

2021-2022 HIGH SCHOOL COURSE CATALOG

Learn.

Grow.

Become.™



Woodinville Montessori School

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INTRODUCTION

Woodinville Montessori School's high school is a college preparatory program based on Montessori pedagogy and current research into the needs of adolescents. The high school community is designed to help students develop strong partnerships and deep relationships with their teachers and each other. Collaborative, positive, and supportive interactions are the norm in this community.

With their curious minds as a guide, students curate ideas and information to master concepts. This approach is built on a concept of students' development as a continuum, so opportunities for revision, improvement, choice, and working towards mastery are integral to the program. Critical analytical thinking, as well as active and creative work, is emphasized through Socratic discussions and experiential learning.

The goal is for young adults to graduate from our program with a sense of purpose in life, a strong moral compass, and experience in transforming ideals into action. They have an understanding of the complexities and connections that govern positive interactions in a global society. They know how to take charge of their learning, have a strong work ethic, and are leaders ready for their next step in life.

DIPLOMA REQUIREMENTS FOR GRADUATION

Students earn high school credits in coursework that meets or exceeds Washington State graduation requirements, with flexibility for students to pursue individual projects of interest, challenge themselves with Honors classes, and receive support in challenge areas. The intent is to build a foundation in the humanities, mathematics, and sciences that enables students to discern and prepare for the college or career experience of their choice, while helping them develop a high level of independence, self-discipline, social problem-solving, and self-advocacy. The program is oriented toward fostering a global perspective, providing a deep dive into the subject being studied, and applying learned concepts to real-world situations.

All Humanities courses are taught at the Honors level, with Standard level also available. All math and science courses are taught at Standard level with Honors level available where appropriate.

The following credits and subjects are required of each candidate for graduation:

SUBJECT	2021 WMS GRADUATION REQUIREMENTS	2021 WASHINGTON STATE GRADUATION REQUIREMENTS
<i>Community Service</i>	<i>Non-credit requirement</i>	<i>N/A</i>
<i>Senior Project</i>	<i>Non-credit requirement</i>	<i>N/A</i>
<i>English</i>	<i>4 credits</i>	<i>4 credits</i>
<i>Social Studies*</i>	<i>4 credits</i>	<i>3 credits</i>
<i>Science</i>	<i>3 credits (4 Recommended)</i>	<i>3 credits</i>
<i>Math</i>	<i>3 credits (4 Recommended)</i>	<i>3 credits</i>
<i>World Language</i>	<i>2 credits (3 Recommended)</i>	<i>2 credits</i>
<i>Fine Arts</i>	<i>2 credits</i>	<i>2 credits</i>
<i>Occupational Education</i>	<i>1 credit</i>	<i>1 credit</i>
<i>Health</i>	<i>0.5 credit</i>	<i>0.5 credit</i>
<i>PE</i>	<i>1.5 credits</i>	<i>1.5 credits</i>
<i>Electives</i>	<i>4 credits</i>	<i>4 credits</i>
TOTAL CREDITS EARNED	25 CREDITS	24 CREDITS

**For any students who have not completed Washington State history during Middle School, a non-credit, semester long course will be required.*

COMMUNITY SERVICE

Community Service

Grades: 9, 10, 11 & 12

Community service is an integral part of a Montessori education, reflecting the importance of engagement with our community and our role as global citizens. WMS students complete 60 hours of community service, with no more than 30 hours occurring within the WMS community.

SENIOR PROJECT

Senior Project

Grades: 12

WMS Seniors have the opportunity to explore a passion as they launch their Senior Project. With advisory work and planning beginning in the latter half of Junior year, students are able to take advantage of the summer break to jumpstart their work. Projects range from research projects focusing on local planning initiatives to the building of a tiny house to be donated to a local tiny house village. Ideally the project will be community focused and solution oriented. Each project culminates with the submission of a paper and a student presentation to the community. Students receive project support from faculty and protected time to complete their work.

2021-2022 COURSE OFFERINGS

**indicates courses offered in the 2021-2022 school year.*

ENGLISH

High School English classes are developed as part of an integrated Humanities curriculum to foster a deeper understanding of the interplay between social, political, historical and cultural aspects of life, and to provide students a contextual basis for their learning and growth. Students' writing encompasses poetry, mini-epic "journeys," short stories, monster stories, critical responses to literature, and argumentative essays. Grammar is intrinsic to these courses.

As our English classes are mixed-age, the curriculum is designed as a two-year rotation.

Classes are taught at the Honors level but can also be taken at the Standard level.

Honors World Literature, Theme: Perspectives*

Grades: 9, 10

Full Year/1 credit

This course is a study of literature from China, India, sub-Saharan Africa, North Africa and the Middle East, and Latin America, and is designed to explore a wide range of literary voices and cultures. Students will read poetry, drama, novels, short stories, folktales, essays, and sacred texts. They also write broadly, and have options for creative, analytical, informal, and experimental pieces. Major texts may include works by Chimimanda Ngozi Adichie, Ishmael Baeh, Jiang Ji Li, Salman Rushdie, Julie Alvarez, Gabriel Garcia Marquez, Marjane Satrapi, amongst others. The overarching theme of the course is perspectives, as we examine different ways of seeing and understanding the world, while also investigating universal themes and experiences.

Honors European Literature, Theme: Transformation

Grades: 9, 10

Full Year/1 credit

This course focuses on the parts of the world that have transformed to become modern Europe. The theme is transformation, providing students the opportunity to explore works that have contributed to the development of modern Europe ranging from ancient texts to contemporary works. Focus of study compliments the regions discussed in World History to create an integrated understanding of these regions cultures and peoples. Student work includes free response to art, analysis of poetry and intentionally crafted argumentative essays. Texts studied may include, Dante's *Inferno* and works by Homer, Chekov, and Dickens, amongst others.

Honors American Literature, Theme: Ethics*

Grades: 11, 12

Full Year/1 credit

This is a seminar course on the literature of the United States, from the 1840s to the present day. Personal narratives, memoirs, nonfiction works, short stories, novels, poetry, and films are all explored. Each quarter, the literary selections integrate with the timespan being explored in American Studies, the concurrent class on history and culture. Students lead and participate in weekly in Socratic Dialogues, and compose writing across a broad range of genres as preparation for college and life. One key thematic exploration throughout the year is American Mythmaking; students examine literature and film that has historically been regarded as seminal, but that may be

problematic for a contemporary reader/viewer, and use a modern, intersectional lens through which to critique these works and their influence on American culture. Course content may include, but is not limited to: *Narrative of the Life of Frederick Douglass*, *Gone with the Wind* (film), *The Great Gatsby*, *Little Women*, *The Things They Carried*, *Their Eyes Were Watching God*, and *Between the World and Me*.

Honors Literature, Theme: Leadership, Identity, and Power

Grades: 11, 12

Full Year/1 credit

This seminar series focuses on the study of transformative human struggles, individual leaders and their impacts, and the complex and deeply interrelated domains of human culture and creativity. It also covers human-environmental interaction, sociopolitical constructs, the ways people establish their inner and outer selves, and their places and possibilities in the world. Students will engage in a wide variety of reading and writing pertinent to these concepts. Texts include essays, memoirs, biographies, autobiographies, poetry, novels, short stories, drama, speeches, and letters. Shakespeare's *Hamlet*, and his struggles with identity, fate, and ethical decision-making, provide challenging material to explore, as do readings by a broad range of authors.

SOCIAL STUDIES

Each quarter focuses on a period or region in the development of human history, is accompanied by a specific cultural lens to enhance the learning experience, and has quarterly thematic and learning questions.

Honors World History and Contemporary International Issues, Theme: Perspectives*

Grades: 9, 10

Full Year/1 credit

Throughout the year, each quarter focuses on a different global region, highlighting specific aspects from ancient to contemporary times. The theme of perspectives is fundamental as students work with both primary and secondary sources, to develop an understanding of connections between history, geography, culture and politics. Critical contemporary issues are woven into studies of China and India, Sub-Saharan Africa, Northern Africa, the Middle East and Latin America. Current events, documentaries, art, music, and a wide variety of materials and ideas are utilized. Projects may include exploration of World Religions in the first quarter and the impacts of urbanization in the fourth quarter.

Civics

Grades: 9, 10

Semester/.5 credit

This semester-long Civics course focuses on educating students as citizens and future voters. The emphasis is on understanding the functional workings of governments in the United States on multiple levels, from local to state to federal, such that students understand how and why they can take active roles in the structuring of American society. During presidential election years, there are three mini-units on ways to vote, influencers and the Electoral College. The judicial system and the role of the Supreme Court is also considered. Rights enshrined in the Bill of Rights and in additional constitutional amendments and civil rights laws are a subject for learning and discussion, as is the intersection between citizen activism and changes in governmental structures and social policy. Online materials used include the PBS-Learning Media series *Founding Principles* and material from a variety of organizations, such as Facing History and the 2021 report on Educating for American Democracy. Students have a variety of means and challenges that engage them not only in learning more about the structure of and access to

government at all levels, local to federal, but also in informed exploration and argument concerning such vital topics as the Electoral College, voting expansion initiatives, and the validity of the filibuster.

Western Art History

Grades: 9, 10

Semester/.5 credit

This semester-long survey course focuses on visual arts and charts a journey from antiquity to the 21st century intended to provide awareness, understanding, and opportunities to go in depth. Students will become very familiar with and able to apply standards of formal art analysis and historical art analysis. The course will also provide integrative insight into the connection between visual arts and the broader cultural, economic, social, and political contexts in which they were created. Case studies regarding specific artists may be used to help students understand not only their creative products, but also their process of creating, and specific, related struggles that in many instances have been crucial to the artist's lived experience and work. Students will use a multiplicity of resources, such as video lessons from *smarthistory.com*, and images and essays from a broad array of readily accessible sites offering both texts and images, such as *Google Arts & Culture*, *artsy.net*, online sites of numerous world museums, the *Web Gallery of Art*, *openculture.com*, art auction catalogs, and articles by scholars, reporters, and professional commentators and critics.

Honors American Studies: Ethics*

Grades: 11, 12

Full Year/1 credit

This comprehensive class moves chronologically through American history from the 1500's to present. The overall theme for this course is Ethics, and the United States is the region of focus. As students' progress through American Studies, the course work is integrated with American Literature. Throughout the year, students will engage in reading primary and secondary sources, viewing and taking notes on documentaries and on lectures by prominent historians, and viewing the nation through such cultural lenses as music, film, dance, and American visual arts. In addition, they will present projects of various depths, participate in seminars, and complete quarterly assessments. The course textbook is Eric Foner's AP edition of *Give Me Liberty! An American History*.

Honors Social Studies: Critical Thinking - Philosophy, Culture, and Leadership

Grades: 11, 12

Full Year/1 credit

In this course, students consider multiple aspects of leadership including leadership from within, of oneself, leadership within the family and the community, and leadership in expanded settings and varied situations. Students develop an understanding of the principles and mindset of leadership, practice critical thinking, and reconsider significant and transformative human struggles, such as the quest for freedom, inclusion, equity, and equality. An emphasis is put on the ethical dimensions of actions and decisions, and on the implications of what one writes, says, or does. Varied projects and extensive writing assignments are integral to this class. Texts explored include philosophical works by Aristotle, Plato and others; college-level texts on ethics, sociology, and aspects of human psychology and sociopolitical constructs. The course texts are *Critical Thinking, Learn the Tools the Best Thinkers Use* by Richard Paul and Linda Elder, and *Thought and Knowledge* by Diane F. Halpern. Students also read Maria Montessori's collection of speeches, *Education and Peace*, and reflect on her ideas.

SCIENCE

Science courses provide students with the opportunity to engage in hands-on, guided inquiry learning featuring frequent class discussions, cutting-edge information, and lab work. There is a focus on working together effectively in a lab group while also building individual understanding. Most science classes are offered as year-long experiences, while science electives are semester-long.

Biology*

Grades: 9, 10

Full Year/1 credit

This year-long lab course is offered every other year, with the curriculum organized in a natural progression from fundamentals to big picture: biochemistry, cell biology, genetics, evolution, and bioethics. The focus is on helping students understand the core elements of the biological sciences so they have the tools to explore more in-depth topics in the real world as well as in future science classes. Students have homework assignments from a textbook, read a variety of articles from scientific journals and participate in frequent laboratory investigations and hands-on activities. Honors students take the same course but complete additional challenge assignments and readings.

Physics*

Grades: 11, 12

Full Year/1 credit

Prerequisite: Students are expected to be taking Algebra II & Trigonometry concurrently or have completed Algebra II & Trigonometry.

This year-long introductory course is designed to help students gain a deeper understanding of everyday phenomenon. Students explore fundamental concepts through readings, class discussions, simulations, laboratory experiments and independent research. Topics covered include mechanics, laws of gravitation, sound vibrations and wave phenomena, electricity, magnetism, and introduction to subatomic physics. Students may choose to take the course at the Honors level.

Chemistry

Grades: 11, 12

Full Year/1 credit

Prerequisite: Students are expected to be taking Algebra II & Trigonometry concurrently or have completed Algebra II & Trigonometry.

Chemistry is a year-long lab-based course designed to give students a broad overview of Chemistry. Students will explore fundamental concepts through readings, class discussions, online simulations, laboratory experiments and independent research. Students also work on applying mathematical skills to solve chemical problems and analyze laboratory data. Topics covered in the first semester include atomic structure of elements, arrangement of elements in the periodic table, chemical bonding, reactions and stoichiometry. Topics covered in the second semester include aqueous solutions, properties of acids and bases, chemical equilibrium, redox reactions and organic chemistry. Students taking the Honors level class will follow the same curriculum but are expected to do additional reading, complete more challenging problems and lab activities.

Anatomy & Physiology

Grades: 9, 10, 11, 12

One Semester/.5 credit

The course is a semester-long overview of the systems of the human body, focusing on the muscular, skeletal, digestive, respiratory, cardiovascular and sensory systems. Students study anatomical directions, make models of different systems, and engage in histology labs, examining and learning to identify different tissues of the body under a microscope. This course includes frequent dissections (chicken wing, sheep heart, eyeball, and fetal pig).

Astrobiology

Grades: 9, 10, 11, 12

One Semester/.5 credit

This semester-long course is an introduction to an interdisciplinary field of study touching on evolution, genetics, chemistry, astronomy, anthropology, aerospace engineering and physics. The class includes a study of organisms that live in extreme environments on Earth, experiments related to remote sensing of data, practical astronomy, the history of space exploration, and SETI (the Search for Extraterrestrial Intelligence).

Forensic Science

Grades: 9, 10, 11, 12

One Semester/.5 credit

A semester-long lab exploration course that combines aspects of psychology, chemistry, biology, anatomy and physics to solve (simulated) crimes. Practicing real-world forensic techniques and interpreting actual case studies is part of this course. Lessons include procedures for collection of evidence, observation of a crime scene, fingerprinting, chromatography, toxicology, and DNA analysis.

Neuroscience

Grades: 9, 10, 11, 12

One Semester/.5 credit

This semester-long class is an introduction to the workings of the human brain. Coursework includes dissection of a brain, memory experiments, psychology research, vision investigation of optical illusions, and researching current events in neuroscience (i.e. using the mind to control artificial limbs and cochlear implants). Students will also learn about sensory systems as part of the nervous system.

MATH

Student placement in Math classes is determined using a combination of prior experience, teacher recommendations, grades and assessments. Students in Algebra and above receive high school credit. All high school math classes are year-long and offer an Honors option, in which students work additional challenging problems.

Algebra I*

Full Year/1 credit

Algebra 1, offered to students who have successfully completed a Pre-Algebra course or its equivalent, is a foundational course to prepare students for ongoing study of advanced mathematics. Topics covered include real numbers, rational equations and functions, graphing linear equations and inequalities, exponential functions,

polynomials, quadratic equations, and factoring. Students will also engage in collaborative problem solving, writing and talking about mathematics, and exploring careers that use mathematics.

Geometry*

Full Year/1 credit

Geometry follows Algebra 1 in the math sequence and weaves together problem sets, constructions, and two-column proofs. Along with traditional topics like triangle centers, surface area and volume, and an introduction to trigonometry, this course also introduces students to the Greek alphabet, principles of formal logic, and applications of geometry in architecture. Several hands-on projects during the last two quarters allow students to demonstrate their understanding in novel ways.

Algebra II/Trigonometry*

Full Year/1 credit

Algebra II/Trigonometry is a year-long course offered for students who have successfully completed Geometry. Each topic covered in this course is explained using algebraic, graphical, and numerical methods to enhance student learning. Students practice their skills using traditional methods, real-world applications and also use graphing software. Topics covered in the first semester include inequalities, complex numbers, functions, transformation of functions, linear and quadratic equations, polynomials, exponential and logarithmic functions. The second semester focuses on trigonometric functions by introducing the unit circle, evaluating trigonometric expressions both algebraically and graphically, using trigonometric identities, polar coordinates and vectors. Students taking the Honors level class will follow the same curriculum but are expected to complete challenging problems in assignments.

Precalculus*

Full Year/1 credit

Precalculus is offered for students who have successfully completed Algebra II/Trigonometry. The course includes in-depth study of mathematical modeling using complex, multi-step problems to improve students' expertise in critical thinking and analysis. Additional topics include polar graphs, parametric equations, partial fraction decomposition, matrices, conic sections, sequences and series, probability, and an introduction to Calculus.

Calculus I*

Full Year/1 credit

Calculus I is offered for students who have successfully completed Precalculus. Topics include limits, rules of differentiation, applications of derivatives such as related rates and curve sketching, integrals, the Fundamental Theorem of Calculus, differential equations and the volume of solids of revolution. Emphasis is on conceptual understanding of topics via a multi-representational approach. Along with traditional textbook problem-solving, students also work in groups on guided inquiry learning labs and complete an art project modeling volume by cross-sections.

Calculus II*

Full Year/1 credit

Calculus II is offered for students who have successfully completed Calculus I. We continue our study of single variable calculus with additional integration techniques, infinite series, parametric equations, polar coordinates, and vectors. Students are immersed in both theoretical and real-world applications of these concepts. Throughout the year, students complete cumulative review assignments each week to maintain and sharpen their skills in the

methods and applications of Calculus. Additional emphasis is on conceptual understanding and the communication of mathematics, both written and orally, using accurate mathematical vocabulary.

Advanced Math Topics

Full Year/1 credit

Advanced Math Topics is an independent study class offered by permission of the instructor. Topics are based on students' interests as well as their math background and skill level. Independent activities include reading, instructional video, and problem-solving practice. Students meet with their instructor one hour per week to discuss what they've learned, and may prepare and poster presentations and/or interactive lessons for WMS secondary students. Possible topics include intermediate Counting and Probability, vector study of planes and lines in three-dimensions, Python programming, and data science.

WORLD LANGUAGES

Japanese 1*

Full Year/1 credit

This one-year course provides a general introduction to the Japanese language. Students will learn Hiragana, Katakana, and some Kanji characters to be able to write and read basic grammar patterns and to develop listening and speaking skills. Presentation, singing, cooking and calligraphy will introduce students to Japanese culture.

Japanese 2

Full Year/1 credit

Prerequisite: Japanese 1 or instructor approval upon completion of placement test.

Japanese 2 builds upon knowledge gained in Japanese 1. Students will continue to develop their listening, speaking, reading and writing skills utilizing more complex sentence structures. Projects such as writing a folktale story, making a speech, singing, cooking and calligraphy will be offered to further students' understanding of Japanese culture.

Japanese 3*

Full Year/1 credit

Prerequisite: Japanese 2 or instructor approval upon completion of a placement test.

Japanese 3 builds upon the knowledge and communication skills gained in Japanese 2. Students will study and discuss a variety of topics, including cultural aspects, in spoken and written forms. The focus will be on the accuracy and attention to detail provided in their explanations. Students will also learn about various Japanese cultural concepts and demonstrate how they reflect on Japanese society through presentations.

Japanese 4*

Full Year/1 credit

Prerequisite: Japanese 3 or instructor approval upon completion of a placement test.

Japanese 4 builds upon knowledge gained in Japanese 3. Students will also explore the social, historical and cultural aspects that influence Japanese life today. They will be doing cultural research, discussions and traditional cultural art projects.

Spanish 1*

Full Year/1 credit

This year-long class is an introduction to the Spanish language and various cultures of Latin America and Spain. The class starts with the basics and builds to include the present and past tense with various aspects of Spanish language grammar and vocabulary woven in. This is accomplished by “traveling” through various Spanish speaking cultures in each chapter of the textbook and focusing on themes such as describing oneself and others, meals and food, asking questions, daily routines and vacation plans.

Spanish 2

Full Year/1 credit

Prerequisite: Spanish 1 or instructor approval upon completion of a placement test.

In Spanish 2, students continue building vocabulary and grammar, which includes further tenses of verbs. They will also deepen cultural knowledge by “traveling” through various Spanish-speaking countries. Spanish 2 students will study multiple forms of the past tense: preterit, imperfect, and begin to use the subjunctive. Themes include staying healthy, telling time, and chores.

Spanish 3*

Full Year/1 credit

Prerequisite: Spanish 2 or instructor approval upon completion of a placement test.

In Spanish 3, students again absorb cultural studies through “traveling” to a variety of Spanish-speaking countries via the textbook. Students deepen their understanding of the subjunctive, along with a handful of other verb tenses: conditional tense, past progressive, and past perfect tense. Themes of units include: describing family relationships, computer vocabulary, and volunteer activities.

Spanish 4*

Full Year/1 credit

Prerequisite: Spanish 3 or instructor approval upon completion of a placement test.

In Spanish 4 students again absorb cultural studies through travelling to a variety of Spanish- speaking countries through the textbook. With few new grammatical concepts, students will solidify their knowledge of concepts gained in previous years of Spanish, as well as continue to broaden their vocabulary.

FINE ARTS ELECTIVES

Fine Arts coursework is a key element of a Montessori education and remains an important component of the WMS high school education. Founded on the principle that appreciation of artistic pursuits is part of a broad-based liberal arts education, WMS offers a breadth of Fine Arts offerings. In keeping with Montessori tradition, students play a role in determining what courses will be offered each year and are able to select their own coursework from the courses offered. Course work offers a balance of academic understanding and hands on experiences. Students leave each course having created original works in each subject area. Students interested in pursuing a Fine Arts education are guided through the portfolio development process. Classes are semester long and earn .5 credit.

Previous classes have included: Studio Art, Comics & Zines, Phone Photography, Graphic Design, Digital Art, Music & Culture, Drama, Puppeteering.

STEM

STEM electives are offered each year and reflect current topics in STEM education. Projects are student-driven and developed in the Innovation & Design Lab to inspire creativity and teach skills. In keeping with Montessori tradition, students play a role in determining what courses will be offered each year and are able to select their own coursework from the courses offered. Course work offers a balance of academic understanding and hands on experiences. Classes are semester long and earn .5 credit each.

Previous classes have included: Outdoor Geodesic Design & Construction, Laser Cutting, Leather Working.

OCCUPATIONAL EDUCATION

College Planning*

Grades: 11, 12

Full Year/.5 credit

College Planning is a three-semester requirement for all students in semesters 5, 6, and 7. Class meets weekly to discuss topics including the following:

- Development of testing plans for ACT and SAT.
- YouScience aptitude assessment.
- Identification of student and family goals in the areas of academics, lifestyle and financial accessibility.
- Development of a balanced college list.
- Development of an academic resume.
- Interview preparation.
- Key elements of college applications.
- Development of personal statement and supplemental essay writing.

Personal Finance*

Grades: 12

One Semester/.25 credit

Personal Finance is a requirement for all seniors and is typically taken in semester 8. Topics covered include calculating net income from gross income, building a budget, understanding credit, leases and mortgages, investing, and wealth development and management.

HEALTH & PHYSICAL EDUCATION

High School Physical Education*

Grades: 9, 10, 11, 12

Semester/.5 credit

Classes focus on a variety of lifetime sports and activities with the goal of developing a personal fitness plan. This course is an individualized approach to physical fitness, comprised of cardiovascular endurance, strength, and flexibility.

Health*

Grades: 9, 10

Full Year/.5 credit

This year-long course is integrated with Biology and is offered every other year. Topics covered include nutrition, disease transmission, infant and child development, and human sexuality. The course includes activities from the Our Whole Lives curriculum and the King County Family Life and Sexual Health curriculum (FLASH), supplemented by current journal articles and website investigations.