of the works of five authors appearing on the Advanced Placement Spanish Literature syllabus. Qualified students may elect to supplement their readings in preparation for the Advanced Placement examination to be given in May. Upon approval, this course may be taken as Advanced Placement Spanish Literature for A.P. credit.</p>	

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			<p><b>ART APPRECIATION/HISTORY</b> (.5 credit) Art History teaches the students to read and recognize art from a variety of cultures and time periods. From Paleolithic to Modern, this survey course taken by all freshman, examines painting, sculpture, and architecture. Students are also taught to consider the changing role of art and artists in society. Slide lectures, oral reports, and a research project make up the bulk of class work, while field trips provide students with the opportunity to study art and architecture firsthand.</p>	<p><b>AP CALCULUS AB</b>-This course is designed to help prepare students for the Advanced Placement Calculus AB Exam to be administered in May. Topics covered include: limits, the derivative, applications of the derivative to graphing and maximum/minimum problems, the integral, applications of the integral to area and volume problems, and techniques of integration. Prerequisite: Pre-Calculus and consent of the department and the Academic Dean.</p>	<p><b>ELECTIVE COURSE OFFERINGS</b> may include Astronomy, Experimental Biology, Aviation, Exercise Science, Nutrition, and Environmental Science</p>	
			<p><b>ELECTIVE COURSE OFFERINGS</b> may include Model UN, Philosophy, Psychology, World Religions, Sociology, and International Relations.</p>			
		4 Credits total are required	<p>Art/Music History, Humanities, US Government/Economics, and 3 additional History credits are required for a total 6 credits required.</p>	4 Credits total are required	4 Credits total are required	3 Credits total are required