



Course Offerings Catalog

2025-2026

Content

[PROGRAM VISION](#)

[GRADUATION REQUIREMENTS](#)

[YOUR SCHEDULE](#)

[PLACEMENT OF STUDENTS IN COURSES](#)

[GUIDELINES FOR READING COURSE OFFERINGS](#)

[COURSE LOAD AND HOMEWORK](#)

[ADVANCED STUDIES](#)

[SEMINAR](#)

[SPECIAL FEES 2025-2026](#)

[ARTS COURSE DESCRIPTIONS](#)

[ATHLETICS AND PHYSICAL EDUCATION COURSE DESCRIPTIONS](#)

[ENGLISH COURSE DESCRIPTIONS](#)

[EXPERIENTIAL LEARNING COURSE DESCRIPTIONS](#)

[HISTORY & SOCIAL SCIENCE COURSE DESCRIPTIONS](#)

[LANGUAGE COURSE DESCRIPTIONS](#)

[MATHEMATICS COURSE DESCRIPTIONS](#)

[SCIENCE COURSE DESCRIPTIONS](#)

Emma Willard School Mission

Honoring our founder's vision, Emma Willard School proudly fosters in each young woman a love of learning, the habits of an intellectual life, and the character, moral strength, and qualities of leadership to serve and shape her world.

PROGRAM VISION

Intellectual Flexibility

Emma Willard School strives to educate a generation of learners ready and able to address the most pressing issues of their time. During their time at Emma, students develop the intellectual flexibility to consider big questions and to work to solve big problems.

Purpose & Community

Fundamental to personal wellbeing is the life-long exploration of one's self and one's contribution to the world. The Emma curriculum fosters a sense of purpose in each student by emphasizing relevance, impact and community connection.

Equity & Justice

Living and learning in a global and inclusive community requires persistent and purposeful practice, exposure to and understanding of the global community, and the skills necessary to build and sustain equity and justice in the world.

GRADUATION REQUIREMENTS

Listed below are the requirements by department. Virtually all students elect more courses in some disciplines than the requirements demand.

ARTS

For entering 9th graders, successful completion of 2 credits of arts electives; 1 of these credits must be completed by the end of 10th grade; at least one course must be a performance course, and at least one course must be a visual arts course.

For entering 10th graders, successful completion of 1 credit of arts electives at Emma Willard; at least one course must be a performance course, and at least one course must be a visual arts course.

For entering 11th graders, successful completion of 1 credit of arts courses at Emma Willard with no distribution required among the arts.

ATHLETICS AND PHYSICAL EDUCATION

All students must take physical education classes or their equivalent in team sports or dance all year during 9th, 10th, and 11th grade. 12th graders are required to take 8 to 10 weeks of physical education classes or the equivalent. All students must complete a swimming and water safety proficiency test.

ENGLISH

Successful completion of four credits of English. During 9th, 10th, and 11th grades, students must take the grade-level English courses I, II, and III. In 12th grade, each student must choose one English elective in the fall and one in the spring.

HISTORY & SOCIAL SCIENCE

Successful completion of three courses in history and social science or their equivalents, including one credit of United States history taken at the 11th- or 12th-grade level.

LANGUAGE

Successful completion of the third (300) level of a single language following an initial placement test at Emma Willard. This does not apply to students for whom English is a second language.

MATHEMATICS

Successful completion of the mathematics sequence through the third level following the sequence: Algebra I (M-125), Algebraic Geometry (M-225), and either Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine Problems (M-326).

SCIENCE

Successful completion of three credits of laboratory science: one year of Physical Science: Physics (S-100 or S-101), one course of Chemistry (S-200 or S-201), and one course of Biology (S-310). AP courses fulfill the chemistry and biology requirements. For students entering in 10th or 11th grade, successful completion of two credits of laboratory science during their high school career: one course of physical science (chemistry or physics) and one course of life science (biology), determined on an individual basis. Students admitted for the spring semester will be excused from the corresponding requirement (e.g. admitted in January of ninth grade, excused from S-101) and will work with the department chair to determine current and future coursework.

YOUR SCHEDULE

Emma Willard is committed to students gaining experience in making academic choices. The following are typical schedules for each grade:

9th-GRADE PROGRAM

Arts semester course(s)

English I

Classical Mediterranean History and a regional history elective (African History, East Asian History, or Indian History)

Language

Mathematics

Physics Essentials or Physics

Physical education class, unless exempted through dance class or interscholastic teams

Grade 9 READY Seminar

Tech Essentials

10th-GRADE PROGRAM

Arts semester courses

English II

Regional history elective (European History, Latin American History, or Middle Eastern History) and Contemporary World History

Language

Mathematics

Chemistry Essentials or Chemistry

Physical education class, unless exempted through dance class or interscholastic teams

Grade 10 READY Seminar

Tech. Essentials (if incoming sophomore)

Up to 1 Advanced Studies course

11th-GRADE PROGRAM

Arts semester courses

English III

United States history

Language

Mathematics

Biology

Physical education class, unless exempted through dance class or interscholastic teams

Grade 11 READY Seminar

Tech. Essentials (if incoming junior)

Up to 2 Advanced Studies courses

12th-GRADE PROGRAM

For graduation, a 12th grader must complete any distribution requirement that remains unfilled and choose one elective from the English department in each semester. A 12th grader must also fulfill an 8 to 10 week physical education requirement either through gym class or an acceptable substitution. Further, a 12th grader must minimally carry 2.5 credits per semester, 5 credits for the year. Grade 12 students enroll in Grade 12 READY Seminar. Grade 12 students may enroll in up to 3 Advanced Studies courses.

PLACEMENT OF STUDENTS IN COURSES

In courses that are taught in more than one section, the school reserves the right to place students. Neither students nor their families are allowed to choose class sections by teacher, classmates, etc.

GUIDELINES FOR READING COURSE OFFERINGS

"RESTRICTED TO"

Each course description includes a notation of the class levels to which the course is restricted to. There may be exceptions.

GRADING SYSTEM

There are two grading systems in use at Emma Willard. For most courses the grading system ranges from A to No Credit (A, A-, B+, B, B-, C+, C, C-, D+, D, D- and No Credit). Unless otherwise indicated in the course description, this grading system is used. For some courses a grading system of Credit/No Credit is used; in these courses only those two grades are used.

In visual arts courses, a student may elect to take a course for a letter grade or as Credit/No Credit. To use the letter grade option the student must register the grading choice with the art teacher. The student cannot then change this arrangement. For fall semester courses, the choice of a letter grade must be made by the end of the third week of fall semester. For spring semester courses, the choice of a letter grade must be made by the end of the third week of spring semester.

Freshmen receive grades of Credit/No Credit for their semester at Emma Willard. In the second semester, freshmen receive letter grades that are recorded with the registrar and reported on transcripts. Comprehensive final exams or culminating experiences may be included in this second semester grade.

COURSE LOAD AND HOMEWORK

Courses are assigned credits as follows:

1.5 credit = Advanced Studies course

1 credit = non-AS course

.5 credit = art course

A student customarily carries 5–6 credits per year: 2.5–3 credits per semester. A student must carry a minimum of 2.5 credits per semester. A year course designated as 1 credit or a semester course designated as .5 credits typically requires 5-6 hours of work per week, counting time both inside and outside of the classroom. A year course designated as only .5 credits typically requires 3 hours per week, counting time both inside and outside of the classroom. A 1.5 credit year course typically requires 6–7 hours per week, counting time both inside and outside of the classroom. The actual time required varies from student to student and week to week.

ADVANCED STUDIES

Emma Willard School offers a unique Advanced Studies Program. Many Advanced Studies courses will largely continue to align with the Advanced Placement™ curriculum; however, Advanced Studies courses will not prepare students as fully for the AP exam as the Advanced Placement™ courses. Advanced Studies teachers will provide students with recommendations for additional resources for self-study to allow students to prepare fully for the AP exam.

Advanced Studies courses will be comparable to Advanced Placement™ courses in rigor and workload and will carry an equal weight of 1.5 credits. Advanced Studies courses will count equally toward a student's total advanced courses for the school year. For example, a rising 11th

grader may enroll in at most two Advanced Studies courses. Students enrolled in an Advanced Studies course are given the option to take the Advanced Placement examination in that subject. The AP exam fee for each course will be charged to the student's SmartCard account at the beginning of the academic year after confirming the student's plan to register for the exam. Emma Willard School seeks to instill in each student a wide breadth of knowledge and the ability to demonstrate mastery of learning in a variety of ways. To ensure students engage with a range of rigorous offerings across the program, the school caps the number of AS courses a student may take in each grade year. A grade 9 student may not enroll in AS courses. A grade 10 student may enroll in up to one AS course, a grade 11 student may enroll in up to two courses, and a grade 12 student may enroll in up to three AS courses.

Each year, Emma Willard students participate in advanced study in the following subjects:

Art History
Biology
Calculus AB
Calculus C
Chemistry
Chinese Language
Comparative Government and Politics
Computer Science A
Computer Science Explorations
Entomology
French Language
Latin
Literature
Physics I
Psychology
Spanish Language
Statistics
Studio Art
United States History

SEMINAR

At Emma Willard, we believe that in order to be *ready* to serve and shape their world our students must learn to practice care and understand purpose for themselves, then envision and enact those skills in their communities, and the broader world. The READY Program is a four-year curriculum designed to support this learning by creating a thoughtful and experiential practice on "how to human."

Grade 9: Emma READY

Emma READY supports students' transition to Emma Willard School and helps them develop skills that are critical and relevant in a students' high school life. This includes finding balance as

a healthy/well individual at an academically rigorous school, and helping students feel a sense of self and belonging in the community.

Grade 10: READY Seminar

Grade 10 READY builds on 9th grade lessons to support a deeper understanding of personal development and wellbeing at Emma. Students will continue to learn about key areas of their health including learning about risk taking behaviors. Students will practice how to develop healthy relationships across many areas of their lives. This will include navigating conflict and challenging conversations. Students will explore how to define purpose in our lives now and as a guide for the future.

Grade 11: READY Seminar

Grade 11 READY asks students to consider how they will engage in the world outside of Emma. Students will continue to explore our health curriculum adding in layers of cultural and societal context. 11th grade begins the college exploration process, considering the values and priorities students will employ in finding a college match, and considering expectation and stress management throughout the process.

Grade 12: READY After Emma

READY After Emma supports students in their graduating year to finalize their college applications and choices. We will then turn our focus to life after Emma and have the opportunity to reflect on the Emma Willard experience where students will consider what they are taking away from Emma, and what they are leaving behind.

Healthy Living and Life Skills

Emma Willard School's Healthy living and life skills curriculum is embedded throughout the READY Seminar program and provides students with knowledge about a variety of topics related to health and wellbeing. Through the use of open-ended questions, interactive activities, discussions and guest speakers, students explore the importance of personal responsibility and are given tools to gauge their levels of wellbeing, to identify areas for growth, and to examine how their beliefs impact their personal decision-making. In each year of the READY Seminar, the curriculum covers topics including healthy relationships, nutrition, exercise, stress management, emotional and mental wellbeing, sexual and reproductive health, drugs and alcohol, and addiction.

Tech. Essentials

The goal of the Tech. Essentials class is to help all incoming students consistently learn foundational technology skills that are essential to working with technology as a student here at Emma Willard, as well as in the world. The course is meant to support each student in gaining the same baseline skills and knowledge to be successful throughout their first year and beyond. Fostering an environment where students support and learn from each other, Tech. Essentials accommodates the wide range of technology skills students arrive with. Students will answer essential questions such as "How do I best create content for my classes?", "How do I analyze

and create a potential solution to a technical difficulty?”, and “How do I express my creativity and share my thoughts using tech?” This course is taught in a hybrid model where all students will meet in person the first few weeks and then have the option to complete the modules in person or asynchronously on their own.

English Support

This course is designed to help students improve their English language skills through concentration on reading, writing, speaking, and listening. This course is taught by a member of the Capital Region Language Center who specializes in teaching English as a new language. Students may be placed in a one or two-year sequence of English support based on their demonstrated level of proficiency.

SPECIAL FEES 2025-2026

Additional fees are charged for certain types of instruction. In some courses, for example those in visual arts, a materials fee is charged to the student’s SmartCard account. Music lessons require a special fees form (available from the arts department chair). Students can sign up for music lessons while planning their programs, but these courses are not added to student schedules without parental signatures on the special fees form.

SmartCard accounts are used for books and supplies authorized by classroom teachers. Athletic uniforms and supplies for dance classes and physical education may also be charged to SmartCard accounts.

Course Offerings

ARTS COURSE DESCRIPTIONS

The arts department offers a variety of courses in music, theatre, dance and visual arts. Students have the opportunity to learn vocabulary and problem-solving and performing techniques that are unique to each discipline. Our course offerings are designed for students of all levels of interest and proficiency so that students are able to explore new areas as well as study a particular art form in depth.

Grading Option: Arts courses are graded on a Credit/No Credit basis, but for the visual arts courses, a student may elect to take a course for a letter grade. To use this option the student must register the grading choice with the teacher at the appropriate deadline. This arrangement cannot then change during the semester.

Course Numbering: The first digit indicates level, not the grade of the student for whom the course is intended: thus, a 100 course is for the inexperienced student of any age, and a 300 course might well suit a younger, experienced student. The second digit indicates broad subdivisions of study within the division: 1 and 2-visual arts; 3-dance; 4-theatre; 5-music; 7-photography; 8 and 9-interdisciplinary.

EMMA ARTISTS PROGRAM

The Emma Artists Program is for advanced students in dance, music, theatre or visual arts who would like to pursue further advanced study. Each year, students perform and/or show their work to the community. As students move through the program, projects grow in scope and depth.

A-299 Special Project in the Arts in the Performing Arts

Year 0.5 credit

This course is for students who have exceeded the levels of our arts offerings and wish to continue study in a particular arts discipline. This course could serve as preparation for the Emma Artists Program should the student choose to pursue their studies in the arts.

Prerequisites: Students in music require permission of both the instructor and the arts department chair. This course may be repeated for credit.

Students in theatre require permission from the instructor and department chair and should have completed courses through Acting II/Acting: Actor as Creator

A-399A Emma Artists I: Performing Arts

Year 0.5 credit

This course is for advanced performing arts students with significant arts training who wish to undertake a terminal arts project. Students work with a team of faculty across the arts disciplines. Examples of culminating projects are a performing arts recital, an advanced dance

project or an advanced theater performance.

This course requires permission of both the instructor and the arts department chair.

Prerequisite: Special Projects in the Arts or by permission of the instructor

A-399B Emma Artists I: Visual Arts

Year 1 credit

This course is for advanced visual arts students with significant arts training who wish to undertake a terminal arts project. Students work with faculty to exhibit their work at the conclusion of the year. The course requires commitment and a willingness to experiment in new directions and media. Students work with the instructor for personalized assignments and suggestions. Drawing, painting, mixed media, new media, installation, and sculpture are all open for exploration. Through slides and videos students examine contemporary approaches to making art and connections to their own studio work. Although intended for seniors, this course is also open to juniors.

This course requires permission of both the instructor and the arts department chair.

Prerequisite: Advanced Studio Art, Advanced Media Arts, or by permission of the instructor

Restricted to: 11/12

A-499A Emma Artists II: Performing Arts

Year 0.5 credit

This course is for advanced performing arts students with significant arts training who wish to undertake a terminal arts project. Students work with faculty from their specific discipline of study. Examples of culminating projects are a performing arts recital, an advanced dance project or an advanced theater performance.

This course requires permission of both the instructor and the arts department chair.

Prerequisite: Emma Artists I or by permission of the instructor

Restricted: 11/12

A-499B Emma Artists II: Visual Arts

Year 1 credit

This course is for advanced visual arts students with significant arts training who wish to undertake a terminal arts project. Students work to exhibit their work at the conclusion of the year. This requires commitment and a willingness to experiment in new directions and media. Students have individual meetings with the instructor for personalized assignments and suggestions. Drawing, painting, mixed media, new media, installation, and sculpture are all open for exploration. Through slides and videos students examine contemporary approaches to making art and connections to their own studio work. Although intended for seniors, this course is also open to juniors. This course requires permission of both the instructor and the arts department chair.

Prerequisite: Emma Artists I: Visual Arts or by permission of the instructor

Restricted to: 11/12

A-599A Emma Artists III: Performing Arts

Year 0.5 credit

This course is for advanced performing arts students with significant arts training who wish to undertake a terminal arts project. Students work with faculty from their specific discipline of study. Examples of culminating projects are a performing arts recital, an advanced dance project or an advanced theater performance.

This course requires permission of both the instructor and the arts department chair.

Prerequisite: Emma Artists II or by permission of the instructor

Restricted to: 12

DANCE

A-130 Beginning Ballet/Contemporary Dance

Fall only 0.25 credit

This introductory course is for students with little or no previous dance experience. The course emphasizes traditional steps, musicality, and terminology. Students gain strength, coordination, grace, and confidence in performing ballet and contemporary dance. Students learn to use their dance vocabulary to create original movement phrases, introducing them to an understanding of choreographic skills. The class prepares the student for continuing study in many dance forms, including contemporary dance, ballet and jazz dance. All students have the opportunity to observe or participate in master classes taught by guest instructors when possible. No previous experience is required.

This course may be repeated for credit.

A-134 Core Training Fundamentals

Fall or Spring 0.25 credit

The human body is an amazingly efficient instrument giving us the ability to accomplish extraordinary feats or simply carry us from one place to another. Every activity we pursue requires the activation of our muscles and the support of our skeleton, yet if we do not support these actions with informed alignment and intelligent muscular training, injury can result. This fundamental training course introduces the student to exercises geared to strengthen her core while developing greater flexibility and balanced alignment. Training will consist of a combination of techniques, including Pilates exercises, resistance stretching, therabands, balls, foam rollers, and magic circles. Whether you are a three-season athlete, a prima ballerina, a person who spends hours practicing a musical instrument, or someone who takes a walk once a week, balanced alignment and movement strength and efficiency will improve your performance. No experience or previous training is necessary.

This course may be repeated for credit.

A-139 Hip Hop

Year 0.5 credit

Hip Hop is a street style that can be found around the world that combines freestyle movement and music. Students will be asked to explore movements and rhythms that may be new to them to create a dynamic experience of both dance and music. Class activities can include learning

set movement, improvisation, viewing and discussing dance, and some journaling. All students participate in the development of choreography for a performance in the Dance Assembly. No experience is required—just a willingness to have fun.

This course may be repeated for credit.

Fulfills prerequisite for Intermediate Contemporary Dance and can fulfill the prerequisite for Intermediate Ballet (with instructor approval).

A-231 Intermediate Contemporary Dance

Year 0.5 credit

Intermediate Contemporary Dance expands the student's mastery of dance skills beyond the Introductory level. Dance sequences and exercises are designed to increase the students' familiarity with modern dance styles, while developing their understanding of space, musicality, and dynamics as tools for creative expression. Class activities include warm-up exercises, movement studies, discussions, written observations and critiques. All students participate in the development of contemporary choreography for a performance in the Dance Assembly.

Prerequisite: Permission of the instructor

A-235 Intermediate Ballet

Year 0.5 credit

Students practice the techniques of ballet performance at the intermediate level. Emphasis is placed on increasing strength, flexibility and articulation consistent with ballet performance requirements. Students work with the musicality of the ballet vocabulary to help transform their technical study into an expressive form.

This course may be repeated for credit.

Prerequisite: Permission of the instructor

A-331 Advanced Contemporary Dance

Year 0.5 credit

Advanced Contemporary Dance expands the student's mastery of dance skills beyond the intermediate level. Dance sequences and exercises are designed to increase the students' familiarity with modern dance styles, while developing their understanding of space, musicality, and dynamics as tools for creative expression. Class activities include warm-up exercises, movement studies, discussions, written observations and critiques. All students participate in the development of contemporary choreography for a performance in the Dance Assembly.

This course may be repeated for credit.

Prerequisite: Permission of the instructor

A-335 Advanced Ballet

Year 0.5 credit

Students practice the techniques of ballet performance at the advanced level. Emphasis is placed on increasing strength, flexibility and articulation consistent with ballet performance requirements. Students work with the musicality of the ballet vocabulary to help transform their technical study into an expressive form. This course may be repeated for credit.

Prerequisite: Permission of the instructor

A-340 Dance Choreography/Performance Workshop

Year 0.5 credit

In this year-long course, students will investigate the elements of choreography through discussions, video screenings, solo and group movement studies. Students will collaborate in the choreography of their peers, participating in rehearsals and feedback sessions of the evolving choreography. In the spring semester, students will practice their choreographic skills by choreographing original dances for presentation in a performance concert.

Prerequisite: Currently enrolled in an advanced dance class and permission of the instructor.
Restricted to: 10/11/12

MUSIC

Music Lessons

Individual instruction in vocal and instrumental study is provided for a special fee. The school attempts to provide instruction in any instrument requested, either on campus or off campus through the Practicum program. If a student wants to study an instrument other than piano or organ, the student must provide their own instrument; it must be of good quality and in good working order. It is assumed that the student has a genuine interest in the instrument (or voice), that the student wants to progress steadily, and that the student is willing to devote enough time to regular practice to ensure progress. Instruction in the following instruments is available on campus: cello, flute, organ, piano, viola, violin, and voice. Students must complete the "Instruction in Music" form available on MyEmma. Students in their first year at Emma Willard may not take more than one course of individual instruction in music.

A-150 Choir

Year 0.5 credit

Do you love to sing? Choir provides opportunities for students of all levels of experience and abilities, to develop their vocal technique in a group atmosphere. We sing a variety of pieces from early music to the present day, representing many cultures, genres and languages. The ensemble performs in concerts throughout the year, including Eventide in December and the spring concert.

This course is open to all interested students and may be repeated for credit.

A-257 Orchestra

Year 0.5 credit

The orchestra repertoire focuses on instrumental music of many genres. Placements are held at the beginning of the year. A student who is new to Emma Willard should prepare a short selection that demonstrates their playing level and ability. Players must provide their own instruments. Individual practice is expected. This course may be repeated for credit. Students are encouraged to take private lessons in conjunction with this course.

A-350 Inner Choir

[Return to top](#)

Year 0.5 credit

The Inner Choir is a select vocal ensemble whose members are drawn from the choir, who would like to engage in even more musical collaboration and growth. This group performs works of many cultures and genres appropriate for an advanced choral ensemble. This course may be repeated for credit.

Co-requisite: Choir (A-150)

A-352 Music Appreciation: The World of Music

Spring 0.25 credit

What is the impact of music on the world around us? In this course, students will explore musical works across cultures and time periods. Genres can include folk music, rock, pop, musical theatre, opera, orchestral/instrumental music, based on student interest. In addition, we will study form and structure as well as composers/songwriters, performers and cultural influences. No experience or previous study is required.

This course may be repeated for credit.

A-354 Semiquavers

Year 0.5 credit

This vocal ensemble is for highly motivated singers who are able to work both independently and collaboratively to study a variety of music from different musical periods and cultures. The Semiquavers perform throughout the year.

This course may be repeated for credit.

Co-requisite: Choir (A150) and Inner Choir (A350)

Prerequisite: Invitation of the instructor

A-358 Chamber Orchestra

Year 0.5 credit

Participation in this ensemble is by audition. A student must be in the orchestra to be considered for this group. Its members are highly motivated students who wish to expand their level of playing and knowledge of classical chamber ensemble repertoire. This course may be repeated for credit.

Co-requisite: Orchestra (A-257) and acceptance by audition

THEATRE

A-141 Acting: The Art and Craft of Play

Fall and Spring

0.5 credit

This course explores physical action, working with props, the environment and a variety of dramatic activities and texts. Students will develop their imagination, focus, concentration and emotional openness; exercises for physical and vocal freedom, and listening techniques in order to create an organic moment to moment reality. The course will culminate with a final in-class performance of a theatrical scene.

[Return to top](#)

A-143 Technical Theatre Support I

Year 0.5 credit

Students who are interested in pursuing their interest and skills in technical theatre can do so in this course. Students will use their gained knowledge of theatrical lighting, sound, stage management, and backstage gained during class time to support all-school assemblies and Morning Reports throughout the school year. Students will need somewhat flexible schedules after school hours to accommodate the occasional tech rehearsal associated with school-wide events. This is a year long arts elective.

A-144 Technical Theatre Support II

Fall and Spring 0.25 credit

Students who are interested in continuing to refine their skills in backstage technical theatre can do so in this course. Students will have the opportunity to explore stage management and other leadership positions while also reviewing all of the technical theatre skills learned in the previous course. Students will fill the roles of technical leadership during the school's play productions. In addition, students will provide extra support during larger all-school assemblies and performances throughout the school year. Students will need flexible schedules after school hours and occasional weekends to accommodate the occasional tech rehearsals or evening events. This is a semester based arts elective for those who have previously taken Technical Theater Support I and students who have participated in a minimum of two Theater Company productions as crew members may also take this course. This class takes place after school. Students may add this class midway through the year with permission from the instructor for 0.25 credit.

Prerequisite: Technical Theatre Support I (A-143). Theatre Company: C (A-241C).

Restricted to: 10/11/12

A-146 Acting: Actor as Creator

Spring 0.5 credit

This course offers acting students the opportunity to explore styles of theater and methods of acting, in addition to being introduced to the basics of directing, playwriting and dramaturgy. The main objective of this course is to prepare students to develop an idea into a live performance art piece. Students will practice how to think critically about performance and find their unique way of expression. Mindfulness exercises used in performance, trust exercises, and meditation techniques are taught and practiced in this course. Students are guided through a specific creative process the result of which is presented to an audience at the end of the semester. This course may be repeated for credit.

Prerequisites: Acting I / Acting: The Art and Craft of Play and / or permission from the theater director.

A-147 Public Speaking: Expressive Speech and Storytelling

Fall and Spring 0.5 credit

“Public speaking is one of the most common fears of the human race ” Have you heard this dictum before? This course is about conquering that fear by harnessing it. Public Speaking aims

to give students the lifelong, invaluable skill of speaking clearly and comfortably in public. By the end of the semester, students become aware of personal speech characteristics; improve posture, diction and other mechanics of speech; cultivate poise and self-confidence; and develop audience awareness and self-awareness. While theoretical foundations for the methods taught will be included, this is a practice-oriented course. Issues and current events relative to the course are addressed as a means to explore and refine a variety of types of speech, including informative, persuasive, demonstrative, and entertaining.

A-241A Theatre Company - A

Fall and Spring 0.25 credit

Arts credit is granted to participants in mainstage school play productions; typically, there are two productions per school year. Cast members are chosen by audition. As participation is determined by audition, students should not sign up for the class in advance. This course may be repeated for credit.

A-241C Theatre Company - C

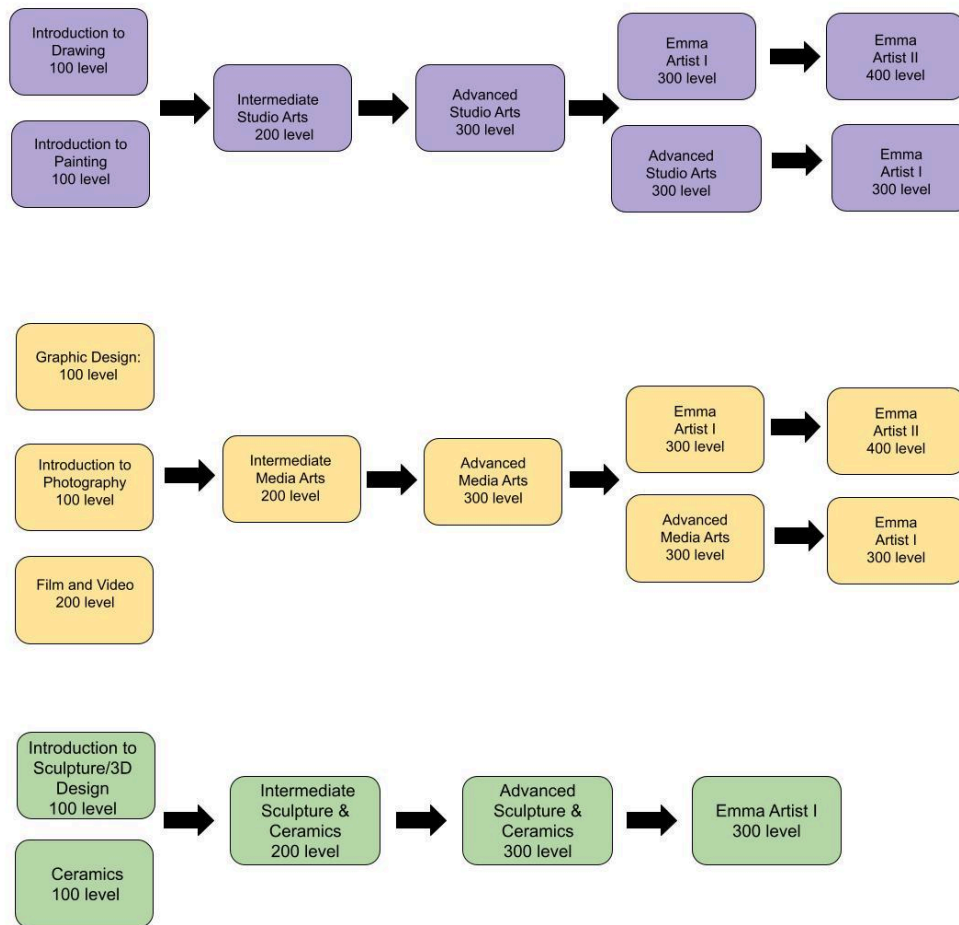
Fall and Spring 0.25 credit

Arts credit is granted to participants in mainstage school play productions; typically, there are two productions per school year. Crew members are chosen by application and the technical needs for each production. As participation is determined by applications, students should not sign up for the class in advance. This course may be repeated for credit.

VISUAL ARTS

Unless specifically stated in the course description, students have the grading option of letter grades (A through No Credit) or Credit/No Credit. Below is a pathway to show the progression of the visual arts courses.

[Visual Arts FlowChart](#)



A-116 Introduction to Drawing

Fall 0.5 credit

If you have ever thought, “I can’t draw,” this is the course to take! Introduction to Drawing is an excellent starting point for students who wish to learn the fundamental skills of drawing. No experience is necessary, as students will learn to increase both perceptual and observational skills through in-class exercises. Students study both representation and abstraction through both traditional and experimental approaches. The focus of the course is on black and white dry media including charcoal, pencil, and markers. Students learn to critique their work and the work of others in addition to articulating their thoughts through writing. Sketchbook assignments and slides supplement students’ understanding of the course.

A-117 Introduction to Painting

Fall and Spring 0.5 credit

In this course, students study the language of painting through color, form and materials.

Technical concepts and personal exploration are emphasized and applied through observational and abstract exercises. Painting with acrylics is the focus as theories of color interaction and composition are explored. Students learn to critique their work and the work of others in addition to articulating their thoughts through writing. Sketchbook assignments and slides supplement students' understanding of the course. While some previous drawing experience is helpful, no experience in painting is necessary.

A-123 Introduction to Sculpture

Fall 0.5 credit

Do you love designing, building and/or sculpting? In this course students will become familiar with technical aspects and the concept of sculpture and the 3-dimensional form. Students will develop an understanding of how to build in space using line, planes, form, and volume with a variety of different materials. Students will gain an understanding of spatial relationships and the ability to take a 2-dimensional surface and transform it into a 3-dimensional space. Students will work with a variety of materials, which may include materials such as wood, clay, cardboard, paper, spray paint, fiber, laser cutting, metal and found objects. No experience needed. This course was known formally as 3D Design.

A-125 Ceramics

Fall and Spring 0.5 credit

Have you always wanted to work with clay? This class familiarizes students with the fundamental skills necessary for working with clay along with learning the vocabulary used by ceramic and sculpture artists. Students develop their visual vocabulary while learning a variety of hand-building methods along with an intro to wheel throwing. Additionally, students are given the opportunity to develop their critical eye and decision-making skills as they begin to form a basis for aesthetic development. No experience needed.

A-170 Introduction to Photography

Fall and Spring 0.5 credit

Do you love photography? This beginner-friendly class is perfect for exploring the art and science of taking great photos. Starting with tools you already have—like your smartphone—you'll learn modern techniques and discover the history of photography. You'll spend time in both the digital lab and the darkroom, learning how DSLR cameras work and how to use color, design, and composition to tell visual stories. Class critiques offer a supportive space to improve your skills and grow as an artist. No camera? No problem—equipment is available to borrow. No experience needed.

A-175 Graphic Design

Fall and Spring 0.5 credit

Are you curious about digital drawing, poster design, or animation? This course is a great place to start! You'll explore typography, color theory, layout, and composition while using tools like Adobe Photoshop, Illustrator, and Procreate. You'll work on fun projects like designing a personal logo, creating a unique postcard, and making a short animation. Along the way, you'll learn how to design, edit, and polish your digital creations using desktop Macs, tablets, and

iPads. This class is perfect for beginners and sets you up to explore other creative areas like photography and video. No experience is needed.

A-217 Intermediate Studio Art

Year 1 credit

This course is for students who are interested in developing their own creative voice in the visual arts. Skills in drawing, color theory, and composition are further developed with the introduction of new techniques. There is a strong emphasis on self-expression, conceptual problem solving, art evaluation, and individual theme development. The first semester focuses on dry media (pencil, pastel and charcoal), while the second semester is devoted to painting. Regular slides and video lectures supplement studio study. The sketchbook plays an important role in developing preliminary sketches and documenting ideas. Within the structure of regular assignments, students are given more independence and creative license. Students interested in completing a college portfolio should take Intermediate Studio Art and begin working with art faculty before their senior year.

Prerequisite: Studio Art I: Introduction to Drawing (A-116), Introduction to Painting (A-117) , or permission of the instructor

Restricted to: 10/11/12

A-271 Intermediate Media Arts: Photo, Video and Design

Year 1 credit

Are you ready to level up your art? This class builds on what you learned in Photography, Film and Video or Graphic Design, helping you refine your skills and explore your creative potential. You'll take on exciting personal projects with more independence, learning to plan and bring your ideas to life like a pro. You'll work across photography, film, and graphic design, trying new techniques and expanding your expertise. We'll also dive into the history and trends in Media Arts to understand how the field has evolved and where it's going. If you're thinking about a college art portfolio, this course is a great step. Taking the full year is recommended to give you time to develop your process and create meaningful work. Need gear? We've got digital and film cameras ready for you!

Prerequisite: Introduction to Photography (A-170), Graphic Design (A-175), Film and Video (A-279), or permission of the instructor

A-272 Intermediate Sculpture & Ceramics

Spring 0.5 credit

This course takes Ceramics and Intro to Sculpture (formally 3D Design) to the next level. An introduction of new techniques and skills in sculpture and ceramics are further developed and explored. There is a strong emphasis on self-expression, conceptual problem solving, art evaluation, and individual theme development. Slide and video lectures supplement the studio study. Sketching and Prototyping will play an important role in developing and documenting preliminary ideas. Within the structure of regular assignments, students are given more independence and creative license. Students interested in completing a college portfolio should

take Intermediate Sculpture & Ceramics and begin working with art faculty before their senior year.

Prerequisite: Introduction to Sculpture (A-123) (formally 3D Design), Ceramics (A-125) or permission of the instructor

A-279 Film and Video

Fall and Spring 0.5 credit

In this course, you will learn the art of visual storytelling through film and video. You will explore filmmaking history, study how directors make creative decisions, and get hands-on experience with video production. You'll try out different styles, like experimental, documentary, and narrative, while learning to use cameras, record sound, and edit videos. Working alone and in groups, you'll create short video projects that focus on storytelling. Our lab has top-notch equipment with Adobe Premiere Pro and After Effects to help you bring your ideas to life. Each project ends with a class screening, where you'll share your work, give feedback, and grow as an artist.

No experience is needed.

A-311 Advanced Studio Art

Year 1 credit

This course requires substantial commitment and a willingness to explore new directions and express a personal vision. Students experiment with advanced techniques, learn to document their work,

and give written and oral critiques while creating a body of work during the second half of the year. Advanced drawing techniques, unconventional painting processes, and mixed media are all open for exploration. Through slides and videos students examine 20th century and contemporary approaches to painting and drawing. The sketchbook plays an important role in developing preliminary sketches and documenting ideas. This course may be repeated for credit.

Prerequisite: Intermediate Studio Art (A-217)

Restricted to: 11/12

A-372 Advanced Media Arts: Photo, Video and Design

Year 1 credit

This course is for Media Arts students who want to push their creativity and improve their skills. You'll build on your experience in photography, film and video, and graphic design to create work that shows your unique voice and vision. The class focuses on your personal goals with one-on-one guidance, group critiques, and inspiring readings. By the end, you will create a portfolio that includes a cohesive project based on a personal theme and a polished artist's statement. You can take this course for one semester, but a full year is recommended to fully explore your ideas and create meaningful work. Need equipment? We've got digital and film cameras ready for you!

Prerequisite: Intermediate Media Arts (A-271)

Restricted to: 10/11/12

A-373 Advanced Sculpture & Ceramics

Spring 0.5 credit

This course requires a commitment and willingness to explore new directions and express a personal vision. Students explore advanced 3D techniques, learn to document their work, and give written and oral critiques. It is a course for students who are interested in developing their own creative voice in the visual arts. Skills in sculpture and/or ceramics are further explored and developed to fit their own personal style. This is a portfolio-based class. By the end of the class students will have created an independent body of work. An artist's statement, as a means of helping the student clarify their artistic intent, is developed and presented along with their finished work. This course is open to those who have completed Intermediate Sculpture & Ceramics.

Prerequisite: Intermediate Sculpture & Ceramics

Restricted to: 10/11/12

ATHLETICS AND PHYSICAL EDUCATION COURSE DESCRIPTIONS

Athletics, Physical Education, and Dance provide our students with learning opportunities through the medium of movement and contribute to their overall development by helping them to lead full, active and healthy lives.

Grades

Courses are graded on a Credit/No Credit basis.

Movement Graduation Requirement

All students in grades 9-11 must participate in a movement experience for the entire school year. Seniors must participate for eight to ten weeks (this may vary depending on the calendar). Students may satisfy their movement requirement through participation in interscholastic sports teams, after school physical education classes (ASPE), dance courses or movement practicums (sport, physical activity and dance).

In addition, all students must successfully pass a swimming proficiency test.

Interscholastic Athletics

Athletics are an integral part of the experience at Emma. Students interested in a competitive athletic experience are encouraged to try out for any of the school's teams. The school fields competitive teams throughout the academic year as follows:

[Return to top](#)

<u>Fall</u>	<u>Winter</u>	<u>Spring</u>
V/Novice Crew	V/JV Basketball	V Badminton
V Cross-Country	V Crew	V/Novice Crew
V Golf	V Indoor Track & Field	V/JV Lacrosse
V/JV Field Hockey	V Ski Racing	V Softball
V Swimming & Diving		V Outdoor Track & Field
V Tennis		
V/JV Volleyball		

V = Varsity

JV = Junior Varsity

Practices are held every day, Monday through Friday, from 4:00-5:30 pm. Teams compete with private and public schools, generally on weekdays but some sports may include weekend competition. Students wishing to know more about this program should speak with the Athletic Director.

AFTER SCHOOL PHYSICAL EDUCATION

Emma offers a broad curriculum of physical education classes via 3 sessions throughout the school year that align with our interscholastic sports: fall, winter, and spring. Sample options include: fitness walking, outdoor education, lifeguarding (age prerequisite) pickleball, skiing, swimming, table tennis, tennis, yoga and zumba. Classes generally meet Mondays, Tuesdays and Thursdays from 4:00-5:00 p.m while some classes meet two times per week from 4-5:30pm.

DANCE

The Athletics Department grants movement credit to students enrolled in the school's dance program. Any dance course taken for movement credit must meet at least twice a week.

MOVEMENT PRACTICUM

Students who participate in any physical activity at an advanced level and/or an activity that is not available at Emma Willard may be eligible to receive movement credit. The Athletic Director and Director of Practicum will determine if the activity meets the necessary requirements.

Please note the following:

- A written proposal from the student is required, it can be part of the Practicum Application Form available on MyEmma..

- Only students demonstrating a significant commitment or advanced ability will be considered.
- Proposals must be submitted no later than the beginning of each sport season (Fall, Winter and Spring). Specific deadlines will be announced.

Swimming Proficiency Requirement

All Emma students are required to complete this requirement as we believe that swimming is an essential life skill that every Emma graduate should be able to demonstrate. Testing takes place at the beginning of the school year and at other times in collaboration with student and athletic department schedules. All students attempt a swimming and water safety test. Students must be comfortable in deep water to attempt this test. If a student is unable to pass the test, this student will be encouraged to sign-up for weekly swim lessons or join a swim class until the student passes the test. Students remain in swimming education until they pass the swimming and water safety test.

ENGLISH COURSE DESCRIPTIONS

The mastery of English forms the heart of a strong college-preparatory program and of a liberal arts curriculum. The English department challenges Emma Willard students to read and analyze works of literature ranging from Sophocles' *Antigone* to F. Scott Fitzgerald's *The Great Gatsby*. Books from the traditional canon of Western civilization are juxtaposed with works representing the experience of other cultures. In addition to extensive work in vocabulary, grammar, and expository writing, students learn to craft personal and creative pieces. The English department provides the groundwork for university study in writing and literature and develops students' skills as language artists.

E-100 English I

Year 1 credit

Students in English I study a variety of texts, some hundreds of years old and some published just a few short years ago, that raise timeless questions facing people living in communities—questions about power, destiny, and relationships. While grappling with these questions, we begin to understand the way stories create empathy. English I is an introduction to the art of literary analysis and the development of an authentic writing voice; we practice both the slow, close reading of short passages and rich figurative language and the larger-scale study of textual structures and patterns. We read novels, short fiction, drama, and poetry as we study how words create and convey meaning. Students write short essays, working to articulate strong thesis statements and to support them with detailed analysis of textual evidence. Our study of grammar and vocabulary helps students craft their own clear and expressive writing in these essays, as well as in their own poetry and personal narrative. This course includes summer reading that is outlined on the school's website.

Restricted to: 9 (10)

E-200 English II

Year 1 credit

The English II curriculum invites students to explore a series of interrelated questions: How do we use storytelling to make sense of our lives, especially when we feel outcast or as if we don't belong? How do the stories we've been told inform the stories we tell ourselves? What narratives might be lost, muted, or distorted in that process? What can we (as readers, thinkers, and writers) do to honor and explore marginalized identities—or those narratives that might be lost or suppressed? By engaging with a variety of literary texts, students reflect upon these questions and hone their critical reading skills. Through a combination of projects, class discussion, and multi-genre writing tasks, students in this course will have opportunities to think, speak, and write with increasing precision, boldness, and originality. Our study of grammar and vocabulary complements these writing goals. This course includes summer reading that is outlined on the school's website.

Restricted to: 10 (11)

E-206 Songwriting

Spring 0.25 credit

Have a great melody in mind? Got lyrics but no beat? Play great guitar but don't sing? The purpose of this collaborative class is to explore songwriting and create songs we are proud to share. We will first explore the roots of this ancient human activity and build from there. What is your first memory of song? When and why do we sing? These discussions will bring us to songwriting as a craft as well as an act. While demystifying the art and learning the process, we will discuss the evolution of songwriting and its contemporary functions by examining the work of artists such as the Beatles, Nirvana, Taylor Swift, and Billie Eilish. The bulk of this class will be hands-on, in-class songwriting in small groups working towards our own open mic event. No formal training or experience is necessary, and basic acoustic instruments such as guitars and ukuleles will be provided. Graded as credit/no credit, this class meets once a week for eight weeks beginning in January 2026; the exact schedule is TBD. This class is taught by the Sides Visiting Writer, Mr. Calabria.

E-298 Fiction Writing for Sophomores and Juniors

Fall and Spring 0.25 credit

This course is for the self-directed sophomore or junior who enjoys writing fiction and wants to strengthen those story-writing skills. In a once-a-week meeting, students share their work and receive feedback from their instructor and classmates. Students write two pages a week and have the opportunity to revise their work based on feedback provided by the class. This course must be taken in addition to a student's regular English class and may be repeated for credit.

Graded as Credit/No Credit

Restricted to: 10/11; 9 and 12 if room allows.

E-300 English III

Year 1 credit

“What is the job of the artist/writer? What are the relationships between the identities we inherit as well as the identities we create? What role does language play in racial identity and American cultural ideals? What makes a text ‘American?’”

Students in English III discover how literature and other forms of intentional expression explore the essential questions above and more. This course blends classic and less well-known texts to help students broaden and deepen their knowledge of literature classified as “American.”

Through a combination of projects, class discussion, and formal as well as informal writing, students in this course develop their critical thinking skills by striving to articulate complex, substantive arguments in clear, eloquent prose. Analytical and creative work become increasingly independent as the course goes on. Grammar instruction includes Khan Academy SAT preparation.

This course includes summer reading that is outlined on the school’s website.

Restricted to: 11 (12)

E-310 Writing Support

Year 0.5 credit

This course is designed to help students improve their academic writing ability through concentration on writing processes: prewriting, writing, and revision. The course’s main objective is to create a personalized strategy to meet each writer’s specific needs. Members of Writing Support will work individually and in small groups, overseen by the specialist, to receive customized feedback that identifies problem areas; the teacher will also provide instructions/support on how to rectify these areas. Within this group, students will be encouraged to reach out whenever they need additional writing support outside the classroom. Other concerns of the writer, particularly audience, diction, and correctness, will also be addressed.

E-402 Nonfiction Workshop

Fall 0.5 credit

Anyone who has shared or listened to a personal essay in English I, II, or III knows that first-person narratives forge a unique connection between writer and audience. By sharing the story of our own experiences, we invite others to join us, and the resulting community is richer as a result of that learning. Students in this writing workshop practice how to craft, revise, share, and appreciate nonfiction narrative by examining the work of a variety of essayists and by learning from each other as they develop their own voices. This course includes summer reading, outlined on the school’s website.

Restricted to: 11/12

E-403 Gothic Literature

Fall 0.5 credit

Known primarily for its crumbling mansions, spooky caves, and long-hidden family secrets, Gothic literature morphed over time to include the vampires, zombies, and other monsters familiar today, but it continues to explore the fears, anxieties, and worries of the cultures that produce it. Students in this course study Gothic literature from its inception in the eighteenth

century through some of its more contemporary incarnations by relying on a humanities approach, studying art, philosophy, history, film, and more. Learning will be assessed through a combination of essays and projects, one of the student's own design. Literary works may include *Wuthering Heights* (Emily Bronte), *Dracula* (Bram Stoker) and other works. This course includes summer reading, which is outlined on the school's website.

Restricted to: 11/12

E-406 Reading Film: Language & Art of Cinema

Spring 0.5 credit

Film critic Christian Metz writes, "A film is difficult to explain because it is easy to understand." In this class, students well versed in the analysis of short stories, novels, plays, poetry, and essays, learn to "read" film, analyzing the visual language by which it creates and conveys meaning. We study the narrative structure of film and build a critical vocabulary to describe its technique (covering mise-en-scène, cinematography, editing, and sound). Films viewed and discussed represent a variety of genres and time periods, and will include some R rated films. In addition to writing short essays about the films "read," students will choose a film to study and present to the class.

Restricted to: 11/12

E-407 Short Fiction Workshop

Spring 0.5 credit

Tim O'Brien, best known for his collection *The Things They Carried*, has described fiction as "getting at the truth when the truth isn't sufficient for the truth. Think about your favorite novels, films, or television shows: who are your favorite characters—the ones you fall in love with or perhaps the ones you love to hate? Why do you feel so connected with them? No matter how fantastical the story or setting, we are often drawn to characters who reveal something significant about the human experience. In E-407, student writers will gain an appreciation of the craft of short story writing by studying a variety of stories and writing their own. Writers will study craft elements such as characterization, point of view, voice, image, and setting to use in their own work and, ultimately, share their "truths" with an eager audience. Through including the writing workshop as part of the revision process, writers may see how the story form, like other art forms, can be crafted, shaped, and refined. Readings may include stories from writers such as Karen Russell, Rion Almicar Scott, Elizabeth McCracken, Aimee Bender, Kelly Link, George Saunders, Ted Chiang, Dionne Irving, Sayaka Murata, Manuel Gonzalez, and Percival Everett.

Restricted to: 11/12

E-411: Literature and Fairy Tales

Spring 0.5 credit

More than innocuous bedtime stories, fairy tales have long promoted a set of prescribed gender roles, often directed explicitly at a female audience. Classical fairy tales hold up marriage as the pinnacle of a woman's life, instruct young women in appropriate sexual behavior, punish female

curiosity, and endorse the nuclear family. Because these tales still loom large, they continue to participate in the construction of modern gender roles. In this course, students will explore a number of classical fairy tales from their surprisingly dark and violent early versions to their saccharine Disney renderings to contemporary queer and feminist re-visions, considering at each turn how fairy tales reflect and inform our ideas about gender. Authors studied may include Charles Perrault, the Brothers Grimm, Angela Carter, Anne Sexton, and Emma Donoghue.

Disclaimer: This course contains mature content not suitable for all students.

Restricted to: 11/12

E-416: Banned Books

Fall 0.5 credit

Book bans in public K–12 schools are on the rise: in the 2022–23 school year, PEN America recorded 3,362 instances of books banned including at least 1,557 unique titles (<https://pen.org/report/book-bans-pressure-to-censor/>). But book banning is far from new; in the sixteenth century, the Catholic Church compiled a list of banned books called the *Index Librorum Prohibition* which grew over centuries to include over 5,000 titles (Mark, Joshua J., "[Index of Prohibited Books](#)"). In this course, we will examine why, when, and how books are censored and banned and at what cost—or benefit? While book bans are often associated with the political right, we will also discuss when, how, and why censorship is endorsed from the left. Students will be asked to discover under what circumstances they personally find censorship or book bans ethical or even necessary. Given the focus of this course, students should expect to regularly encounter challenging, mature, and controversial issues such as violence and abuse, racism, sex, substance abuse, and grief and death. This course includes summer reading, outlined on the school's website.

Restricted to: 11/12

E-418: Ecolit: Literature of the Environment

Spring 0.5 credit

"I believe in the forest, and in the meadow, and in the night in which the corn grows" ("Walking," Henry David Thoreau, 1851). What shapes our conceptions of natural spaces? How do those natural spaces shape us? Through a survey of literary theory, essays, and short fiction, students will investigate the changing relationships between people and nature, as well as the capability of stories to define and redefine those relationships. Texts will expose students to varying definitions of naturalism, conservationism, wildness and wilderness, as well as varying understandings of landscape and ecologies. Throughout this course, students will partake in a combination of discussion, critical and reflective writing, as well as experiential learning—as Thoreau would say, "I have met with but one or two persons in the course of my life who understood the art of Walking, that is, of taking walks...every walk is a sort of crusade." Authors studied will include Robin Wall Kimmerer, bestselling author of *Braiding Sweetgrass*, among others.

Restricted to: 11/12

E-420 Dystopian Fiction

Fall 0.5 credit

This course will focus on texts that ask: “what if?” Together, we will imagine worlds in which familiar problems are magnified, intensified, or projected into the future. Students will consider how the dystopian fiction we’ll read speaks to our present moment, and thus, will be asked to engage with the issues of the day in a critical, open-minded, and intellectually rigorous manner. Selected texts may include *The Parable of the Sower*, *Fahrenheit 451*, *Station 11*, *The Handmaid’s Tale*, and the Academy Award-winning film *Her*. This course includes substantial summer reading and explores content that may be challenging to some readers.

Restricted to: 11/12

E-421 Literature of the Good Life

Spring 0.5 Credit

This interdisciplinary course asks students to read literature through an ethics lens. To this end, students in this course will tackle a series of interrelated questions: What does it mean to live a good, meaningful life? How conscious am I of the moral choices I make each day? What does it take to achieve self-actualization and fulfillment within any given social context? Within our various worlds and communities, what do we owe to each other? Students will read philosophy, explore the New York Times column “The Ethicist,” and engage in independent research to inform their responses to these enduring questions. Core texts may include the Netflix series *The Good Place*; Jean Paul Sartre’s play *No Exit*; Kazuo Ishiguro’s novel *The Remains of the Day*, and other selections.

Restricted to: 11/12

E-503 Advanced Studies Postcolonial Perspectives: Literature & Theory

Year 1.5 credit

“What colonialism does is cause an identity crisis about one’s own culture,” asserts Mexican-Kenyan actress Lupita Nyong’o. In response, the field of Postcolonialism contends with the complex and ever-evolving legacy of European colonialism through the perspectives of writers, artists, and theorists from formerly (and currently) colonized countries and territories. This Advanced Studies course will serve as an introduction to postcolonial literature and theory. Through studying a variety of literary works and scholarly texts from Africa, Asia, and the Americas, we will examine the fraught relationship between culture and imperialism, considering questions such as: What is the role of postcolonial literature, film, and art in shaping collective understanding of the aftermath of colonialism? How does colonialism continue to condition individual and collective identities? What are the political implications of postcolonial texts? How do postcolonial texts call into question and resist dominant narratives of knowledge and history? How do postcolonial texts interrupt the Western canon? How does postcolonial studies intersect with gender theory, critical race theory, and Marxism? Through examining fictional and theoretical texts, conducting research, and writing analytically, this course will help you develop the knowledge and the skills necessary to enter scholarly discourse that explores

these questions. This course includes summer reading, outlined on the school's website.
Restricted to: 11/12

E-504 Advanced Studies The Politics of Emotion

Year 1.5 credit

As Sara Ahmed writes, "Emotion is not what comes from the individual body, but is what holds or binds the social body together." Feminist and queer scholars like Ahmed have argued that emotions *matter* because they shape our approach to ourselves, to others, and to the world. In other words, emotions are personal and political. In directing our investment in the things around us, emotions also presumably *move* us to act; they govern our actions and motivate our behavior. This Advanced Studies course will examine the connection between emotion and social action through the "protest novel," a literary form that dramatizes a social problem with the goal of enacting material change. Through literary and scholarly texts, we will consider the role that literature can play in not only reflecting society but altering it. We will grapple with such questions as: What does it mean to feel in a particular way? How and why do we feel certain emotions towards certain things? What is the relationship between feeling and knowledge? How are emotions historically situated and embodied? How are they refracted through social relations such as race, class, sex, and gender? And, how do emotions mediate the personal and the political? Through examining fictional and theoretical texts, conducting research, and writing analytically, this course will help you develop the knowledge and the skills necessary to enter scholarly discourse that explores these questions. This course includes summer reading, outlined on the school's website.

Restricted to: 11/12

EXPERIENTIAL LEARNING COURSE DESCRIPTIONS

Experiential learning (EL) is a philosophy about lifelong education. The core tenant of EL is that people learn best when they experience, reflect, think, and act in a spiral process. EL educators employ flexible roles during this learning process that align with the four categories listed above, including coach, facilitator, expert, and evaluator.

In addition to Emma Willard courses that include elements of EL, the EL department is composed of four programs: career exploration, service learning and community engagement, Practicum, and Signature. Below are some of these course offerings.

Practicum

(Credit by application)

Practicum, Emma Willard's independent study program, offers students opportunities to enrich and extend their studies through academic and nonacademic experiences available on and off campus. Students individualize part of their weekly schedule through learning that is experiential and self-directed. Experiences fall under the following categories: arts, career

[Return to top](#)

exploration, college courses, community engagement and service learning, independent study, language study, sports and music. If applicable, the student or family pays instructor fees directly to the instructor.

Practicum opportunities are pursued in several ways: most common are part-time classes, volunteer work experiences, or other activities pursued on campus, in the Capital Region or in a student's home region. Some students pursue practicum projects full-time for a short period of time.

Each practicum experience is an integral part of a student's schedule, planned with guidance from the Director of Practicum, the student's Academic Advisor and College Counselor (if applicable). The Director of Practicum may also consult with the appropriate department chair. Qualified projects may earn academic credit but will not be used to satisfy departmental graduation requirements; please see the Director of Practicum with questions or to apply..

PRACTICUM SAMPLING:

- Finance & Entrepreneurship
- Law
- Horseback riding
- Assisting a first-grade teacher
- Fencing
- Tae Kwon Do, Hapkido
- History research
- Helping children with special needs
- Afterschool children's program volunteer
- Empire State Youth Orchestra
- Culinary arts
- Language Study
- Figure skating
- College courses
- Architecture
- Career exploration
- Hospital volunteer
- NYS Legislature

A part-time practicum (one to eight hours weekly) is arranged around free periods during the day, the evening, or on the weekend. A full-time practicum involves a concentrated period of time from one to three weeks in length and may require using vacation time and some released time from classes. A student is responsible for all assignments and classroom work missed while away. All practicum experiences are listed on student transcripts as Practicum: Independent Study, students work with their College Counselor to tell a compelling story about their experience as part of their time at Emma.

Students seeking academic credit must submit a proposal to the Director of Practicum by May 1 for Fall proposals and by December 1 for Spring. Late requests are seldom accepted. Requests must be resubmitted for each semester or year. Parental permission is required. All financial obligations to the school continue while the student is off-campus, and all expenses while away are the responsibility of the family. See the Director of Practicum for application guidance.

In general, the following guidelines are used to determine whether practicum credit will be given:

- The student has exhausted all on-campus opportunities to pursue a specific, demonstrated interest. An exception is made for day students who have been pursuing voice, musical instrument instruction, or dance before enrolling at Emma Willard School. These students may continue with that teacher and receive practicum credit.
- The school does not offer a course that would allow a student to pursue advanced level work in a specific area of demonstrated excellence.
- The student is not using this practicum to fulfill Emma Willard School graduation requirements in any department except for movement credit, which is granted by the athletic director and the practicum director for students pursuing competition-level or advanced sports training to fulfill a physical education requirement. Exceptions do not guarantee that the school will provide transportation.
- Students who pursue internships, other programs, or college courses that do not fit the criteria stated above, and who have not been granted an exception, will not receive academic credit nor will school transportation be provided. While under school jurisdiction, students must have parental permission and school permission to leave campus to participate in any internship, college course, or other program not granted academic credit by the school.

APPEALS PROCESS

Any student requesting exceptions to these guidelines must do so in writing to their Academic Advisor, the Director of Practicum, and the Chair of the Experiential Learning Department, who may consult with other Department Chairs as appropriate.. This group will arrive at a joint decision.

TRANSPORTATION

The practicum program provides subsidized transportation to students mainly through the Northeast Shuttle service to local practicum sites. For one-off or short term opportunities, Student SmartCard accounts are billed a fee at regular intervals based on the distance from EWS. Transportation to regularly occurring opportunities may be billed quarterly to a student's tuition statement. While every effort is made to accommodate students wishing to pursue local practicums, numbers may be limited because of scheduling considerations and cost. Students may be responsible for organizing their own transportation in some cases.

EL-255 STEAM Research 9th Grade

Spring 0.5 credit

STEAM 9 Research is for ninth graders who are interested in a STEAM field (science, technology, engineering, arts, math). Students begin by exploring several hands-on projects with select faculty. During the second half, students explore one of these projects in a small group, and make a poster for the school community. Students maintain a digital portfolio to document their work. Enrollment is by application and requires advisor approval.

Grading system: Credit/No Credit
Restricted to: 9

EL-256 STEAM Research 10th Grade

Year 0.5 credit

STEAM 10 Research is for tenth graders who have demonstrated interest in a STEAM field (science, technology, engineering, arts, math). Students begin by identifying their STEAM interests, and then develop their ideas into a personalized project done in small teams. Students work on their projects for the entire academic year and make a poster for the school community. Students maintain a digital portfolio to document their work.

Grading system: Credit/No Credit
Restricted to: 10

EL-400 Signature

Year 1 credit

Signature allows students to complete year-long capstone projects during their junior and/or senior year(s). This opportunity is for students who have an inherent connection to a topic and have sufficient time in their schedules, including fifty minutes per week as homework, to enroll in this course. Some students may additionally work with experts off campus to create their Signature. This course is designed to support students through each phase of their project, through assignments and dedicated individual time.

In class, students either learn about general topics, work with their manager on specific goals, participate in special classes (ex. invited guests), or use time to work on their projects individually. Students create and develop a digital portfolio for Signature, in which they add regular posts, and also complete course assignments. Final presentations, featuring the experience as well as the outcomes, are shared with the school community in the Spring Showcase.

Students working off campus may utilize the school's transportation service for a subsidized fee. Students requiring financial support for any reason should contact a program manager.

Managers are available to discuss ideas and offer advice for possible Signature projects and suggest people as resources for projects. This interaction is strongly encouraged. Students must apply and be accepted into the program for final enrollment. The Signature enrollment process is slightly different from normal course registration. Students may add Signature to their schedule to indicate interest, as they do for all courses, and they can expect future application steps to finalize acceptance into the program. The application can be found [here](#).

Grading: Credit/No Credit
Restricted to: 11/12

HISTORY & SOCIAL SCIENCE COURSE DESCRIPTIONS

The History and Social Science Department offers courses in history, art studies, and social sciences. These courses teach close reading, analytical writing, analysis, and synthesis. They stress observation and interpretation of primary sources; critical engagement with scholarship; research and writing; and seminar discussion of ideas.

HISTORY REQUIREMENTS

In 2025-2026, ninth graders will be required to take Classical Mediterranean History (H-110) in the fall semester and a ninth-grade world history elective (African History, East Asian History, or Indian History) in the spring semester. Tenth graders will be required to take a tenth-grade world history elective (European History, Latin American History, or Middle Eastern History) in the fall semester and Contemporary World History (H-210) in the spring semester. Each of the regional electives studies a culture's history and contact with the surrounding world, examining change over time and contemporary world history from social, political, economic, and cultural perspectives. Eleventh graders will be required to take United States History or Advanced Studies United States History. All the ninth-, tenth-, and eleventh-grade courses are designed to offer students a progression of reading, writing, research, and critical analysis skills.

COURSES IN THE REQUIRED 9TH-, 10TH-, AND 11TH-GRADE SEQUENCE

9th-Grade Required History Course:

H-110 Classical Mediterranean History

Fall 0.5 credit

This course examines the historical development of the classical Mediterranean world, from its origins in the early civilizations of the Aegean Sea to the decline of the Roman Empire. Significant attention is paid to the social, political, economic and cultural characteristics of classical Greece and Rome. Students also examine the geography of the region and its role in shaping history. In addition to the content mentioned above, students learn to read and analyze primary and secondary sources, develop analytical writing skills, participate actively and effectively in class discussions, practice research and citation skills, and learn how historians think.

Restricted to: 9(10)

9th-Grade World History Electives (spring, one per student is required):

H-111 African History

Spring 0.5 credit

This course explores major cultural, social, economic, and political developments in Africa from the early Iron Age kingdoms through the early twenty-first century. After a study of the major East and West African kingdoms, students explore topics including African adaptations of Islam and Christianity, the African response to the Atlantic slave trade and European imperialism, Africa during the world wars, the struggle against apartheid, and the legacy of colonialism. Throughout the course, special attention is given to primary sources, African voices, and the interactions of environment, climate, geography, and historical developments. Assignments

include readings in both secondary and primary sources as well as several longer research, writing, and cooperative learning projects.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 9(10)

H-112 East Asian History

Spring 0.5 credit

This course is designed to introduce students to the intertwined histories of China, Japan, and Korea from their early civilizations through the turn of the 20th century. Topics such as the early Yellow River civilizations, Chinese philosophy, the Silk Road, the Meiji Restoration, the Silla period in Korea, and the Korean War in 1950 are covered. Students explore the social, cultural, geographic, political, and economic history of East Asia through primary and secondary texts and research. This course also examines the interactions of East Asia with the rest of the world and the relationships of each of the East Asian countries with each other. The primary focus of the course is on China and Japan, with a secondary focus on Korea. Course requirements include regular readings and homework; independent research and historical analysis with an emphasis on writing; tests and quizzes; and cooperative learning projects.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 9(10)

H-113 Indian History: Origins of Civilization to the Early 20th Century

Spring 0.5 credit

This world history elective examines the history of India and its neighbors from the development of civilization in the Indus River valley through the origins of Hinduism and Buddhism, the spread of Islam into the region, and increasing contact with and colonization by Europeans. The course ends with the emergence of Indian nationalism and colonial resistance in the 20th century. Students explore these developments through their political, social, cultural, economic and environmental elements. Students also examine the connections between critical developments in Europe and the history of SouthEast Asia. Examples of these connections include the role of mercantilism and absolute monarchies in the establishment of trading empires in Asia and the relationship between the Industrial Revolution and the developing British colonial policy in India. Course requirements include regular readings and homework, research and analytical writing, tests and quizzes, as well as cooperative learning projects.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 9 (10)

10th-Grade World History Electives (fall, one per student is required):

H-211 History of the Middle East

Fall 0.5 credit

This world history elective examines the history of Mediterranean Asia beginning with the geography and culture of pre-Islamic Arabia and ending with the establishment of modern Mediterranean Asia after WWII. Students explore the region through its political, social, cultural, economic and environmental aspects. Special attention is given to the origins, beliefs

and practices of Islam, the development and spread of the Islamic empire, and moments of exchange and interaction with Europe, including the Crusades, WWI, and the development of the Modern Middle East. Course requirements include regular readings and homework, research and analytical writing, tests and quizzes as well as cooperative learning projects.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 10(11)

H-212 Latin American History: From Early Civilizations to the Challenges of the 20th century

Fall 0.5 credit

This world history elective examines the course of Latin American history from the development of sedentary communities such as the Olmecs and Toltecs to the major civilizations of the Mexica, Inca, and Maya, and through conquest and colonization to the end of the 20th century. Students explore the connections between critical developments in Europe and the history of the Latin American region. Examples of these connections include the relationship among the Renaissance, the voyages of exploration and the conquest of the Americas, as well as later forms of imperialism. Twentieth-century topics will also be addressed, including the implications of the Cold War for Latin America. Course requirements include regular readings and homework, research and historical analysis, and tests and quizzes, as well as cooperative learning projects.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 10(11)

H-213 European History

Fall 0.5 credit

This course surveys developments in European history from the Middle Ages through the unification of Italy and Germany and early imperialism. Students examine major social, political, and economic changes in Western Europe, beginning with the Renaissance and moving through the Reformation; Scientific Revolution and Enlightenment; French and Industrial Revolutions; and rise of conservatism, liberalism, nationalism, and imperialism. Course requirements include regular readings and homework, research and historical analysis, and tests and quizzes, as well as a cooperative learning project.

Prerequisite: Classical Mediterranean History (H-110)

Restricted to: 10(11)

Required 10th-Grade History Course:

H-210 Contemporary World History (final, or fourth, course in world history sequence)

Spring 0.5 credit

Beginning with the dawn of the 20th century and continuing through the present, this course looks at major developments in world history as seen in political, social, economic, and cultural affairs. Special attention is given to the causes and effects of the two world wars, the re-shaping of the world following World War II, emerging alignments and tensions following the end of the Cold War, and the range of interactions between regions in times of both peace and conflict.

This course is the capstone of the world history sequence, and students prepare a major project demonstrating their mastery of the skills necessary to analyze a particular historical problem and communicate their conclusions effectively.

Restricted to: 10(11)

11th-Grade U.S. History Courses (one year of U.S. History is required):

H-331 United States History

Year 1 credit

This course provides an introduction to United States history. Although the course will not provide a comprehensive survey of American history from the period of early contact through the present day, it will explore the most significant and recurrent themes of American history, paying particular attention to the evolving and highly contested notions of liberty, democracy, citizenship, and equality. After a brief survey of early foundational documents, the class will begin its in-depth exploration of the American past by examining the Civil War and Reconstruction era. The year's study will then extend through the late nineteenth and twentieth centuries, providing a rich context through which to think critically about our own early twenty-first century historical moment. While analyzing the nature of the American experience, we ask such questions as: What roles have race, gender, and class played in the lives and perceptions of the American people? How have factors such as economics, ideology, law, and religious faith interacted in shaping the country's history? Students spend significant time reading secondary and primary documents closely and critically, cultivating the ability to express ideas clearly and with sufficient factual evidence to be persuasive. At least one major research project allows students to explore the process of scholarship by studying a topic in depth.

Prerequisite: H-210 Contemporary World History

Restricted to: 11(12)

H-333 Advanced Studies United States History

Year 1.5 credits

This course offers an intensive introduction to the history of the United States. Although the course will not provide a comprehensive survey of American history from the period of early contact through the present day, it will explore the most significant and recurrent themes of American history, paying particular attention to the evolving and highly contested notions of liberty, democracy, citizenship, and equality. By the end of this course, students should not have gained not only a greater appreciation for the complexity and richness of our shared past, but also a keener understanding of the ways in which our shared American history continues to shape and influence the society and culture that we live in today. Students who complete this course will also be able to demonstrate the different modes of critical thinking, analysis, and presentation that are at the heart of the historical discipline. Specifically, the course will offer an initiation into the standards of historical study, including factual recall, document/artifact analysis, reasoned argumentation, clear communication (written and oral), and historiographic contextualization.

The course requires students to handle significant amounts of nightly reading, to analyze and synthesize primary source documents, and to write organized, well-developed, and

well-supported historical essays of various lengths. At least one research paper/project is required in this class. Admission to this class is contingent upon departmental and advisor approval, with continued enrollment dependent on consistent effort and performance. As with other Advanced Studies courses, additional assignments should be expected over school vacations. There is a summer reading requirement that includes a written essay (due on the first day of class). While this course aligns with parts of the Advanced Placement curriculum, it does not prepare students fully for the AP exam.

Prerequisite: H-210 Contemporary World History and completion of the summer assignment (reading and an analytical essay)

Restricted to: 11(12)

HISTORY AND SOCIAL SCIENCE ELECTIVES

H-320 Indigenous History of North America

Spring 0.5 credit

This course provides a general overview of American Indian history, art, literature, tribal law, government, and sovereignty. The course will focus on both the historical, as well as contemporary impact that Indigenous Peoples still have on the history and cultural development of the North American continent. This course offers an introduction to a variety of historical turning points remembered amongst Indigenous Peoples and settler-colonists from the seventeenth century through the twenty-first. Special attention will be paid to local history, including that of the Stockbridge Munsee Band of Mohican Indians. Students are expected to come to class prepared for discussion and collaboration, and they will be evaluated primarily on writing assignments and student-led projects.

Restricted to: 10/11/12

H-325 Advanced Studies Art History

Year 1.5 credits

This course provides an introductory survey of the history of art from early civilizations to the modern era. The course focuses primarily on art from the Western tradition, though students will also explore artistic traditions from around the globe, including Asia, the Americas, and the Islamic world. Students examine the formal/stylistic aspects of art as well as the cultural context in which that art was produced. Students become familiar with the principles of design, the processes of artistic production, and the fundamental elements of style in painting, sculpture, architecture, and other contemporary media. Understanding the formal elements of art allows students to explore the cultural issues surrounding artistic production, such as function, patronage, gender, ethnicity, politics, and religion. Ultimately, this course provides students with the visual literacy they need to understand their world fully. As with other advanced studies courses, additional assignments should be expected over school vacations. There is a summer reading requirement that includes a written essay (due on the first day of class). While this course aligns with parts of the Advanced Placement™ curriculum, it does not prepare students for the AP exam.

For students enrolled in Advanced Studies Art History, the course satisfies .5 credits of the arts graduation requirement, though it does NOT meet the distribution requirements for visual or

performing arts. For example, an incoming 9th grader would still have to take one course in visual arts and one course in performing arts, but Advanced Studies Art History would count as 0.5 credits toward the 2.0 total credits in art they need to graduate.

Prerequisites: H-210 Contemporary World History.

Restricted to: 12 (11)

H-324 International Human Rights Studies: Genocide

Spring 0.5 credit

Is genocide an aspect of human nature we cannot escape, or is it preventable? Considered by many scholars “the crime of crimes”, genocide has received increased attention since WWII. It was first recognised as a criminal activity in 1946 by the United Nations General Assembly under international law. This semester long Genocide Studies course is an in-depth examination into mass atrocities committed during the 20th century up to present day. The impacts of interest and identity, stereotypes and bias, prejudice and discrimination, are essential parts of a critical lens in understanding how genocide can be initiated. Students engage in extensive reading, analysis, and evaluation of a wide range of texts, including letters, diaries, and interviews, in a study of the voices and perspectives related to the genocide of the Herero, Holocaust, Armenia, Cambodia, Rwanda, and other examples. Combined with an understanding of relevant historical context, cultural, social, and political ideologies, students develop insights into the roles of victims, survivors, perpetrators, upstanders, and bystanders. To that end, students explore how ethics and moral choices are an essential approach in preventing atrocities, and how the use of civic action, advocacy, and education can help them leverage in finding ways for preventing genocide in the future.

Prerequisite: H-210 Contemporary World History

Restricted to: 12 (11)

H-326 United States Government and Politics

Year 1 credits

United States Government and Politics is a yearlong course that introduces students to the political history, institutions, and workings of American government. Students begin by exploring the foundations of American democracy, including pivotal works in American political thought, the debate surrounding the U.S. Constitution, and the Bill of Rights. Students then study key aspects of American government, including federalism, the separation of powers, the three branches of government, civil liberties, and civil rights. Students will explore how and why politics and public policy making continue to evolve in the United States, particularly with respect to economic, social, and foreign policy. Students will analyze both the role and impact of the Supreme Court, political parties, elections, public opinion, the media, interest groups, and political polarization in American democracy. Throughout the year, students will engage with current political issues and events, draw connections to the foundational concepts and themes in American politics, and understand the impact of these issues on the United States and the world.

Prerequisite: U.S. History (H-331) or AS U.S. History (H-333), or concurrently enrolled in H-331 or H-333

Restricted to: 11/12

H-364 Advanced Studies Comparative Government and Politics

Year 1.5 credit

Advanced States Comparative Government and Politics is a yearlong course that focuses on the world's diverse political systems, including their political history, institutions, and the impact of various political, economic, and social factors. This course begins with an introductory unit on the foundational concepts and theories in comparative government, and then proceeds to a country-by-country approach that addresses the similarities and differences among modern political systems, including developed democracies, developing democracies, and authoritarian regimes. Case studies will include countries around the world, such as the United Kingdom, India, Mexico, Brazil, South Africa, Nigeria, Russia, China, and Iran. Through this course, students will increase their understanding of the institutions, processes, and issues within each country's political system, and how they compare to other countries' political systems. Students will also engage frequently with current events, and will be able to analyze contemporary political issues, draw connections to the course material, and understand their impact on the world. This course has a substantial summer reading requirement that includes a written essay (due on the first day of class).

Prerequisites: H-210 Contemporary World History

Restricted to: 12 (11)

H-370 Advanced Studies Social and Cognitive Psychology

Fall 0.75 credits

AS Social and Cognitive Psychology is a challenging one-semester elective that examines the forces which shape and influence individual and group attitudes and behaviors. Topics covered will include, but are not limited to, the causes of prejudice, conformity, aggression and altruism, complex problem-solving, and cognitive biases and heuristics. Students will apply the concepts studied to critical historical cases as well as to problems of decision-making and cooperation in relation to current issues of social justice and climate crisis. Students are expected to come to class prepared to participate, and they will be evaluated on the basis of homework, journal entries, tests, and a major research project and presentation. Please note that H-371 Advanced Studies Psychology: Theories of Personality, Development, and Clinical Studies is not a prerequisite for H-370 Advanced Studies Social and Cognitive Psychology. These two psychology electives may be taken independently from one another.

Prerequisite: H-210 Contemporary World History.

Restricted to: 11/12

H-371 Advanced Studies Psychology: Theories of Personality, Development, and Clinical Studies

Spring 0.75 credits

AS Introductory Psychology is an advanced studies elective in which students will explore the history of the field as well as modern practices in an international context. Particular emphasis will be placed on various approaches to personality theory, related theories of development, and on psychopathology and therapies. Students will keep a journal throughout the course. Activities and assessments will include tests, cooperative learning tasks, and a major project

with a research paper component. The main text will be Eric Shiraev, *Personality Theories: A Global View* (Sage: Los Angeles, 2017). A variety of other readings will also be assigned, including scholarly sources. Please note that H-370 Advanced Studies Social and Cognitive Psychology is not a prerequisite for Advanced Studies Introductory Psychology: Theories of Personality, Development, and Clinical Studies. These two psychology electives may be taken independently from one another.

Prerequisite: H-210 Contemporary World History.

Restricted to: 11/12

H-388 Modern African American History

Fall 0.5 credit

This semester-long course will take as its organizational principle the basic assumption that African Americans have played a definitive role in the life of the United States. The course will begin with a brief overview of the African American experience before the 1910s and then move on to the primary focus of the course, which is the twentieth and twenty-first centuries. Prominent themes may include the Great Migration; northern urbanization; the development and legacy of the modern Civil Rights Movement; Black feminism and intersectionality in the 1970s and 1980s; environmental justice; and current issues, including the “New Jim Crow,” Black Lives Matter, and questions of reparations. Over the semester, we will engage with primary and secondary sources by such figures as Isabel Wilkerson, W.E.B. Du Bois, Marcus Garvey, Langston Hughes, Martin Luther King Jr., Malcolm X, James Baldwin, Audre Lorde, the Combahee River Collective, Michelle Alexander, Ta-Nehisi Coates, and Claudia Rankine.

Restricted to: 10/11/12

LANGUAGE COURSE DESCRIPTIONS

To become increasingly proficient language users and learners who can identify and navigate cultural nuance: these are the goals that the language department sets for Emma Willard students. Whether studying Chinese, French, Spanish, or Latin, every student experiences rigorous classroom training and stimulating opportunities for actively learning an additional language. In language study, classroom practice is enhanced by films, excursions, language tables, guest speakers, and the use of online tools. School-sponsored language programs abroad provide students with the unparalleled experience of living the language as they are learning it.

Which Language Should You Choose?

CHINESE. China is one of the world’s oldest and richest continuous cultures. Spoken by over one-fifth of the world’s population and recognized as the 3rd most spoken language in the U.S, Mandarin Chinese is the official language of China and several other countries and regions, including Taiwan, Singapore, and Malaysia. The enduring influence of Chinese language and culture has been inspiring East Asian and beyond. Although Chinese language differs from western languages in many ways such as pronunciation and writing system, learning the language is not as difficult as commonly assumed. At Emma, students will experience and

explore authentic Chinese language and culture through a four-level curriculum, each level being equivalent to a semester of college level Chinese. With China's escalating significance on the world stage and its advancements in technology, learning the language will also be invaluable for those pursuing careers in computer science, engineering, economics, business, banking, trade, and international affairs.

FRENCH. From learning the basics of the language to communicating with people from every continent, students will explore a myriad of cultures from the Francophonie (the French-speaking world). French is spoken on all five continents and plays a vital role in international diplomacy, business, and the arts. Courses at Emma Willard focus on building communication skills in reading, writing, speaking, presenting, and listening, with an emphasis on interactive and practical language use through authentic documents, conversations in class and with native guest speakers. We strive to create a dynamic and participatory classroom environment—students are expected to be active participants and are encouraged to immerse themselves fully in the language and culture.

LATIN. “It took Latin to thrust me into a bona fide alliance with words in their true meaning. Learning Latin (once I was free of Caesar) fed my love for words upon words, words in continuation and modification, and the beautiful, sober accretion of a sentence,” wrote Eudora Welty. Latin is intellectually rewarding. It can also help students learn other languages and improve their grammar and vocabulary in English. As they explore the fascinating language, strange-yet-familiar culture, and dazzling literature of the Romans, Latin students learn close reading, detailed grammatical analysis, etymology, rhetoric, and the foundations of many modern cultures.

SPANISH. To speak Spanish is to be able to communicate with the citizens of over two dozen nations and the increasingly numerous Hispanic communities within the United States. For young people seeking careers in an ever-changing, diversifying world, it is likely that their future professional and social communities will be Spanish-speaking. Authentic materials such as video, music, art and text by Hispanic authors will provide exposure to the culture and history of Spain and Latin America. In these courses, the student will develop the ability to communicate through written text and conversation in three modes: interpretive, interpersonal, and presentational. A student of Spanish can expect an active learning environment centered on participation.

Language Placement

New students who have begun the study of an additional language and plan to continue with that language must take a placement examination that evaluates all relevant language skills, including speaking, upon being accepted into Emma Willard School. The language department assesses the exam and places students accordingly.

Students, whether new or returning, who have taken a break of one year or more from studying a particular language and wish to resume their studies must take a placement examination.

A student who wishes to bypass a level of language study must reference the [Language Department Recommendation Philosophy and Petition Process document](#) to see if they fulfill the requirements to do so.

Graduation Requirements

Domestic students, even if bilingual, are required to have a successful completion of the third (300) level of a single language following an initial placement test at Emma Willard. Please know that the most selective colleges would like to see all four years of all five core classes on a transcript.

Transfer students who did not complete level III of a language at their last institution and took a language not offered at Emma Willard will be asked to take a new language on campus until graduation.

Language Signature and One Schoolhouse

If students have taken all the courses offered in the language of their choice at Emma, they have two options to consider to continue with their education:

Language Signature: Students may choose to focus on an area of personal interest with the support of the Language Department on campus. Please see [the requirements and standards here](#).

One Schoolhouse: Students may seek permission to enroll in online courses with this institution. In order to do so, students must have all three periods of one block free within their daily schedule. This counts as an AS course. Their grades from One Schoolhouse will appear on their Emma Willard transcript. Please see the course catalog for [this institution here](#).

Language Exemptions

International Bilingual Students: International students who are bilingual are not required to take a language at Emma Willard School in order to graduate. Their transcript will contain the language "This student is language exempt. Reason: This student is international and bilingual." Adults on campus will also be able to see this exemption in the notes section of their profile on MyEmma. Once again, please remember the most selective colleges would like to see all four years of all five core classes on a transcript for all students.

Some international bilingual students that want to take an additional language may be asked to successfully complete their English Support class(es) before they are allowed to do so.

Students with Documented Disabilities: Students with learning disabilities may be considered for a language exemption when their disability specifically impacts their ability to process language.

New entrants who have documentation of an existing language exemption from a previous school will be eligible for a language exemption at Emma Willard School. New entrants who have documented learning disabilities but who were not previously exempted will be enrolled in an additional language with appropriate accommodations, and their progress will be monitored for at least eight weeks before additional support is considered.

Existing students who are diagnosed with learning disabilities while a student at Emma Willard will be granted appropriate accommodations, and their progress will be monitored for at least eight weeks before additional support is considered.

If an exemption is determined to be the necessary course of action based on subsequent progress monitoring, the student will be permitted to drop the class without a W appearing on their transcript. This exemption will be flagged on the transcript and appear in the notes section of their student profiles. In this case the language will say, "This student is language exempt." No reason will be provided.

No student is required to be exempt, and all students are welcome to enroll in a language if they wish.

CHINESE

L-170 Chinese I

Year 1 credit

This introductory course is the first step in students' Chinese learning journey at Emma Willard and is designed for students with little to no background in the language. This course introduces Chinese pronunciation and tones and provides students with a strong foundation in the mechanics of the language with an equal emphasis on listening, speaking, reading, and writing. Students will also be introduced to topics in Chinese culture, and will be able to practice their Chinese skills in real world activities such as calling friends and exchanging postcards with students in China. By the end of the year, students will be able to comprehend paragraph level discourse and express themselves in complete, thematically connected sentences on familiar topics such as family, friends, school, food, dorms, shopping, and travel.

L-270 Chinese II

Year 1 credit

In this intermediate language course, students continue to strengthen their listening, speaking, reading, and composition skills in modern Mandarin Chinese. Through an exposure to a wide variety of topics pertaining to daily life and society, students will further develop the skills to express themselves with increasing nuance and complexity. Students will have many opportunities to practice their Chinese language skills, such as calling for food/drink delivery,

asking directions, doing surveys, and sharing their life via vlog. Students will research topics in Chinese culture and present their findings to the class. By the end of the year, students will not only be able to comprehend paragraph level discourse, but also confidently carry on extended conversations and narrate stories about an increasingly diverse range of topics such as the weather, Chinese cuisine, visiting the doctor, dorm life, sports, and international travel.

Prerequisite: Chinese I (L-170) or recommendation of the department

L-370 Chinese III

Year 1 credit

At this high-intermediate to pre-advanced Chinese language course, students hone their interpersonal, interpretive, and presentational communication skills through a variety of projects and exposure to a wide variety of authentic language materials such as songs, TV shows, commercials, and films. Students also develop their narrative, argumentative, and persuasive writing skills through the completion of regularly assigned compositions. Students will practice their new Chinese skills in real world activities such as community service, interviews to native speakers, story writing and role performing, celebrating Chinese festivals by making traditional handcrafts and cooking traditional food, and more!

Prerequisite: Chinese II (L-270) or recommendation of the department

L-471 Advanced Studies Chinese IV

Year 1.5 credits

This Advanced Studies Chinese language and culture course in Mandarin Chinese is equivalent to fourth semester Chinese in an intensive university language program. This course emphasizes communication by applying interpersonal, interpretive, and presentational skills to real-life situations. Students will be in close contact with the local Chinese community through projects such as interviews. The Advanced Studies Chinese language and culture course engages students in an exploration of culture in both contemporary and historical contexts including history, philosophy, poetry and more. The course develops students' awareness and appreciation of cultural products, practices, and perspectives. It also helps students develop their critical thinking and analytical skills.

Prerequisite: Chinese III (L-370) or recommendation of the department

Restricted to: 10/11/12

FRENCH

L-130 French I

Year 1 credit

This is an active class that gives the beginning student the vocabulary and grammar structures necessary to communicate on a basic level with French speakers on a variety of familiar subjects such as school, home, activities, etc. The student will learn how to formulate sentences, paragraphs, and dialogues through listening, speaking/presenting, reading and writing. Of equal importance are activities offered to acquaint students with myriad cultural aspects and the diversity of the francophone world. Pair and group work, use of audio, video, and other authentic materials ensure that students take ownership of creating a strong foundation in the

language while answering essential questions such as, “where can language take me?” and “how does learning another language challenge my assumptions?”

L-230 French II

Year 1 credit

In this course students review the fundamentals of French I while gradually building new vocabulary banks and learning to use additional tenses and grammar structures. By means of written and oral practice, selected readings, audio passages, and lesson-related videos, students improve their skill in speaking, listening, reading, and writing. Cultural topics are introduced through occasional readings and visual aids. Students finish the course with a stronger foundation in the language and a growing confidence which will allow them to take risks and learn from their errors. They will be well immersed in the notion that thoughtful practice leads to improvement.

Prerequisite: French I (L-130) or recommendation of the department

L-330 French III

Year 1 credit

Taught in an immersive French environment, students in French III communicate not only about their own lives, but also about the world around them. Students make cross-cultural connections and comparisons that enable them to expand their understanding of the target language. Through discussion of the material presented, whether reading articles or classic short stories, viewing videos or completing listening exercises, they enrich their vocabulary, gain insight into varied francophone cultures, and achieve greater ease in oral and written communication. Students recount events and experiences orally, read short authentic material for main ideas, and write about familiar topics using more complex grammatical structures. They engage in targeted and scaffolded conversations with their peers and can be understood by native speakers accustomed to dealing with foreigners. Emphasis is on consistent use of the language for classroom activities as students discuss issues of interest in the United States as well as the French-speaking world. Students continue to fine-tune their listening, speaking, reading and writing skills in order to become confident and capable communicators in French. Level III students finish the year ready to further develop their language skills and cultural knowledge in our level IV college level course.

Prerequisite: French II (L-230) or recommendation of the department

L-431 French IV: Exploration of the *Francophonie* (French-speaking World) beyond French Borders

Year 1 credit

Through the study of history, geography, music, literature, the arts and other authentic materials, students will explore various facets of the Francophonie. Students will come to understand the connections that exist between French-speaking provinces, territories and countries such as Quebec, Les Antilles (Guadeloupe/ Martinique), Côte d'Ivoire, to name a few, and how those connections have implications on culture, daily life, and the world at large. This course will entail debating, reading, essay writing, and listening to media, all in French! It is thus required that students be comfortable and knowledgeable with the language.

[Return to top](#)

Prerequisite: French III (L-330) or recommendation of the Language Department
Restricted to: 10/11/12

L-532 Advanced Studies French V: French Identity(ies)

Year 1.5 credits

“The moment you become French, your ancestors are Gallic; it is Vercingetorix. My father is Hungarian; I wasn’t taught the history of Hungary. My maternal grandfather is Greek; I wasn’t taught the history of Greece. When I am French, I love France, I learn the history of France, I speak French, my ancestors are the ancestors of France. That’s what assimilation is.” -Nicolas Sarkozy on national identity. The former French President, if not a pioneer in addressing the issue, managed to turn it into the biggest controversy of this last decade. What was initially, in the late 70s, the stance of the far right has taken a central place in the national discourse. If controversial, can we consider this question legitimate? And what does it mean to be French in the 21st century? First, by trying to understand what is/makes a nation, we will consider diverse approaches (historical, cultural, civic and elective) to find trends. The process will include, but won’t be limited to, going back to major periods of French history (from “Les lumières” to the revolution, through slavery, colonization, WWII or the War of Algeria) and considering social aspects such symbols, religions, secularism, women’s rights, discrimination, and immigration. The objective of this AS course is to give students the tools to reflect on French identity and the rise of a narrow vision of nationalism, not only within Europe but all over the world, and to see if there are parallels in the country you call home.

Prerequisite: French IV (L-431) or recommendation of the department
Restricted to: 11/12

LATIN

L-120 Latin I

Year 1 credit

Latin I introduces students to the manifold delights of Latin with the first book of Suburani: A Latin Reading Course. In the process of learning grammar and vocabulary from a graphic novel, Latin I students practice critical thinking and observational skills. Games, songs, and projects complement the textbook’s reading- and writing-based approach. Students also learn about ancient Roman culture and history and their modern receptions as they master the language: A project on museums, including a trip to the Boston Museum of Fine Arts, is a highlight. Latin I focuses on the tenses of the indicative mood and the uses of all of the cases of nouns. By the end of the course, students are able to read simplified Latin texts. As they work, students gain a deeper, more precise understanding of English grammar and the grammar of other Indo-European languages they may study. In addition, they accumulate many root words which will serve them well in understanding college-level written English.

L-220 Latin II

Year 1 credit

Latin II continues students’ adventures in the language, culture, and history of the Romans. In the second book of Suburani: A Latin Reading Course, students encounter sophisticated

grammar including participles and the subjunctive mood. As in Latin I, students practice critical thinking and observational skills while learning grammar and vocabulary from a graphic novel. Games, songs, and projects continue to complement the textbook's reading- and writing-based approach. This work deepens and refines students' understanding of English grammar and the grammar of other Indo-European languages. By the end of the course, students have covered nearly all of the noun and verb inflectional system and have begun to examine authentic, Roman texts. This course also guides students to a deeper understanding of Roman culture and history and their modern receptions through increasingly complex readings and projects. In addition, they accumulate many root words which will serve them well in understanding college-level written English.

Prerequisite: Latin I (L-120) or recommendation of the department

L-320 Latin III

Year 1 credit

Latin III brings students from studying grammar and reading textbook Latin to reading Latin literature "in the wild" with plenty of grammatical support. After a quick review of grammar from previous years, we finish Suburani: A Latin Reading Course. We then dive into love poetry and political oratory to explore themes including character and persona, gender, love, citizenship, and social class. Students learn about rhetoric and poetic meter, and they practice analyzing sentence structures, reading closely, and investigating how texts interact with their historical contexts. Wherever possible, experiential and project-based learning enrich our approaches to literature: Students reenact a political crisis of the late Roman Republic in preparation for studying Cicero's First Catilinarian Oration, for example, and compose their own speeches in Latin.

Prerequisite: Latin II (L-220) or recommendation of the department

L-422 Latin IV: Literature and Empire

Year 1 credit

In Latin IV, students explore relationships between art and power in Rome's transition from republic to empire and in modern receptions of Roman literature. We begin by reviewing key grammatical structures while reading a modern novella in Latin. Then, as we read passages from Vergil and Ovid, students practice analyzing texts in relation to their historical contexts, and they develop creative projects to explore specific questions in greater depth. As in Latin III, experiential and project-based learning enrich our approaches to literature: Students learn about manuscripts and the transmission of texts, for example, and then try their hands at textual criticism. Latin IV and AS Latin meet for class and work together.

Prerequisite: Latin III (L-320) or recommendation of the department

Restricted to: 11/12

L-423 Advanced Studies Latin IV: Literature and Empire

Year 1.5 credits

In AS Latin, students join ongoing, scholarly conversations about relationships between art and power in Rome's transition from republic to empire and in modern receptions of Roman literature. We begin by refining our understanding of key grammatical structures while reading

a modern novella in Latin. Then, as we read passages from Vergil and Ovid, students practice technical skills such as parsing grammar and scanning meter; write short essays driven by close readings; and develop research projects to explore specific questions in greater depth.

Experiential and project-based learning again enrich our approaches to literature: Students learn about manuscripts and the transmission of texts, for example, and then try their hands at textual criticism. An extended reading list, college-level research projects, and advanced methods of scholarship challenge students to think both deeply and expansively. Latin IV and AS Latin meet for class and work together.

Prerequisite: Latin III (L-320) or recommendation of the department

Restricted to: 11/12

SPANISH

L-160 Spanish I

Year 1 credit

After successfully completing Spanish I, students are able to carry on short conversations with acceptable pronunciation, intonation, and syntax and write answers to questions in the present and past tenses. They also are able to express themselves about future events. Students develop confidence in oral work and broaden their knowledge of cultures that embrace Spanish as their official language. Work in the textbook is accompanied by short readings and extensive work on the Supersite, which includes tutorials, videos, and more.

L-260 Spanish II

Year 1 credit

In this course students continue to develop skills learned in Spanish I, including reading, writing, and speaking. Students will learn how to narrate stories in the past tense and how to make requests and recommendations to others alongside topics such as medicine, household chores and care, and natural resources. Class activities include reading and acting out dialogues, conversing in Spanish, reviewing grammar exercises, and writing compositions. Through coursework, students read short stories and view videos according to their level. Supersite work continues to be important.

Prerequisite: Spanish I (L-160) or recommendation of the department

L-360 Spanish III

Year 1 credit

This course provides an in-depth review of Spanish grammar covered in previous years as well as a deep dive into the many ways to talk about hypothetical situations in the language. Special emphasis is placed on building vocabulary, mastering the language in reading and writing, and perfecting communication skills in Spanish. Through videos and short readings, students examine various aspects of Hispanic culture and are expected to do a considerable amount of speaking about the material. They also are introduced to Hispanic literature and art by examining selected works of prominent artists. Supersite work continues to be important.

Prerequisite: Spanish II (L-260) or recommendation of the department

L-460 Spanish IV

Year 1 credit

Spanish IV emphasizes advanced communication skills and meaningful engagement with art and literature from the Spanish-speaking world. Students explore short films and works by Hispanic authors, examining themes that reflect the diversity and complexity of Spanish-speaking cultures. Class activities focus on oral proficiency through discussions, debates, and presentations, while writing assignments encourage clarity, creativity, and thoughtful expression. Advanced grammar is integrated into the course to enhance fluency and support students in expressing complex ideas with confidence.

Prerequisite: Spanish III (L-360) or recommendation of the department

L-561 Advanced Studies Spanish V: Migration and Identity

Year 1.5 credits

This course explores the relationship among identity, citizenship, migration and human rights. Through studying personal narratives, short stories, news articles, scholarly journals, film, podcasts, and other sources, the course provides students with a deep dive to better understand the migrant experience in the United States, and focuses on issues such as cultural assimilation, socioeconomic status, bilingualism, equity and inclusion among others. Through reading, debates, essay writing, projects, interviews, and exposure to other authentic materials, students develop proficiency in the interpretive, presentational, and interpersonal modes of communication, and gain awareness of their own identity through questions such as: “What does it mean to be American?”, “How does our life experience form who we are as individuals and communities ?” and “How does understanding others’ experiences help us understand ourselves?”. This course is taught exclusively in Spanish. As with other AS courses, additional assignments are required during school vacations.

Prerequisite: Spanish IV (L-460) or recommendation of the department

MATHEMATICS COURSE DESCRIPTIONS

Today’s students will spend their adult lives in a world influenced by technology and quantitative methods. For this reason, every Emma Willard student is asked to focus on mathematics as a problem-solving tool.

To prepare our students for mathematics at any college or university, and to increase students' proficiency and confidence in all areas of mathematics, we teach with a variety of pedagogical methods. Students are exposed to traditional algebraic and problem-solving methods, and teachers frequently make connections between mathematics and its applications in other disciplines. As Emma Willard students progress through the mathematics curriculum, they learn to do more sophisticated work with technology, including graphing calculators, spreadsheets, and online tools such as Desmos and GeoGebra.

It is increasingly important to prepare students for the study of both calculus and statistics, as many students will take both of these courses in college. For this reason, Discrete Math with

Statistics (M-440), Precalculus (M-450), and Precalculus with Non-Routine Problems (M-460) are offered as some of the fourth-year electives. Precalculus covers topics in both pre-calculus and pre-statistics mathematics and serves as the prerequisite for all fifth-level courses. After completion of Precalculus, students may be recommended by the department for some of the fifth-level courses, including Calculus (M-500), AS Statistics (M-540), and AS Calculus AB (M-550). Successful completion of AS Calculus AB qualifies students to take AS Calculus C with an Introduction to Multivariable Calculus (M-566). Advanced students may also have the opportunity to pursue independent work through a Practicum or a Signature project. Finally, an understanding of computation and what we can and cannot do with computing devices is relevant to today's technological world. A variety of computer science electives teach coding to students in both the Java and Python languages.

Extracurricularly, students have the opportunity to participate in math and computer science competitions, such as the New York Mathematics League, the American Mathematics Competition, and the Siena College High School Programming competition.

Independent Problem-Solving Skills at the Fifth-year Level: By the time students study at the fifth-year level in mathematics, they should be independent, self-sufficient learners. They need to be able to employ many abstract theoretical concepts for success in these courses. A capacity for individual work and a high level of self-motivation are expected in and out of the classroom.

Placement: Upon enrollment, all new students complete a mathematics test to help determine placement.

WHICH MAIN-SEQUENCE MATH COURSE SHOULD I TAKE NEXT YEAR?

note: electives are also always a possibility

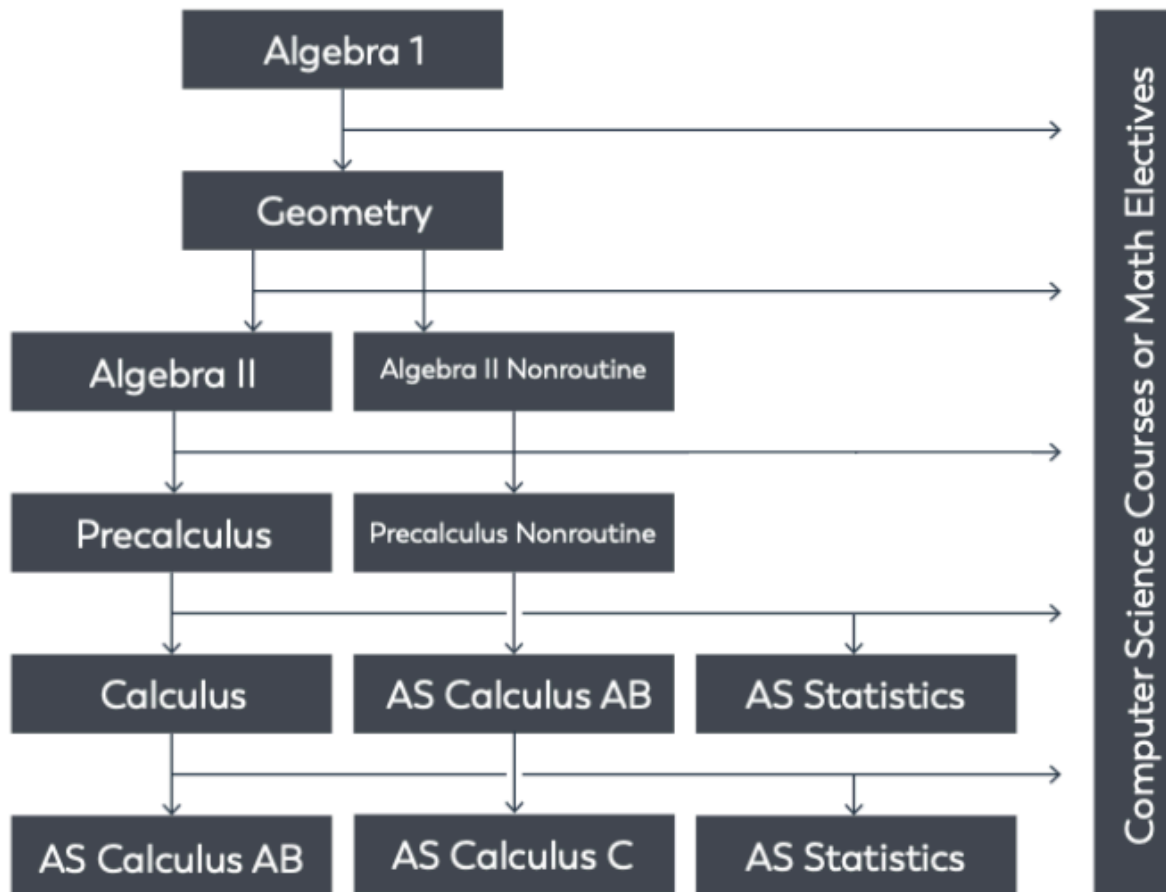
Course this year	Possible course(s) next year
Algebra I (M-125)	Geometry (M-225)
Geometry (M-225)	Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326)

Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326)	Thinking Mathematically (M-440) Financial Literacy (M-445) Precalculus (M-450) or Precalculus with Non-Routine problems (M-460)
Precalculus (M-450) or Precalculus with Non-Routine problems (M-460)	Calculus (M-500) or AS Calculus AB (M-550) and/or AS Statistics (M-540)
Calculus (M-500)	AS Statistics (M-540) and/or AS Calculus AB (M-550)
AS Calculus AB (M-550)	AS Calculus C with an Introduction to Multivariable Calculus (M-566) and/or AS Statistics (M-540)
AS Calculus C with an Introduction to Multivariable Calculus (M-566)	AS Statistics (M-540) or Linear Algebra (One Schoolhouse online course) ¹

Computer Science courses: A computer science course may be taken in the same year as a math course or computer science may be taken alone if the student has completed the math graduation requirement (successful completion of an Algebra II and Trigonometry class.)

Is it possible to “jump” from a routine level course to a non-routine level the next year? Yes! If you are consistently earning 95 or higher on tests and quizzes (prior to retakes or test corrections) in a routine level course, you may be recommended for the non-routine (or AS) level the next year. Under the same conditions, Algebra 1 students may be recommended to double in Geometry and Alg 2 during the next year.

¹ Linear Algebra is NOT an AS course. Students who enroll in this course are extremely capable math students and report that the workload of the course is not at the 1.5 credit level of Emma AS courses.



M-115 Math Support I

Year 0.5 credit

This course is designed to help students enrolled in Algebra 1 improve their mathematical thinking skills through a concentration on numeracy, algebraic problem solving, and proportions. The course's main objective is to create a personalized strategy to meet each student's specific needs in math and science. Members of the course will work individually and in small groups and be taught by a math instructor. The instructor will provide customized feedback that identifies problem areas; the teacher will also provide instructions/support on how to strengthen these areas. Within this group, students will be encouraged to reach out whenever they need additional math support outside the classroom. Students take this course by recommendation of the mathematics department and the Learning Support Coordinator.

M-125 Algebra I

Year 1 credit

In this course, students expand their notion of a variable and connect it to algebraic and problem-solving techniques. This is a comprehensive course that lays the foundation for both Geometry and Algebra II and Trigonometry. Topics include signed numbers, radicals and radical operations, functions and function notation, linear equations, systems of linear equations,

exponents, the quadratic formula, polynomials, and factoring. Students in this course learn to translate verbal statements into mathematical statements, clarify procedural questions, solidify arithmetic skills, and work with the coordinate plane. Students explore linear, exponential and quadratic functions and their graphs in the context of real-world scenarios using technology.

M-225 Geometry

Year 1 credit

This course combines discovery, construction, technology, and proof-based explorations of plane geometry. Topics include understanding both inductive and deductive reasoning, polygon congruence and similarity, right triangle properties including trigonometry, parallel lines and associated angles, circle and line relationships, transformations, and areas/volumes. Students will regularly use manipulatives and physical tools of geometry to translate verbal geometric relationships into accurate diagrams to assist with problem-solving. Proficiency in basic algebra is expected and necessary.

Prerequisite: Algebra I (M-125)

M-290 Introduction to Engineering Design

Spring 0.5 credit

Do you want to invent something? Create a solution to a need? Design an interactive art piece? This project-based course will let you take a concept from an idea to a working product. Learn the engineering design process by designing, prototyping, revising, and building products that implement your vision. Learn to use CAD (computer aided design) software, a vector drawing app, 3D printers, electronics, and manual construction methods to create your models. You will communicate your design intent by creating engineering drawings and presenting your ideas to others. In this course you will learn by doing.

Grading system: Credit/No Credit

Prerequisite: Algebra I (M-125)

M-315 Math Support II

Year 0.5 credit

This course is designed to help students enrolled in Geometry or Algebra II and Trigonometry improve their mathematical thinking skills through a concentration on algebraic problem solving. The course's main objective is to create a personalized strategy to meet each student's specific needs in math. Members of the course will work individually and in small groups and be taught by a math instructor. The instructor will provide customized feedback that identifies problem areas and will also provide instructions/support on how to strengthen these areas. Students take this course by recommendation of the mathematics department and the Learning Support Coordinator.

Prerequisite: Algebra 1 (M-125) or Geometry (M-225)

M-325 Algebra II and Trigonometry

Year 1 credit

This course continues to develop independent problem-solving while expanding skills to solve, graph and interpret parent functions, including linear, absolute value, and quadratic equations,

as well as higher-degree polynomial functions, inverse functions, logarithmic functions, rational functions, and trigonometric functions. Students are expected to reason independently and formulate questions based on insights into applications of the algebra previously studied.

Prerequisite: Geometry (M-225)

Corequisite: Geometry (M-225) with permission of Math Department Chair

M-326 Algebra II and Trigonometry with Non-Routine Problems

Year 1 credit

This course covers the same topics as M-325, but with an additional focus on developing students' understanding of the meaning of mathematical models. Through unique homework and laboratory problems, students will spend a substantial amount of time studying applications of functions to real-life, non-routine problems.

Prerequisite: Geometry (M-225) and recommendation of the department

Corequisite: Geometry (M-225) with permission of Math Department Chair

M-340 Introduction to Coding with Python

Fall 0.5 credit

Python is known for being a great introductory language for those who are new to coding. Students in this half-year course will learn the basics of Python, including printing, performing mathematical calculations, understanding variables and how to use them, writing conditional statements (`if` statements) and loops (`for` loops and `while` loops), creating and using functions, and working with lists and tuples. Students will work on a series of mini-projects that encourage creativity and problem-solving skills. This work will culminate in a final project of their choice, showcasing their ability to write and understand Python code. The foundational understanding gained in this course can be built upon in further Computer Science courses, either at Emma or beyond.

Prerequisite: Geometry (M-255). No prior coding experience is necessary.

M-345 Introduction to Data Science with Python

Spring 0.5 credit

This half-year course delves into the practical applications of Python in the field of data science, offering students an opportunity to explore and manipulate real-world data sets. Students will: gain a solid understanding of data science concepts, including data collection, cleaning, analysis, and interpretation; learn to effectively use Python libraries like Pandas for data manipulation and Matplotlib for data visualization; develop skills in analyzing large data sets, creating compelling visualizations, and interpreting data trends and patterns; engage in hands-on projects that simulate real-world data challenges, fostering problem-solving and critical-thinking skills; and, if time, get an introductory overview of machine learning techniques using and Scikit-learn. Upon completion of this course, students will be equipped with practical data science skills, a deeper understanding of Python programming, and a foundation for further courses in computer science and data science.

Prerequisites: Geometry (M-255) and Introduction to Coding with Python (M-340), AS Computer Science Explorations (M-530), AS Computer Science with Java (M-556), or, with

approval from the instructor, any other introductory coding course/experience at a prior school or coding club.

M-440 Thinking Mathematically

Fall 0.5 credit

In today's world it is becoming increasingly necessary for every citizen to approach mathematical thinking with confidence and competence. Topics covered in this course include set theory, logic, and probability. Students will also study real-world topics such as voting and apportionment and personal finance including the cost of borrowing money. This class incorporates experiential learning such as field trips exploring real-world applications of data science. Assessments include tests and quizzes as well as major projects that will incorporate the use of spreadsheets and writing about statistics.

Prerequisites: Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326) and recommendation of the department

M-445 Financial Literacy

Spring 0.5 credit

This course is designed for students interested in learning how to use money to achieve stability and freedom, reach goals, and give back to others. In Financial Literacy, students are introduced to numerous concepts related to how money works in the modern world, as well as to how these concepts have evolved over time. Topics include careers and compensation, budgeting, evaluating savings and investment methods, and taxes. Special focus will be given to understanding compound interest of assets and debts, as well as balancing investment risk and reward. Students will study various types of taxes and how different savings methods affect tax liability. They will study entrepreneurship, taxes related to self-employment, and business incorporation. Students will read literature related to personal finance and listen to guest speakers, with a special focus on female authors and guests. This course involves independent and project-based work, as well as course-related reading and some writing and research.

Prerequisites: Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326) and recommendation of the department

M-450 Precalculus

Year 1 credit

This course is designed for students who have mastered the study of basic trigonometry, geometry and algebra. In Precalculus, students are introduced to different areas of study in higher-level mathematics. Topics may include advanced trigonometry, combinatorics and probability, functions, modeling, statistics, analytic geometry, series, and limits. The course assumes that students employ effective questioning skills: not just procedural, but analytical. In addition, students apply a range of methods when problem-solving. This course involves significant independent work, and students are responsible for assessing their progress, seeking help in the Math Learning Center as necessary. Students will complete a summer assignment for this course.

Prerequisites: Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326) and recommendation of the department

M-460 Precalculus with Non-Routine Problems

Year 1 credit

This course is designed for students who have strong backgrounds in trigonometry and algebra. Students study various topics of precalculus which include advanced trigonometry, functions, mathematical modeling, elementary combinatorics, analytic geometry, limits, complex numbers, polar coordinates, polynomial theorems, probability, statistics, matrices and sequences and series. In addition, students examine non-routine problems which will require creative problem-solving skills and quantitative writing. The successful student in this course will be proactive both in and out of the classroom and will seek help when necessary. Students should be able to do independent work, and be comfortable initiating discussions as well as asking questions. Students should expect to draw from a variety of problem-solving skills to pursue not only the mechanics of problem-solving but also the concepts behind the problem. Students will complete a summer assignment for this course.

Prerequisites: Algebra II and Trigonometry (M-325) or Algebra II and Trigonometry with Non-Routine problems (M-326) and recommendation of the department

M-500 Calculus

Year 1 credit

This course is designed for students looking for a moderately paced course in calculus. The course covers the traditional topics limits, continuity, and differential and integral calculus, preparing students well for college and/or continued study in mathematics.

Prerequisites: Precalculus (M-450) or Precalculus with Non-Routine Problems (M-460) and recommendation of the department

M-530 Advanced Studies Computer Science Explorations

Year 1.5 credits

Have you ever wondered how photos and sounds get stored in your phone? How machine learning and artificial intelligence works? How objects get animated to move across a screen? If so, this may be the course for you! Computer Science Explorations is a survey course of the many branches of computer science: from coding to ciphers; from digital information to machine learning, computer vision, and artificial intelligence; from the history to the future of computing devices. Students will gain an understanding of the impacts (both positive and negative) of computing innovations and develop coding skills that can help launch creative solutions to real-world problems. A summer assignment consisting of about 12 hours of independent, introductory coding will be given (lessons with videos will be provided).

Prerequisites: Geometry (M-225) and English I (E-100). Students do not need to have prior knowledge of any programming language. Students do not need a recommendation to request this course.

M-540 Advanced Studies Statistics

Year 1.5 credits

This course offers a thorough examination of data analysis, data production, and statistical inference. Topics include the normal distribution, correlation and regression, experimental

design, sampling distributions, probability theory, confidence intervals, tests of significance, and the Chi-Square Test. Diverse areas such as economics, medicine, and politics are incorporated into discussions of statistical topics. Students should expect significant reading, written analysis, and interpretation as parts of statistical inference. As with other AS courses, additional assignments may be given over school vacations, and summer work is required.

Prerequisites: Precalculus (M-450) or Precalculus with Non-Routine Problems (M-460) and recommendation of the department

M-550 Advanced Studies Calculus AB

Year 1.5 credits

This course develops the theory and presents some applications of differential and integral calculus. It covers limits, continuity, derivative functions, and the definite integral. Derivative rules and applications complete the study of differential calculus. Development of the fundamental relationship between differential and integral calculus is followed by additional work with integrals and their applications. Students should expect a substantial summer assignment.

Prerequisites: Precalculus (M-450) or Precalculus with Non-Routine Problems (M-460) and recommendation of the department

M-556 Advanced Studies Computer Science with Java

See the “Rotating Math Courses” list on the next page.

M-566 Advanced Studies Calculus C with an Introduction to Multivariable Calculus

Year 1.5 credits

This course is a continuation of AS Calculus AB (M-550). Topics include integration by parts and by partial fractions, improper integrals, curve length, infinite series, and parametric and polar functions. The Multivariable Calculus portion of the course will cover the following topics: the 3-space coordinate system and relationships within it, including vectors, lines, and planes; quadric surfaces, functions of two variables, partial derivatives, and gradients. As time permits, additional topics may be covered. This course will provide students with a solid foundation for success in college Calculus III and is helpful for students who plan to study engineering, math, physics or chemistry in college. Students should expect a substantial summer assignment.

Prerequisites: AS Calculus AB (M-550) and recommendation of the department

Students who successfully complete M-566 Advanced Studies Calculus C with an Introduction to Multivariable Calculus before their senior year may take an online course in Linear Algebra through One Schoolhouse the following year.²

ROTATING MATH COURSES

² Linear Algebra is NOT an AS course. Students who enroll in this course are extremely capable math students and report that the workload of the course is not at the 1.5 credit level of Emma AS courses.

Based on student demand, the following course did not run during the 2024-2025 school year. We anticipate that it will run during 2025-2026, but it may not run again in 2026-2027. Students should consider carefully what year they might want to take this course.

M-556 Advanced Studies Computer Science with Java

Year 1.5 credits

This course introduces students to the fundamentals of programming and problem solving using the JAVA language. The course involves the design and implementation of computer programs to solve problems. Students will gain an understanding of the core aspects of computer science, which can be used to create solutions that are understandable, adaptable and when appropriate, reusable. The course introduces students to computer programming with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), and analysis of potential solutions. Students must have some introductory background in programming to be successful in this course. As with other AS courses, additional assignments should be expected over school vacations, and a substantial summer assignment is required.

Prerequisites: Algebra II & Trigonometry (M-325 or M-326) and the equivalent of AS Computer Science Explorations (M-530) or another introductory programming course as approved by the department chair and recommendation of the department

SCIENCE COURSE DESCRIPTIONS

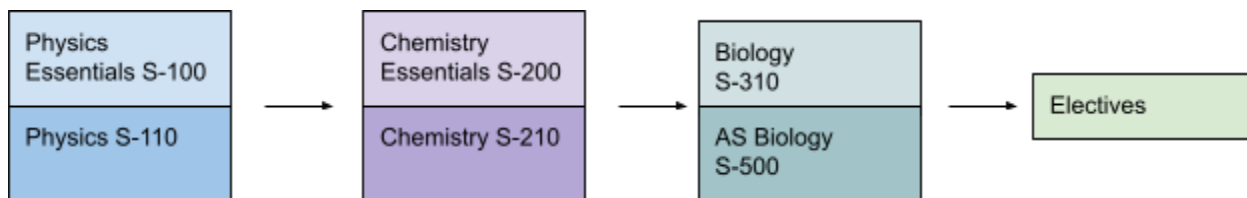
“What’s happening? Why? How can you explain it?” Emma Willard students work to answer these questions. As educated people they should understand natural and physical processes and know how to approach problems rationally and methodically. To this end, the science program engages students in discussion, group work, laboratories, digital simulations, experimental design, and research projects.

Students in science classes learn to read, understand, and interpret verbal, mathematical, and graphical information. They learn to analyze and describe scientific phenomena and problems through a series of steps including modeling, recognition and application of fundamental principles, and interpretation of results. Students develop mathematical reasoning skills within a scientific context using arithmetic, algebraic, geometric or trigonometric methods. Finally, they perform experiments, interpret the results, and assess experimental errors.

In fulfilling the science requirements, students master the groundwork for college study in the life and physical sciences.

WHICH SCIENCE COURSE SHOULD I TAKE NEXT?

This is a general pathway to show the progression of science courses. Many students come to Emma with unique science backgrounds and may take a path different from this one. Additional information about each course can be found in the course descriptions below.



If your current course is Physics or Physics Essentials, consider taking:

Chemistry Essentials S-200
Chemistry S-210

If your current course is Chemistry or Chemistry Essentials, consider taking:

Biology S-300
AS Biology S-500
AS Chemistry S-510 (note: you must take a biology course to graduate)

If your current course is Biology, consider taking:

AS Biology
AS Chemistry
AS Physics
Electives

GRADUATION REQUIREMENTS:

- For entering 9th graders: three credits of laboratory science, including one year of physics, chemistry, and biology
- For entering 10th, 11th, or 12th graders: two credits of laboratory science during their high school career, including one year of physical science and one year of natural science
- Physical science courses for 10s, 11s, 12s are: Chemistry, Chemistry Essentials, AS Chemistry, AS Physics, Physics II
- Natural science courses for 10s, 11s, 12s are: Biology, AS Biology

S-100 Physics Essentials

Year 1 credit

What is the nature of matter? How does one object, whether an atom or planet, affect another? And what causes and controls motion? These three questions lay at the heart of all of science and so naturally form the basis of this foundational course. After first establishing the nature of matter and foundational lab techniques, we examine how force and energy govern the interaction of objects. An extensive lab program allows each student to see and interpret patterns of behavior in the natural world. As we take measurements and draw conclusions, students explore various avenues for problem solving in order to refine their ability to think critically. Assignments and assessments include problem sets, laboratory reports, quizzes and

tests. Physics Essentials and Physics explore the same concepts, so students who complete either course are prepared to take advanced physics courses in later years.

Restricted to: 9 (10, by department chair recommendation)

S-110 Physics

Year 1 credit

Students in Physics follow the same sequence of topics as studied in Physics Essentials, devoting further time to lab investigation and exploring the concepts in greater mathematical depth. The best candidates for this class are students who arrive at Emma with a strong math background and a particular interest in science. Physics Essentials and Physics explore the same concepts, so students who complete either course are prepared to take advanced physics courses in later years.

Prerequisites: Geometry (M-225), which may be taken concurrently given recommendation of the department

Restricted to: 9 (10, by department chair recommendation)

S-200 Chemistry Essentials

Year 1 credit

This is an introductory course in general chemistry designed to move through topics at the students' pace. Students study basic and advanced concepts including atomic and molecular structure, periodic relationships, chemical formulas, reactions, molar quantities, properties and states of matter, bonding, and solutions. The ability to solve and discuss problems, both individually and in groups, is emphasized. Evaluations include tests, quizzes, lab write-ups, and projects. This class provides an active learning environment and hands-on experimentation to supplement learning. This class will involve both quantitative and qualitative reasoning, with an emphasis on visualizing the behavior of atoms and molecules and how this behavior gives rise to our macroscopic environment.

Prerequisite: Algebra I (M-125) and Physics (S-100 or S-110)

Restricted to: 10/11/12

S-210 Chemistry

Year 1 credit

This is an introductory course in general chemistry designed for students who have a particular interest in science and are comfortable applying algebra skills. Students study basic and advanced concepts including atomic and molecular structure, periodic relationships, chemical formulas, reactions, molar quantities, properties and states of matter, bonding, thermochemistry, and solutions. The ability to solve and discuss problems, both individually and in groups, is emphasized. Evaluations include projects, laboratories, tests, and quizzes. This class provides an active learning environment and hands-on experimentation to supplement learning. Compared to Chemistry Essentials (S-200), this class will involve a greater depth and more emphasis on analytical reasoning and extensive quantitative problem-solving.

Prerequisite: Algebra I (M-125) and Physics (S-100 or S-110)

Restricted to: 10/11/12

S-310 Biology

Year 1 credit

This course explores the interdependence and diversity of the biological world. Common themes such as levels of organization and structure and function are examined as students develop a conceptual understanding of anatomy and physiology, genetics, evolution, and ecology. Students assimilate theory and application through class discussions, hands-on projects, and laboratory activities. Assessments include chapter tests and quizzes, lab reports, projects, and presentations. Students should be prepared to spend time outside of class preparing for discussions by reading various texts, completing virtual simulations, and watching videos. This course draws upon the interdisciplinary ideas developed in the study of physics and chemistry to explain biological themes.

Prerequisite: Physics (S-100 or S-110) and Chemistry (S-200 or S-210)

Restricted to: 11/12

S-403 Foundations in Organic Chemistry

Spring 0.5 credit

Foundations in Organic Chemistry is a course designed to be taken after the successful completion of a full-year introductory Chemistry course. Students should come into this course with an understanding of the periodic table, chemical reactions, and bonding. This course builds on these concepts and includes topics drawn from organic chemistry with an emphasis on drawing and interpreting organic structures, identifying functional groups, and discovering how the structure determines the function of an organic molecule. Students should have a solid foundation in laboratory techniques, including performing reactions and representing data using tables and/or graphs, as these skills will be applied to simple organic reactions and purification methods.

Prerequisites: Chemistry (S-200 or S-210)

Restricted to: 11/12

S-405 Genetics

Spring 0.5 credit

This course builds on the student's existing knowledge of the transmission and function of hereditary material. Principles of genetics learned in Biology and/or AS Biology will be explored in greater depth, such as the expansion of population genetics to include mutation, selection, and inbreeding. The course briefly reviews the basics of genetics before moving on to the inheritance of complex traits and chromosomal abnormalities. The major focus of the course is understanding the relationship between affected proteins and the development of a disease phenotype. Students will develop an understanding of genetic engineering and individualized medicine and will leave the course with the ability to intelligently discuss the benefits and risks of manipulating the genome in humans. This course relies on traditional note-taking and does not involve the laboratory in any aspect. Students will be assessed in traditional forms such as in-classroom tests, quizzes, and essays. The ability to discuss and reflect on ethical considerations to genetics work is an important aspect of the course. The semester will end with a culminating paper-project that ties together upper level scientific research and

empathetic understanding of the impact of human disease on affected families. Students may, but are not required to, continue on to S-406 Genetics Lab.

Prerequisite: Biology (S-310) or AS Biology (S-500)

Restricted to: 10/11/12

S-406 Genetics Lab

Fall 0.5 credit

This course is designed to prepare a student for performing primary research in the biological sciences while learning principles of experimental genetics in a concrete, tangible way. Laboratory investigations will supplement class discussion and the student will learn microbiological techniques, which are currently used in primary genetics research laboratories, including polymerase chain reaction and the use and analysis of DNA gels. Students will be assessed by the quality of their laboratory submissions and content-related quizzes. Note: It is not necessary to complete Genetics S-405 in order to enroll in S-406 Genetics Lab.

Prerequisite: Biology (S-310) or AS Biology (S-500)

Restricted to: 10/11/12

S-407 Marine Biology

Fall 0.5 credit

Although the ocean covers about 71% of Earth's surface, much of it has yet to be explored. Marine Biology is a broad topic that studies oceanography, ocean life, and interactions of organisms with the environment as scientists continually learn more about this under-explored realm. This course first examines the key geological features that define the ocean, ocean chemistry, and physical oceanography. Then we will explore the different types of life found in ocean environments ranging from single celled organisms to marine mammals, and finally investigate their relationships with one another as well as abiotic factors in marine ecology. Though less frequent, we will use labs including plankton identification and ocean acidification investigations to supplement our course curriculum. This course does not fulfill the biology graduation requirement.

Restricted to: 11/12

S-410 Neuroscience

Year 1 credit

What does it mean to be "split-brained?" Is Sign Language truly a "language?" What happens in your brain when a memory is made? Through an in-depth examination of the brain from both a biological and a psychological perspective, students continue to develop their conceptual and analytical thinking skills. Areas of study include brain anatomy and development, language, memory, and nervous system disorders such as autism, schizophrenia, Parkinson's Disease and Alzheimer's Disease. Coursework includes an assortment of scientific readings including news articles and non-fiction books, complemented by videos and in-class discussions. The course also includes a daily mindfulness practice. Evaluation is based on engagement in class, tests, presentations, papers, and projects.

Prerequisite: Biology (S-310) or concurrently enrolled in Biology

Restricted to: 11/12

[Return to top](#)

S-430 Astrobiology

Fall 0.5 credit

Have you ever wondered if we are alone in the universe? Astrobiology is the study of life in the universe and the search for life beyond Earth. In this course, we will study planetary and stellar processes, as well as how life evolved on Earth. We will attempt to answer the questions, "How does life originate, how does life evolve, and what might life be like on another planet?" We will focus on the current research being done and learn how astrobiologists are able to judge which far away planets are likely to support life. Finally, we look at how to search for intelligent life beyond Earth and examine possible methods of communicating with distant life forms. This course does not fulfill the biology graduation requirement.

Restricted to: 10/11/12

S-459 Anatomy & Kinesiology

Spring 0.5 credit

How does exercise change the body? How do muscles get bigger? Why does training make you faster? In this course, we will learn about the human body's structure and function, often through an exercise lens. We will study the cardiovascular system and VO₂max, the endocrine system and performance enhancing substances, the skeletal system, muscular system, and nutrition. Classes will consist of experiments, readings, discussion, quizzes, projects, and student presentations.

Restricted to: 10/11/12

S-470 Environmental Science & Policy

Year 1 credit

At its core, environmental science is an interdisciplinary field that draws on scientific concepts and applies them to social and environmental issues. The fall semester adopts a global theme and covers the following topics: environmental systems, biodiversity, renewable and nonrenewable energy, and climate change and disruption. The spring semester adopts a human impact theme and covers the following topics: land use and conservation, air pollution, water resources and pollution, waste generation and disposal, and politics and environmental ethics. This course will emphasize the intersection of science, society, and sustainability. As students explore complicated environmental issues, they will be encouraged to draw their own conclusions as to how to best solve these complex problems. Students will investigate course content through in-class labs, field work, case studies, class discussion, and debate. This course does not fulfill the natural science graduation requirement.

Prerequisites: Chemistry (S-200 or S-210)

Restricted to: 11/12

S-500 Advanced Studies Biology

Year 1.5 credits

This is a college-level course that examines the principles of ecology, cellular life, inheritance, evolution, diversity, and organismal structure and function. Laboratory explorations in each of these topics provide the student with the opportunity to ask questions, collect and analyze

data, draw conclusions, and assess sources of error. Students will apply what they're learning to real world situations, requiring students to think outside the box. Critical thinking, problem solving, and experimental analysis are all central to the course. While this course aligns with parts of the Advanced Placement™ curriculum, it does not prepare students fully for the AP exam.

Prerequisites: Chemistry (S-200 or S-210); permission of the department
Restricted to: 11/12

S-510 Advanced Studies Chemistry

Year 1.5 credits

Advanced Studies Chemistry is a second course in a sequence of high school chemistry courses that provides students with a college-level foundation to support future studies in the subject. Major credits in the course include gasses, chemical reactions, stoichiometry, atomic structure and bonding, kinetics, equilibrium, and thermochemistry. Students are expected to come into this course with a strong understanding of the periodic table, chemical reaction basics (i.e. writing and balancing chemical equations), stoichiometry, behavior of gasses, solutions, bonding and molecular geometry (i.e. Lewis structures). Concepts in this course are supplemented with a rigorous lab curriculum. Students should have a solid foundation in laboratory techniques, including but not limited to, performing chemical reactions, isolating pure substances, and representing data using tables and/or graphs. As mathematical problem-solving skills are a central component of this course, students must have a strong mastery of algebra with respect to manipulating variables, using dimensional analysis, and working with exponents and logarithms. While this course aligns with parts of the Advanced Placement™ curriculum, it does not prepare students fully for the AP exam.

Prerequisites: Chemistry (S-200 or S-210, S-210 preferred); Algebra II & Trigonometry (M-325 or M-326); and permission of the department
Restricted to: 11/12

S-523 Advanced Studies Physics I

Year 1.5 credits

Advanced Studies Physics 1 provides students with the skills and insights needed to explain the natural world. Students are introduced to the major topics they would meet in a rigorous introductory college course: 1D and 2D kinematics, 1D and 2D dynamics, uniform circular motion, work and energy, momentum, rotational motion, simple harmonic motion and waves. The course also includes a hands-on laboratory component comparable to introductory college-level physics laboratories.

Prerequisites: Algebra II and Trigonometry (M-325 or M-326) and permission of the department
Restricted to: 10/11/12

S-526 Advanced Studies Entomology

Spring 0.75 credit

Insects comprise nearly 80% of animal life and, with nearly 10 quintillion individuals on Earth, play an incredible role in shaping ecosystems and the human experience. Entomology is the study of insects. In this course we will focus on identifying and classifying major insect groups

while maintaining a focus on how the anatomy, physiology and behavior of these animals determines how they interact with humans and the environment. Major topics covered include (but are not limited to) pollination, food sustainability, social behavior, and development. This course does involve interaction with living insect specimens. This course does not fulfill the biology graduation requirement.

Prerequisite: Physics (S-100 or S-110)

Restricted to: 10/11/12