

Buffalo Seminary



2024-2025 Course Catalog

Introduction

As an independent school, SEM provides a comprehensive curriculum that emphasizes the humanities, arts, digital literacy, and opportunities for personal growth and leadership development.

With a strong focus on college preparation, the curriculum anticipates students' academic goals beyond high school and includes both foundational and advanced courses in the humanities, the sciences, and physical education.

This course catalog represents the courses offered in the 2024-2025 school year.

The catalog is arranged by subject area and includes the title of the course, the grade level(s) the course is offered, a description of the course.

Prerequisite courses are noted as such. Within each subject area, courses are arranged by grade level. Courses are listed alphabetically within each grade level.

English Department Course Offerings

English I: Community and Self

(9)

This year-long course introduces students to the concepts, skills, and vocabulary that they will build upon throughout the rest of their high school careers. It gives students both a technical and intellectual foundation in the study of English literature, developing grammar and usage skills as well as the ability to analyze and critique a wide variety of literary texts. Students will develop their reading comprehension, literary analysis, and essay-writing skills in a discussion-centered classroom. Thematically, readings explore the literary representation of self and community. The course begins with an introduction to linguistics, then turns to studying short stories, essays, and poetry. Students will be introduced to writing the SEM Critical Analysis essay following Toulmin's method of argumentation. The year ends with an intensive reading of *Romeo and Juliet* and completing an additional essay about the text.

English II: American Literary Expressions

(10)

American Literature is a year-long course that uses American literary fiction and nonfiction to further develop the reading and writing skills necessary for post-secondary success. In trimester one, students learn the basics of literary analysis, reading beyond the surface to analyze the ways texts uphold or challenge ideologies. In trimester two, students become more critical consumers of information and strengthen their persuasive writing by learning about logic, rhetoric, and cognitive bias. Finally, in trimester three, students study personal essay writing, particularly the ways in which the creative writing strategies used in fiction will make them strong essay writers in any genre.

English III: Exploring the Literary World

(11)

In this year-long course, students examine principal authors and genres from across the globe. And every year includes a different organizational theme. For the 2024-25 school year, our theme is "borders." Most of our texts are contemporary (1960s-present) and range from novels to poems, films to graphic novels. We will discuss formal/stylistic attributes as we seek to understand how societies, cultures, histories, and languages shape stories we tell about ourselves. Designed to prepare students for college composition as well, this course requires drafting and revision of written pieces. Furthermore, since students engage with digital video as a primary source of daily information, students will compose several digital videos that promote media literacy, reinforce composition practices, and offer different avenues for understanding, interpreting, and analyzing print and visual texts. Original research rounds out the year, as students investigate critical discussions around a text; compose a proposal that includes an abstract, annotated bibliography, and an argumentative thesis; craft rough and final draft; and provide a reflective heuristic about the writing process.

AP English Literature

(11)

Prerequisite: Teacher recommendation; department approval

The AP English Literature and Composition course is designed and taught thematically with an emphasis on core readings along with modern and contemporary selections that illuminate and expand upon a variety of themes. AP English Literature and Composition closely follows the requirements described in the AP English Literature and Composition Course and Exam Description (CED), including the fundamentals of literary analysis and introductory college composition. Each week students discuss and engage in a variety of writing activities focusing on argumentation, interpretation, analysis, rhetorical strategies, exposition, structure, and style. Students read and study a variety of novels, plays, poems, and short stories from the 16th century to the present. The course focuses on the experience of literature, the interpretation of literature, the evaluation of literature, and writing to develop stylistic maturity and sophistication. Students practice their writing via numerous timed essays, which are revised several times, as well as longer essays that require outside research and MLA formatting. Students also practice oral communication skills, through regular classroom discussions and acting as discussion facilitators.

English IV: Autobiography

(12)

This course asks students to consider what it means to write their own experience. How do we understand the narratives of our lives? How do we tell our own stories in a way that satisfies both the truth and our readers' narrative expectations? Students will read selections from memoirists and autobiographers in addition to nonfiction texts about how to write about their own lives and will, over the course of the trimester, produce a single longform autobiographical essay.

English IV: Creative Nonfiction

(12)

This course is designed to encourage you to think about ways of communicating true stories using innovative, engaging techniques across a variety of media. We will read a variety of genres and forms, and you will have the opportunity to dig deeper into a style that appeals to you. Since this is a senior English course, this class will also focus on reading, writing, speaking, and listening skills that are necessary for success in college and beyond. You will be asked to analyze and critique works by published creators as well as your peers, and to create your own nonfiction texts, in order to understand how methods of storytelling can affect the impact of the story itself.

English IV: Existential Literature

(12)

It is a quintessentially human pursuit to ask, "What is the meaning of life?" In this reading-intensive and discussion-based course, students will explore the ways in which authors have grappled with this question, specifically authors who have come to the conclusion that there may not be an intended purpose to our existence. While fiction will be our primary focus, the class will also read non-fiction works by existentialist thinkers. Students will be expected to write frequent reflections and one long-form essay.

English IV: Femininity in Literature (12)

The word “femininity,” like the word “woman,” is what theorists might call a floating signifier--it is so loaded with meaning, it means so many (contradictory) things in so many (confusing) ways, that it almost ceases to have any fixed meaning at all. For example, women are expected to be both quiet and demure and garrulous and gossipy; a woman should be her husband’s domestic helpmeet and a modern #girlboss. This course will interrogate the pleasures and perils of femininity through theory, personal narrative, and fiction. Sample texts include Alice Walker’s “Everyday Use” and excerpts from John Berger’s *Ways of Seeing* and Laurie Penny’s *Unspeakable Things: Sex, Lies, and Revolution*.

English IV: Ghosts in Literature (12)

The prevalence of ghost stories in cultures and civilizations throughout recorded history indicates that there is something uniquely human about the supposition of a spirit world. This reading-intensive and discussion-based course is driven by the thesis that ghost stories are almost always about the living, revealing anxieties about identity, loss, memory, and mortality. Students will additionally explore the historical and sociological factors that influenced the post-industrial revolution ghost story.

English IV: Harlem Renaissance Literature (12)

In the early twentieth century, a small neighborhood in the northern section of Manhattan, New York became a world-famous center for Black intellectuals and artists. In this course, we will read fiction, poetry, essays, and plays — all written by African American writers — from this fascinating and transformative period in American history.

English IV: Poetry (12)

Modern & Contemporary Poetry is founded in the belief that poetry is an irreplaceable human art whose power and pleasure can be savored by everyone, and that we are all poets. In this course we will explore and consider a diverse selection of writing from the modern period (late 1800s-1950s) to that from the most contemporary poets. Together, in our own writing, we will strive to progress in communicating our ideas in concise language, using some of the techniques of the modern and contemporary eras.

English IV: Science Fiction & Society (12)

Science fiction is a literary genre that allows readers to imagine the future—to imagine progress. This course will examine the depiction of progress in (and through) science fiction, covering several short stories and novels in the genre. At the end of the trimester, students will use what they’ve learned to write a science fiction short story inspired by exemplary science writing. Sample texts include *Dawn* by Octavia Butler, “Mono No Aware” by Ken Liu, and a selection of Ursula Le Guin short stories. Our reading (or watching) will be shaped in part by student interest.

English IV: Short Story**(12)**

This course will focus on the craft of storytelling. Our guiding questions will be how a writer composes a story and why stories are told and listened to. Throughout the trimester, as we read and discuss a number of key short stories, we will be focusing primarily on the formal elements of narrative such as plot, characterization, setting, and pacing. In a sense, we will be taking apart these narrative machines to see how they work. Each of the stories we read will be accompanied by at least one short writing assignment intended both to stimulate the imagination and to practice certain structural elements of fiction writing. Along with these weekly small writing assignments, we will each be working on one major short story. All of this writing will be shared with the rest of the class in workshop and peer review formats. By the end of the trimester, we will all become better storytellers and have enriched our appreciation for the vital role that narrative serves in our lives.

Fine Arts Department Course Offerings

Arts Eye

(9)

Arts Eye is an everyday exploration of the fine arts that is required for all freshmen. Teachers of theatre, music and art collaborate on major themes throughout the year, investigating a wide collection of what it means to study in each discipline, the use of memory in creation, playwrights as storytellers, and our own identity in this world, to name a few. Students are introduced to the creative world through visiting artists and performers, trips to galleries and theatres, and utilizing national art organizations like StoryCorps. Arts Eye celebrates each student's artistic expression and creates citizens of our world who will seek out art in all their future endeavors either as an artist, advocate, or patron.

Absurdist Drama

(10-12)

This course covers theatre performance and various forms of theatrical entertainment through the eyes of these playwrights. The point of this class is to identify different styles and their origins by reading plays and seeing performances. Through these phases of entertainment we will discover different performance pieces, theatres, and personalities. We will not only cover the playwright but also the historical and psychological aspects of the plays as well. Course Objective: To provide students with an overview of theatre (in a variety of forms) and to help them understand its importance to understanding culture, both past and present. We study playwrights who write off the beaten path, challenge us to see the world differently and are usually dealing with existentialism, alienation and the avant garde. Playwrights who have taken us on a ride include: Sarte, Pirandello, Beckett, Brecht, Alfred Jarry, Edward Albee, Eugene O'Neill and Elmer Rice – to only name a few.

Art & Social Activism

(10-12)

This course shows students how artists have used their creative expression to build public awareness about social and humanitarian struggles all over the world. Students will observe different forms of art, such as performance art, street art, documentary photography, and films and installations. By looking at artists' work and discussing its impact, students will gain an understanding of how the arts, and even one single artist, can make a difference in the world we live in.

Art of Puppetry

(10-12)

The Art of Puppetry lies in the process of animating inanimate performing objects to tell a story. In essence, puppetry is giving life to that which does not have one until a human makes it possible. Much like acting, puppetry actors will storytell, present and perform but do this through objects. Actors will learn how to create puppets, write short scripts, create a show and perform it. In addition, they will learn about the history of puppetry, the various forms and styles of puppetry and key puppeteers in the field.

Basic Painting (10-12)

This introductory course allows students to explore the basic tenets of painting. Students learn about design and composition, as well as how a painting evolves from the first brush stroke to completion. Each project begins with gathering resource materials and thumbnail sketches, which encourage the exploration of a variety of ways to solve a problem. Time is spent observing masterworks in order to gain a better understanding of assignments.

Composing & Songwriting (10-12)

Students will learn the basics of music notation, setting words to music, and make music independent of words. Students will have the chance to perform their music for their classmates.

Dead Playwrights (10-12)

This course covers theatre performance and various forms of theatrical entertainment through the eyes of these playwrights. The point of this class is to identify different styles and their origins by reading plays and seeing performances. Through these phases of entertainment we will discover different performance pieces, theatres, and personalities. We will not only cover the playwright but also the historical and psychological aspects of the plays as well. Course Objective: To provide students with an overview of theatre (in a variety of forms) and to help them understand its importance to understanding culture, both past and present. We study playwrights who no longer exist on this earth, but whose work is still vibrant today. In the past this has included – Tennessee Williams, Arthur Miller, Lillian Hellman, Lorraine Hansberry, Sophocles, Henrik Ibsen, George Bernard Shaw and Peter Shaffer – to only name a few.

Digital Arts & Illustration (10-12)

Students learn how to paint and draw using digital tools and several types of 2D applications in the Mac lab. Digital Art and Illustration and Mixed-Media Mash-Up are scheduled at the same time in order to rotate students enrolled in both courses to allow for some collaborative work. This way both classes have the opportunity to incorporate both digital and hands-on skills and to interact with each other. Each class has its own separate projects, and credit is given for the class for which the student is registered.

Elements of Music (10-12)

This course looks at the building blocks of music (melody, harmony, rhythm, etc.), the basics of music notation, and a brief outline of music history. A great gateway into understanding the art and science of music.

Foundations in Abstraction (10-12)

This course covers the roots of objective and non-objective abstraction from cave painting to Contemporary Art. Beneath the broad heading of “Abstraction” we will study the psychology,

history, and ideas that led artists to move beyond representational artwork. We will examine how abstract artworks impact the human brain and how abstract painters sought to reduce their artworks to simple lines and colors in order to examine the building blocks of visual experience. Much time will be spent at the Albright Knox Gallery engaging with art in person. In addition to six visits to the Albright Knox we will visit The Burchfield Penney, Hallwalls Contemporary Art and CEPA gallery to see exhibits related to the course content. Students will be asked to make connections between historic and contemporary works and will keep visual journals reflecting on the artworks we discuss in class.

Foundations in Representation

(10-12)

This course covers the history of mimicry and representation in art from the Renaissance to Pop Art and beyond. Beneath the broad heading of “Representation” we will examine the techniques, concepts and social movements that have driven artists to represent the world around them in different ways. From Da Vinci’s scientific approach to Matisse’s emotive use of color, we will examine techniques artists developed to make convincingly realistic works and the reasons many artist’s abandoned these rules. We will see how artists like Gustave Courbet and Jacob Lawrence sought to represent diverse populations in a medium typically reserved for the wealthy. We will discuss the ethics of appropriation and mimicry in Pop Art. Students will be asked to make connections between historic and contemporary works by artists like Kara Walker. Much time will be spent at the Albright Knox and other area galleries engaging with art in person. Students will keep visual journals reflecting on the themes and questions brought up in class.

Graphic & Print Design

(10-12)

This course teaches students about communication, traditional typography, advertising, and print design. A brief history of print design is covered as well as how women are portrayed in advertising. Using industry standard design and layout software, students work on projects ranging from business logos/identities and public service announcements to simple design and layout of multi-page documents.

Illustration

(10-12)

This class is an introduction to illustration techniques, focusing on drawing strategies, concepts, storytelling, and character development exercises while experimenting with a multitude of media including graphite, ink, colored pencil, and watercolor. Students will be encouraged to explore and discover their personal style and find their artistic voice through a series of prompts and thematic projects.

Introduction to Acting

(10-12)

This course introduces students to basic acting skills, including improvisation, script and character analysis, characterization and to develop concentration in public performance.

Introduction to Acting Shakespeare (10-12)

This course introduces students to the keys of “unlocking” Shakespeare’s language through performance. Tools such as language, sound, meaning, and rhythm will help students to better understand, interpret and perform Shakespeare. We will use acting skills, including improvisation, script and character analysis, and characterization. This class will also help to develop concentration in public performance.

Introduction to Drawing (10-12)

This class will introduce students to the basic principles of drawing. Students will learn to draw from observation using pencil, charcoal, and ink. Time will be spent on perspective, proportion and shading. We will start with the basics and then move towards conceptually oriented projects at the end of the trimester.

Introduction to Photography (10-12)

This class is a prerequisite for all other photography classes. Students learn proper composition of photos as they begin shooting digitally and working in Photoshop. Basic camera operation, understanding film and developing negatives and prints is covered before students shoot their first roll of film, and then learn basic darkroom skills.

Introduction to Ukulele (10-12)

Introduction to Ukulele is an introductory class for learning the basics of playing the ukulele and a history of the instrument and famous players. Students will learn how to play chords, songs, and an introduction to picking.

Living Playwrights (10-12)

This course covers theatre performance and various forms of theatrical entertainment through the eyes of these playwrights. The point of this class is to identify different styles and their origins by reading plays and seeing performances. Through these phases of entertainment we will discover different performance pieces, theatres, and personalities. We will not only cover the playwright but also the historical and psychological aspects of the plays as well. Course Objective: To provide students with an overview of theatre (in a variety of forms) and to help them understand its importance to understanding culture, both past and present. We study playwrights who are currently writing right now! In the past we have enjoyed the works of Paula Vogel (just opened *Indecent* on Broadway), Suzan-Lori Parks (who we saw at Just Buffalo’s *Babel* & performed her work at SEM), David Henry Hwang (also at *Babel*), Danai Gurira (her play, *Eclipsed* was just on Broadway) and Quiara Alegria Hudes.

Mixed Media Mash-up (10-12)

This class is all about learning how to choose what to make when faced with unlimited possibility. Instead of focusing on a single artistic medium, you will be introduced to many and

asked to choose which one works best for your project. The class will run as a “choice based studio” which means that you will have the opportunity to delve deeper into projects that interest you personally. During the first half of the trimester we will expand your medium toolbox by learning new skills in collage, cardboard sculpture, papercut, bookmaking, drawing and painting. We will focus as much on process as on the final product. You will share and reflect on your creative process on a portfolio webpage and in class critiques. During the second half of the trimester we will examine some themes in contemporary art and look at contemporary artworks for inspiration. You will have the chance to choose a theme (or themes) and apply what you learned during medium exploration to mixed media projects.

Music Theory (10-12)

This course explores the fundamentals of what makes music tick and explores what we hear and how we hear it.

Photography & Mixed Media (10-12)

In this advanced photography class, students use their digital photography to create art by: manipulating work in Photoshop, printing on various types of mediums, using scanners, collaging, assembling 3-dimensional pieces and enhancing their work with other art materials.

Theatrical Production (10-12)

This course provides students with a hands-on experience incorporating all aspects of theatre production. By creating publicity, covering box office and budgeting, building props and costumes, and focusing lights, students have the opportunity to draw on skills learned in math, English, history, computer, and design while developing new skills in sewing and construction. This class will be working on producing Buffalo Seminary’s fall play.

Women in Music (10-12)

Women in Music is a seminar/discussion based course that explores the role of women in music from around the world (both western and non-western). We will examine the role that women have played as composers, performers, and touch on the representation of women in music and how it reflects broader cultural contexts, specifically in relation to gender issues. Key music historical figures will be researched, listened to, and discussed. Included in the class will be music listenings, lectures, discussion, and field trips to musical performances. Music theory and instrument playing is not required to be successful in this class.

Advanced Acting Shakespeare (11-12)

Prerequisite: Successful completion of Introduction to Acting Shakespeare

This course builds upon the skills learned in Intro to Acting Shakespeare. Students actively “unlock” Shakespeare’s language through performance, using more scene work, play analysis and viewing of performances either live or in the classroom.

Advanced Drawing**(11-12)**

Prerequisite: Successful completion of Introduction to Drawing

Students will expand on techniques learned in Intro to Drawing and focus on exploring thematic ideas through a series of projects. Students' drawing skills will evolve through the use of media such as charcoal, pastel, and colored pencil, while studying subjects including still-life, landscape, and portraiture.

Playin' with the Playwright**(11-12)**

How great would it be to spend a full trimester with one writer's work? To share, discuss, delve and greater understand a playwright's legacy – to study their fingerprint on theatre history – and to discover what political, social, economic and major events contributed to their work. Feature playwrights include: August Wilson, Suzan-Lori Parks, Samuel Beckett & Sarah Ruhl.

Foreign Language Department Course Offerings

Introduction to French

(All grades)

This course is designed for students who have either never taken French, or whose entrance exam results did not qualify them for the intermediate level. This three-trimester-long course provides students with basic grammatical structures such as the present tense, verbs for expressing ‘to be,’ adjective agreement, object pronouns, negation and the past tense. The class is also designed to introduce students to the correct spelling and pronunciation of the target language as well as to provide a wide array of basic vocabulary terms related to greetings, school, family, hobbies, vacation, shopping, food and festivities. Although this is an entry-level class, students are exposed to authentic written and recorded materials throughout the year. All activities, both in and out of class, are aimed at strengthening comprehension and production in the four areas of speaking, listening, writing and reading. The class is 90% conducted in the chosen language, and students are expected to interact with one another and their instructor in the target language as well.

Introduction to Spanish

(All grades)

This course is designed for students who have either never taken Spanish, or whose entrance exam results did not qualify them for the intermediate level. This three-trimester-long course provides students with basic grammatical structures such as the present tense, verbs for expressing ‘to be,’ adjective agreement, object pronouns, negation and the past tense. The class is also designed to introduce students to the correct spelling and pronunciation of the target language as well as to provide a wide array of basic vocabulary terms related to greetings, school, family, hobbies, vacation, shopping, food and festivities. Although this is an entry-level class, students are exposed to authentic written and recorded materials throughout the year. All activities, both in and out of class, are aimed at strengthening comprehension and production in the four areas of speaking, listening, writing and reading. The class is 90% conducted in the chosen language, and students are expected to interact with one another and their instructor in the target language as well.

Intermediate French

(All grades)

Prerequisite: Successful completion of Introduction to French

This course is offered as a continuation from Introduction to French, or for students who enter SEM with a solid background in the language. This three-trimester-long course is meant to reinforce the grammar and vocabulary topics presented in the Intro level and expand on them. By the end of the year, students will have learned all major grammatical concepts such as the past tense, mood selection, compound tenses, and additional verb forms such as the future and conditional. Students will also expand their vocabulary, learning new concepts such as health, medicine, technology, the arts, work and the media. Students are exposed to authentic written and recorded materials throughout the year. All activities, both in and out of class, are aimed at

strengthening comprehension and production in the four areas of speaking, listening, writing and reading. The class is conducted in the chosen language, and students are expected to interact with one another and their instructor in the target language as well.

Intermediate Spanish

(All grades)

Prerequisite: Successful completion of Introduction to Spanish

This course is offered as a continuation from Introduction to Spanish, or for students who enter SEM with a solid background in the language. This three-trimester-long course is meant to reinforce the grammar and vocabulary topics presented in the Intro level and expand on them. By the end of the year, students will have learned all major grammatical concepts such as the past tense, mood selection, compound tenses, and additional verb forms such as the future and conditional. Students will also expand their vocabulary, learning new concepts such as health, medicine, technology, the arts, work and the media. Students are exposed to authentic written and recorded materials throughout the year. All activities, both in and out of class, are aimed at strengthening comprehension and production in the four areas of speaking, listening, writing and reading. The class is conducted in the chosen language, and students are expected to interact with one another and their instructor in the target language as well.

Advanced French

(All grades)

Prerequisite: Successful completion of Intermediate French

This is the last of the three-trimester-long core courses and is offered for students who have successfully completed the intermediate level. At the advanced level, students review all key grammatical concepts, especially those nuances which cause the most difficulty for learners of French as a second language, and strengthen their vocabulary through exposure to authentic materials dealing with a wide number of topics such as current events, science and technology, popular culture, etc. Since this is the last core course offered before AP Language and Culture, students at the advanced level are prepared for the rigors of the AP curriculum and the type of tasks that they will be expected to complete. Students at the advanced level are provided ample opportunities to perfect their writing and speaking skills, and by the end of the year they should be able to discuss any topic fluently and cohesively in the target language.

Advanced Spanish

(All grades)

Prerequisite: Successful completion of Intermediate Spanish

This is the last of the three-trimester-long core courses and is offered for students who have successfully completed the intermediate level. At the advanced level, students review all key grammatical concepts, especially those nuances which cause the most difficulty for learners of Spanish as a second language, and strengthen their vocabulary through exposure to authentic materials dealing with a wide number of topics such as current events, science and technology, popular culture, etc. Since this is the last core course offered before AP Language and Culture, students at the advanced level are prepared for the rigors of the AP curriculum and the type of tasks that they will be expected to complete. Students at the advanced level are provided ample

opportunities to perfect their writing and speaking skills, and by the end of the year they should be able to discuss any topic fluently and cohesively in the target language.

L'Actualite–Current Events

(11-12)

Prerequisite: Successful completion of Advanced French

This course is mostly targeted to improve the students' speaking skills. Each student will be taking turns every class to find an article in a French newspaper and share it with the rest of the class, including the teacher. The student choosing the article will be leading the class conversation. Each class, all students will contribute to the conversation. Grades are strictly based upon speaking. The goal of this class is to develop critical thinking in the target language, to clearly formulate an opinion, to bring awareness of the world around us and to respectfully understand different perspectives. The teacher will be correcting students and reinforcing the language skills. All conversations and topics are chosen by students.

Cinema Latinoamericano–Latin-American Film

(11-12)

Prerequisite: Successful completion of Advanced Spanish

This trimester course is offered to those students who through different independent and commercial films want to learn about the historical development, the armed conflict, emigration, discover the importance of government and political roles in Latin America. Students will continue to enrich their vocabulary and improve their communication skills. Every class is designed with different activities before the film, during, and after to come to a full interpretation. After each film the students will defend their critiques to emerge with an expanded view of the Latin American world.

Health Department Course Offerings

Foundations: Health/Leadership for Freshmen (9)

This full year course lays the foundation for the rest of the 4-year curriculum, by building a sense of community with one another and building each girl's knowledge base and vocabulary at an introductory level. Topics include: team-building activities, time management and study skills, friendships and relationships with one another, healthy decision making, alcohol awareness, sex education (anatomy, reproductive systems, pregnancy, contraception, and STIs), media literacy, eating disorders, and public speaking.

Explorations: Health/Leadership for Sophomores (10)

In this full year course, students will explore more deeply topics introduced in the Foundations level. Topics include: sexuality, mental health, 7 Habits of Highly Effective Teenagers, mindfulness, public speaking, drug awareness.

Applications: Health/Leadership for Juniors (11)

This is the year in which students learn skills that enable them to apply their knowledge to real-life situations. Topics include: "Herstory" of Feminism, Sex-Toxic World, Self-Defense Clinic, College Counseling Workshop, First Aid & Citizen CPR, Nutrition (meal planning and cooking class); Car Maintenance.

Survival 2.0: Health/Leadership for Seniors (12)

It's time to prepare for college and the world beyond SEM's long wide hallway and this full year class is the culminating experience. Topics include College Counseling Clinic, Stress Management, Personal Finance, How to Prepare for College.

History Department Course Offerings

History I: Western New York

(9)

History I is a skills-based course that prepares students for all upper-level and AP history classes. Divided into three trimesters, the course emphasizes historical thinking skills, spatial thinking skills, and the foundations of U.S. government and politics. Students spend the first trimester analyzing primary and secondary sources, creating narrative representations of important events, and exploring the multiple forces that produce change over time. Toward the middle of the year, they begin a trimester on spatial thinking skills in which they learn the five themes of geography, become experts at reading and creating maps, and contemplate the significant role that space plays in shaping human identity. Students spend the third trimester studying the elements of political participation and examining the functions of local, state, and national governments.

An interest in Western New York underlies the three trimesters of History I. Even as they acquire skills in history, geography, and civics, students will become more familiar with Buffalo and its surrounding communities, both through the activities and assignments they complete and through the excursions they make in the city and region. By the end of the year, they will be prepared for future coursework and, just as importantly, well-equipped to become active and informed citizens.

United States History

(10)

This is a survey course that begins with the first Americans and extends through the late 20th century, although students are asked to make connections to the America of today throughout the course. Students develop a foundational understanding of American history through textbook readings, online supplemental texts, and brief lectures, but an emphasis is placed on the use of primary source documents and texts that require students to think critically about historical context, purpose, and point of view. Writing is an integral part of the course; students learn to develop an argument and analyze relevant evidence in order to communicate their own ideas about history as clearly and convincingly as possible.

AP United States History

(10)

Prerequisite: Teacher recommendation; department approval

This challenging and fast-paced course offers extremely motivated students a chance to study American History at the college level. AP US History combines broad knowledge of American history with in-depth understanding of how and why historical events unfolded. Students in this course practice the historical thinking skills necessary to succeed on the AP US History exam. At the same time, they study the sweep of American history from the pre-Columbian era to the present, and seek out the common strands that connect each period to the next. This class requires a great deal of reading, including a college-level textbook and many diverse primary sources, as well as focused, structured analytical writing and high-level discussion.

The World: Patterns of Change

(11)

The junior world history class is designed to continue building the historical thinking skills students have practiced in their previous history classes at SEM while exposing them to more challenging readings and preparing them for college-level humanities coursework. Throughout the year, as students examine global historical developments, they keep an eye on patterns and large-scale changes, as well as continuities.

This course introduces students to ancient, classical, medieval, and modern civilizations from across the globe, with an emphasis on the ways that societies interact and develop over time. Students will learn to assess and analyze the different ways in which the cultures of the world think about major issues, including political structures, social norms, technology, economics, the environment, and identity.

AP World History

(11)

Prerequisite: Teacher recommendation; department approval

SEM offers Advanced Placement World History for highly motivated and qualified juniors. The objective of this advanced, fast-paced, college-level course is to prepare students for success on the national AP World History exam. Reaching this objective includes understanding the broad themes and important events of world historical development from roughly 8000 BCE to the present; learning how to construct a historical argument based on primary and secondary sources; understanding long-term and large-scale historical change; and being able to make valid comparisons between diverse civilizations. Students analyze how particular historical developments have impacted gender roles, religious traditions, political traditions, technology, social norms, economics, and the environment. AP World History emphasizes both a clear understanding of regional developments and an understanding of how the world's diverse civilizations comprise a global history.

AP Human Geography

(11-12)

Prerequisite: Teacher recommendation; department approval

This course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications.

AP African American Studies

(12)

Prerequisite: Teacher recommendation; department approval

AP African American Studies is an exciting, interdisciplinary course that draws from a variety of fields—history, literature, the arts, geography, science, and law—to explore the vital

contributions and experiences of African Americans. In AP African American Studies, students explore key topics that extend from early African kingdoms to the ongoing challenges and achievements of the contemporary moment. Given the interdisciplinary character of African American Studies, students in the course will develop skills across multiple fields, with an emphasis on developing historical, literary, visual and data analysis skills. This course foregrounds a study of the diversity of Black communities in the United States within the broader context of Africa and the African diaspora. The course provides students with a strong foundation in facts and evidence about African American history and culture, offering an immersive survey course that is not currently available in most American high schools.

AP United States Government & Politics (12)

Prerequisite: Teacher recommendation; department approval

The objective of this class is to explore the foundation and development of the government of the United States. The course is designed to study all aspects of government, including constitutional foundations, political beliefs and behaviors, political parties, interest groups, the role of the mass media, the institutions of government, public policy, and civil rights and liberties. The course will also continue to build critical thinking and analytical skills through analysis of primary sources, reading in the text, and various classroom presentations and exercises. There will also be extensive analytical written work to be completed. Finally, the course will prepare students to take the AP exam in May.

Mathematics Department Course Offerings

Geometry

(9)

Geometry is a full year course that is an algebra-based approach to geometry. The algebra topics covered include: solving equations, factoring, operations with polynomials, operations with radicals, rational expressions, and systems of equations. These topics are taught with the understanding that this may be some students' first exposure to the topics and therefore more time is spent on these fundamentals. The geometry topics covered are graphing linear equations, angle relationships with parallel lines, right triangle trigonometry, proving triangles similar and congruent, relationships within triangles, properties of quadrilaterals, circles, area, surface area and volume.

Geometry Honors

(9)

Honors Geometry covers the same topics as in Geometry, but moves at a much faster pace and explores more challenging application problems. The algebra topics are reviewed in Honors Geometry with the expectation that students already have a basic understanding of that material from a previous Algebra course. Due to the accelerated pace of the class, more time is available at the end of the year to explore additional topics, including, but not limited to, probability and statistics, transformations, and parabolas.

Intermediate Algebra

(10)

Prerequisite: Successful completion of Geometry

This full year course continues the study of the topics started in Geometry. Students study linear systems of equations, quadratic functions, complex numbers, conic sections, matrices, polynomial functions, radical functions, rational exponents, rational functions, and logarithmic and exponential functions.

Honors Intermediate Algebra with Trigonometry

(10)

Prerequisite: A or higher in Geometry; B- or higher in Geometry Honors

Students in Honors Intermediate Algebra with Trigonometry cover the same topics as in Intermediate Algebra, but move at a much faster pace and explore more challenging application problems. Honors Intermediate Algebra with Trigonometry also includes the study of trigonometry, including the unit circle, trigonometric equations, trig identities, and trig functions.

PreCalculus

(11-12)

Precalculus is a full year course in which students study trigonometric, polynomial and rational functions, analytic trigonometry, vectors, parametrics, polar coordinates, conics, systems of equations, matrices, sequences, and probability.

Honors PreCalculus

(11-12)

Prerequisite: B- or higher in Honors Intermediate Algebra with Trigonometry

Honors Precalculus is a full year course which focuses on the study of the twelve basic functions and their graphs. Students study linear, trigonometric, rational and polynomial functions, conic sections, systems of equations, matrices, parametric equations, vectors, motion, sequences, series, statistics and the concept of limits, which is a bridge to Calculus. Honors Precalculus also focuses on the applications of each topic that is covered, which is an essential skill in Calculus. Students are encouraged to approach problems in a variety of ways: algebraically, graphically, numerically, and verbally.

Introduction to Calculus

(11-12)

Prerequisite: Successful completion of PreCalculus or Honors PreCalculus

Introduction to Calculus is a year-long, academically rigorous course that is designed to support topics studied in calculus. This course will provide opportunities for students to be involved in experiences that apply concepts of Calculus. These concepts include: functions, graphs, limits, differentiation, and applications of differentiation and integration. This course encourages geometrical, numerical, verbal, and analytic expression of concepts, results and problems, while incorporating appropriate technology, manipulatives, and graphing calculators. This course is not an AP Calculus class, however it is an introduction to Calculus and would be suited for someone who is looking to take Calculus I as a freshman in college.

AP Calculus AB

(12)

Prerequisite: B+ or higher in Honors PreCalculus; teacher recommendation, department approval

This full year course studies the four main topics of Calculus: limits, derivatives, integrals and definite integrals, as well many applications of these operations to word problems. AP Calculus AB is the equivalent of the first semester of college calculus. The course ends with an AP exam consisting of multiple choice and short answer questions.

AP Statistics

(12)

Prerequisite: B- or higher in Honors PreCalculus; A- or higher in PreCalculus; teacher recommendation, department approval

AP Statistics is a full year course that introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploring data, sampling and experimentation, probability and simulation, and statistical inference. Students use technology, investigations, problem solving, and writing as they build conceptual understanding. Students explore statistics through discussion, activities, and real-world problems. Successful completion of this course equips students with an understanding of statistics that they can apply in academic and everyday endeavors. Students are required to take the AP exam.

Science Department Course Offerings

Physics

(9)

This yearlong course provides the hands-on observations, outcome predictions, and practical applications needed for upper-level science courses. Topics such as the behavior of light, waves, and the fundamentals of motion are taught with a strong laboratory emphasis and an increasing level of quantitative analysis. The application of concepts is emphasized to enhance student understanding of the principles underlying physics.

Seminar: Systems Engineering

(9)

This required Freshman mini-course explores the connections among the elements of complex systems. Students begin by studying simple and complicated systems to learn the vocabulary of systems engineering before applying these terms to complex systems. One important learning goal is the understanding that not all problems have simple answers and some problems have no answers at all. The trimester culminates in an exploration of the ultimate complex system, Climate Change.

Biology

(10)

Biology is the study of life, including cells, genetics, organisms, and ecology. This yearlong course places demands upon time-management and study skills as well as upon intellect. Students are called upon not only to understand and appreciate biodiversity, but also to think about current events and the application of what they learn to their lives outside the classroom. Laboratory work, with an emphasis on observation and communication skills, is a vital component of this course.

Biology Honors

(10)

Prerequisite: Teacher recommendation; department approval

Honors Biology is the study of life, including cells, genetics, organisms, and ecology. Students in Biology Honors cover the same topics as in Biology, but move at a much faster pace and explore more challenging laboratory work and application problems. This yearlong course places demands upon time-management and study skills as well as upon intellect. Students are called upon not only to understand and appreciate biodiversity, but also to think about current events and the application of what they learn to their lives outside the classroom. Laboratory work, with an emphasis on observation and communication skills, is a vital component of this course.

Chemistry

(11)

Chemistry includes the study of atomic structure, chemical formulas and equations, phase changes, moles, kinetics and equilibrium, electrochemistry, and an introduction to organic chemistry and radioactivity. Mathematical calculations are a part of nearly every topic. In

addition to general content, this yearlong course emphasizes laboratory work in order to ensure that every student is confident and competent in a laboratory setting.

Chemistry Honors (11)

Prerequisite: Teacher recommendation; department approval

Honors Chemistry includes the study of atomic structure, chemical formulas and equations, phase changes, moles, kinetics and equilibrium, electrochemistry, and an introduction to organic chemistry and radioactivity. Students in Chemistry Honors cover the same topics as in Chemistry, but move at a much faster pace and explore more challenging laboratory work and application problems. Mathematical calculations are a part of nearly every topic. In addition to general content, this yearlong course emphasizes laboratory work in order to ensure that every student is confident and competent in a laboratory setting.

Astronomy: Solar Systems (11-12)

Students will explore how the universe affects Earth (lunar phases, eclipses, seasons, tides, comets and meteor showers) and how our view of the universe has changed with time. We end the trimester by discussing humans in space—our journey to the Moon and our exploration of Mars, in the hopes of going there someday. Projects for this course include planning a human mission to Mars.

Astronomy: Space Missions and Aliens (11-12)

The sky is filled with artificial satellites—some launched from Earth and maybe someday, some originating from other worlds. We learn about the history of our exploration of the solar system and about the space telescopes that fly above Earth's atmosphere, taking the most amazing pictures. Some of these pictures show us other planets like Earth, revolving around other stars. Which planets might be home to intelligent life?

Women in Science & Math Who Changed History (11-12)

Students will explore a variety of fields in science and math as we build a timeline of scientific contributions from women in this blended learning course. Next, we will examine the historical context which enabled these women to make their discoveries. Finally, we will look at current trends of women in various science and math fields, culminating in groups of students creating a plan to help increase gender parity in math and science fields. This is a project-based class; in addition to the timeline, there will be several small and two large projects with a mix of individual contributions and group efforts. As this course only meets for two short periods per cycle, students will be expected to complete work and participate in various forums outside of class.

AP Biology (12)

Prerequisite: Teacher recommendation; department approval

AP Biology is a yearlong college-level course designed to prepare students for the AP Biology exam as well as for upper-level college courses in biology. The range and depth of topics are extensive, as is the laboratory experience. The major topics covered include evolution, cellular biology, genetics, organismal biology, and ecology. This course is fast-paced, and is both reading- and writing-intensive. This course is designed to be taken by students after successful completion of Biology and Chemistry (introductory courses).

AP Chemistry (12)

Prerequisite: Teacher recommendation; department approval

AP Chemistry is a yearlong college-level course that prepares students for the AP Chemistry exam as well as for upper-level college courses in chemistry. This course covers a wide-range of topics and has an intense quantitative aspect. Students complete an extensive set of laboratory experiments. The major topics covered include atomic structure, chemical reactions, thermodynamics, and kinetics and equilibrium. This course requires students to have already taken Chemistry (introductory course).

AP Physics 1 (12)

Prerequisite: Teacher recommendation; department approval

AP Physics 1 is the equivalent of the first semester of a college algebra-based physics class. The topics included are comparable to those presented in AP Physics C (Mechanics), but without the calculus. Students will need to have already taken or be concurrently enrolled in Intermediate Algebra to take this course.

Computer Science Department Course Offerings

Seminary: Coding

(9)

This required trimester-long mini-course introduces our freshmen to basic computer programming concepts and career opportunities using MIT SCRATCH and Code.org activities.

Comp Science: App and Game Design

(10-12)

Explore the history of computers, understand their mechanics, and grasp basic programming concepts. Learn about computational thinking and apply your skills in practical projects, creating your own apps and games with App Lab and Unity Game Engine. This coursework is done on your own time through web apps and a One Note Notebook, with check-in meetings scheduled each rotation.

Comp Science: Web Site Design

(10-12)

Discover how the Internet works and tackle social issues such as privacy, digital manipulation and artificial Intelligence. Engage in hands-on learning by building your own website using HTML, CSS, and JavaScript. This coursework is done independently via web apps and a One Note Notebook, with check-in meetings scheduled each rotation.

Cyber Security

(10-12)

Learn the mechanics of web application and network security, including the exchange of information and the steps needed to shield data and systems. Use basic Python programming to implement essential encryption and decryption techniques. Assume the role of a digital forensic investigator, piecing together digital clues to understand and reconstruct events leading to a data breach. This course introduces students to career opportunities and lays the groundwork for understanding cybersecurity practices used by professionals.

Python Programming

(10-12)

This course is designed for beginners and covers the essentials of Python, one of the most popular and versatile programming languages in the world. Learn the fundamentals of Python syntax, control structures, data types, functions, and error handling through hands-on exercises. By the end of this course, you'll have the skills to write basic programs in Python and a strong base for future study in computer science or software development.

OSG Artificial Intelligence

(11-12)

Fall semester or full year, this course is offered in partnership with OSG. From virtual personal assistants like Siri and Alexa to autonomous vehicles that navigate and drive themselves, Artificial Intelligence (AI) is embedded in all kinds of technology and makes everyday objects act in human-like ways. Beginning with AI's foundation in data science, this course explores the world of AI, its key technologies, and the concerns guiding its use. Students model machine

learning algorithms using block-based and Python programming languages and design intelligent agents to solve real-world problems. Topics include natural language processing, image processing, deep neural networks, data science life cycle, computation thinking, and predictive analytics. Students leave this course having gained an understanding of how AI can help us make better decisions and build “smarter” technology.

OSG AP Computer Science A (Java)

(11-12)

This course is offered in partnership with OSG. The AP Computer Science A course introduces the key concepts of programming in Java. The analytical, critical-thinking, and problem-solving skills that students develop in this course transfer to programming in other languages as well. This course is designed with the idea that programming should be fun, engaging, and intuitive. Students learn to apply the main principles of object-oriented software design and programming using classes and objects, constructors, methods, instance and static variables, inheritance, class hierarchies, and polymorphism. Students work creatively and collaboratively with their classmates to discuss ethical and social issues relating to the use of technology and develop a solid foundation from which to launch into a wide range of computer science areas. This course prepares students for the AP Computer Science A exam.

OSG AP Computer Science Principles

(11-12)

This course investigates the “big ideas” found in our digital world. Using the Python programming language, students develop and demonstrate fundamental concepts of computer programming that can be applied across a variety of projects and languages. Students explore different means of representing information digitally and how our digital world has evolved. They create computer programs to solve authentic problems or to explore personal interests such as unique musical pieces, math calculators, and data summations. Students discuss the current state of technology and its role in our everyday lives, discerning the positive and negative influences of innovations concerning computer and network technologies to society, culture, and economics. Throughout, students develop their skills in computational thinking, logical reasoning, and describing processes through algorithms and abstraction. Finally, students demonstrate their learning by creating a portfolio for submission to the College Board and are prepared for the AP Computer Science Principles exam.