

Block 1

Math Integrated Math III

Instructor: Jeremy Thomas

Course Description: A continuation of the IMP course. We will take a deeper dive into quadratics and trigonometry, fill out our understanding of exponentials and logarithms, and learn new ways to solve systems of equations or systems under constraints. This year will also add some all new math concepts like vectors and matrices and we will see how they can be applied to more complex problems in algebra and geometry. Finally, we will take a peek into concepts which lay underneath calculus.

Integrated Mathematics 1/2

Instructor: Jeanie Iida

Course Description: Through the use of visual and symbolic math models, daily discussions, and engaging independent and collaborative work, students will explore geometric formulas, arithmetic sequences, further work with linear growth and systems of equations, algebraic modeling to solve of variety of story problems, fraction concepts with variables, radicals, probability and statistics, and an introduction to quadratics. A graphing calculator TI-84 Plus CE or equivalent will be required mid-year for this course.

Power, Politics, and Theories of Government (Section 1)

Instructor: Dylan Ruef

Course Description: This course provides the space for an exploration of the theories and systems of power and government which have existed within human society throughout history and the methods of government which are used in the world today. Students will be challenged to consider not only how things currently are, but to develop their own opinion on how power should be distributed within society and what they think the priorities and role of governments *should* be. Students will be exposed to various historical and theoretical perspectives on the proper function and methods for ordering societies to enable them to compare and contrast, draw parallels, and think critically about who holds power and who *should* hold that power in a “good” society. These include but will not be limited to the philosopher Plato’s description of a “just” city, the first kingdoms and empires to ever emerge, democracy, limited government, *The Melian Dialogue*, monarchy, and much more.

Texts:

TBD

Block 2

Math Calculus I

Instructor: Jeremy Thomas

Course Description: This year we will dive into calculus more formally, deriving its theorems and seeing how they are applied in computation, geometry, and statistics. We will study both derivative and integral calculus, and get our first look at differential equations and differential geometry. Of course, we will have lots of examples from the real world demonstrating its use, but also more formal mathematical theorems and proofs.

Integrated Mathematics 2

Instructor: Jeanie Iida

Course Description: Through the use of visual and symbolic math models, daily discussions, and engaging independent and collaborative work, students will explore permutations and combinations, extensive geometry topics, trigonometry, periodic functions and an introduction to the unit circle, exponential growth and decay, deeper understanding of function transformations, integer and fractional exponents, inverse functions and an introduction to logarithms.

Power, Politics, and Theories of Government (Section 2)

Instructor: Dylan Ruef

Course Description: This course provides the space for an exploration of the theories and systems of power and government which have existed within human society throughout history and the methods of government which are used in the world today. Students will be challenged to consider not only how things currently are, but to develop their own opinion on how power should be distributed within society and what they think the priorities and role of governments *should* be. Students will be exposed to various historical and theoretical perspectives on the proper function and methods for ordering societies to enable them to compare and contrast, draw parallels, and think critically about who holds power and who *should* hold that power in a “good” society. These include but will not be limited to the philosopher Plato’s description of a “just” city, the first kingdoms and empires to ever emerge, democracy, limited government, *The Melian Dialogue*, monarchy, and much more.

Text: TBD

Block 3

Having Your Say: Topics in Literature (Essay Class)

Instructor: Emily Dietrich

Course Description: Topics in Literature Essay class 2023-24: Having Your Say; Making a Difference

How can you participate in the conversations that matter to you and affect your present and future? After identifying topics that students in the class consider relevant and important, we’ll select works to study that have been created to bring light to realities and issues that need attention—works from the past and in the news right now. Not limited to the written word, we will also analyze other forms used to influence events such as art, music, social media, fashion, and stand-up comedy.

Writing essays that express opinions persuasively, critiques of different art forms including fashion and food, as well as journals and creative writing, we'll practice writing techniques and forms. Incorporating research skills, we'll practice restating ideas, summarizing, citing sources, and using quotations effectively. We will experiment with a variety of methods for taking notes and organizing sources. To add depth to sentences, we'll explore tricks used by excellent authors to strengthen sentence-craft.

Texts: We Are the Weather by Jonathan Safran Foer

Born a Crime by Trevor Noah

"Legend" by Bob Marley (music)

Persepolis by Marjane Satrapi (graphic novel)

"Guernica" by Pablo Picasso (painting)

. . . and works on topics selected by students

Primary Historical Sources Exploration and Analysis

Instructor: Dylan Ruef

Course Description: [This advanced history course will provide learners with the rare opportunity to read, analyze, and discuss primary sources from history where we can learn from the people who lived, built, and left behind each particular historical artifact. Pending student input primary sources to be analyzed include *Adventures In The Unknown Interior Of America* by the Spanish soldier and explorer Cabeza De Vaca, *The Gallic War* by Julius Caesar, and *The Melian Dialogue* from Thucydides' *A History of the Peloponnesian War*. This course will involve a large amount of readings which, given their age, will be difficult to comprehend and understand. Students should expect several hours of reading homework every weekend at a minimum along with smaller assignments during the week.

Text:

The Gallic Wars by Julius Caesar, translated by Carolyn Hammond

Adventures In The Unknown Interior of America by Cabeza De Vaca

Others TBD in class

High School Visioneering (*freshmen-juniors, once a month in lieu of usual 3rd block class*)

Instructors: Erika Wright & Lauren Mathews

Course Description: Once a month this all-high school class will meet to explore social emotional skills through experiential activities and discussion. The interests of the students will guide the direction of the course. In the past classes have focused on best practices for studying, navigating conflict with peers, setting personal boundaries, and the form and function of the adolescent brain. Guided by questions and curiosities, learners will apply new-found understanding and lived experiences to small and large group activities and discussions.

Meeting Dates: 10/11, 12/6, 1/17, 2/28, 4/17, 5/22

Block 4

Chemistry (*sophomore +*)

Instructor: Jeremy Thomas

Course Description: How does an animal's body turn food into motion? Where does salt go when you put it into water? Why are things the color that they are? What is fire and is it alive? Chemistry is the science that attempts to answer questions like these, questions about the physical stuff in our universe. We will develop an understanding of what things are actually made out of, theories that describe and organize matter, and the techniques used to figure that out. Learners will reproduce some classic experiments in chemistry as well as develop their own hypotheses and experiments to test them. Although our focus will be on general chemistry, we will look at chemistry from a broader perspective and use examples from industry, biology, and environmental science to better understand the scope and implications of this science.

Life Science: The Body as a Garden

Instructor: John Mannion

Course Description: Human biology is often explored in a linear fashion; for example, we might look at how stress leads to the release of the hormone cortisol. While this kind of perspective can help us understand the systems and functions of the body, we want to move beyond this view in our class to see that our bodies are complex, living ecosystems that are both individual and interconnected. The class will also be interdisciplinary in nature. We will consider historical factors that have led us to look at the body as a machine and how this machine metaphor can at times serve us. We will also glean wisdom from eastern and indigenous traditions that have long honored the complexity of the body and seen it as an ecosystem that can often heal itself.

Students will be encouraged to lean into particular areas of interest and present their findings to the rest of the class. For example, one student might consider the link between fascia and emotional states and how this link resembles the interconnectedness of a garden. Another student might look at outside factors that lead to stress and how stress affects the body over time. A group of students might investigate how sunlight affects both plants and the human body — noting differences and similarities.

Class learning will be supplemented by readings and videos, and we will also care for a few plants as a class throughout the year.

5th block (Monday/Tuesday; Wednesday Electives TBD)

The Icelandic Sagas (*Raven and High School*)

Instructor: Jeremy Thomas

Course Description: Sagas are a literary form from Scandinavia used throughout the middle ages. There are many types of saga but we will be focusing on the family sagas which tell the stories of the people and families who settled Iceland, although we will also look at a legendary saga – the tales of magic and dragons. These stories played a vital role in the development of literature in Europe, influencing authors throughout the continent all the way to the modern age (one saga has a tale of a traveler finding a ring in a cave that turned him invisible). The time in which they were written was a time of great change in Europe, and the sagas are part of the conversations about who should hold power, the role of violence, the development of the law, consent in

marriage, and many of the issues that led to Europe's transition away from feudalism and towards the systems we have today. They are also full of poetry, jokes, fights, romance, epic travels, trolls, the colonization of Canada, and more.

Text: *The Sagas of Icelanders* by Robert Kellogg

Others TBD

Creating Worlds Through Words (*Raven & High School*)

Instructor: John Mannion

Course Description: In this class, we'll move through four major categories of creative writing: screenwriting, fiction, playwriting, and graphic novels. Students will learn the basic structure for each form and read several examples of each. Students will then be able to try their hand at any form of interest and have the opportunity to share their work. They could create a short piece of work in each form or a longer piece in a single form. Throughout the class, we will consider the nature of creativity, the therapeutic effects of creative writing, and how we can use our words to empower, entertain, and ask good questions.

American Sign Language (*Raven & High School*)

Instructor: Catherine Lewis

Course Description: Learners in this hands-on class will dive into the history and practice of American Sign Language in the context of the Deaf community. In addition to growing our receptive and expressive skills by understanding and practicing the language itself, we will also explore the realities, joys, and challenges of deafness and the culture and strength of the Deaf community. Topics such as the science of hearing, various communication modalities, and controversies such as cochlear implants will also be explored. Learners will leave this class with basic conversational skills in ASL as well as a deeper understanding and appreciation for the Deaf identity.

Thursday Program Preview

Additional classes and sign up with fee details will go out later this month!

Fall Theater Lab

Instructor: Trent Latta & Kjerstine Anderson

All Ages

9:00 - 11:30 a.m.

Course Description: This workshop will explore the fundamentals of storytelling, including character development, themes, plot structure, conflict, and resolution. They will also introduce filmmaking techniques to students. To facilitate effective learning, the older students will be grouped into small teams consisting of two to three students, based on their age and subject interests. Each group will have the opportunity to write, cast, direct, and act in their own short film using smartphones or other video devices. Students will learn the basics of film editing using a basic, but effective and easy-to-learn software called Filmora by Wondershare. Trent will be available to assist the students in editing their films. Younger students will focus on learning the same storytelling elements but will not participate in the filmmaking aspect of the class. Instead, they will write and

perform their own short plays (two to three).

The students' films and plays will be showcased in December 2023!

Spring Play

Instructor: Trent Latta

Ages 8 & Up (with options for learners under 8)

9:00 - 11:30 a.m.

Course Description: The Attic's tradition of showcasing a school play, concluding with a live production continues! Throughout the rehearsal process, students will receive guidance in stage acting and, depending on interest, will receive instruction on the theater industry (auditions, agents, casting) as compared to the film industry. For those who choose to assist the production with a technical job, they will be expected to learn about a specific area of interest in technical theater and to write a paper on the subject. For example, they may choose to explore different stage lighting techniques, stage scenery techniques, or any other aspect of technical theater that fascinates them. Trent and Kjerstine will provide instruction and support to students undertaking the technical learning aspect, helping them develop their papers.

The play will be scheduled to be performed in May 2024 at the Bellevue Youth Theatre or another suitable professional or semi-professional venue. The exact performance dates will depend on the Attic's calendar and, more importantly, the availability of the chosen venue. This semester's activities will be limited to children aged nine and older, and enrolled students will be expected to participate in rehearsals. *Children 8 and younger may participate the last week of rehearsals; please contact Trent Latta if your child is interested in joining.*

Literacy & Mathematics Through Tabletop RPGs - Fall & Spring

Instructor: Nick Satnik

Merganser, Raven, & High School

9:00 - 11:30 a.m.

Course Description: Coming soon!

Thursday Program

Instructors: Various

All Ages

Course Description: Thursday Program offerings will be determined by student enrollment and interest. Jeremy Thomas is offering a Computer Science course for Raven and High School students. If you are interested in this course, please indicate that on your sign up form. Students will take a 30 minute lunch break during this session.

Computer Science - Fall & Spring

Instructor: Jeremy Thomas

11:30 a.m. - 3:30 p.m.

Course Description: A structured look at computer science in theory and practice. We will start the basics of computation: how do computers represent data or do math including a close look at how the hardware is organized and functions. Then we explore the general ideas behind computer software and hardware and see

how those ideas are implemented in different languages: specifically the industry standard languages of Python, Java, and C++. Each week will focus on an important topic like conditionals, loops, classes, etc, and then work on projects which demonstrate its use and importance. We will also study computer science theories and paradigms like object oriented, functional, or aspect oriented programming as well as development processes like code versioning and iterative design. As we enter the second semester you will get to choose how we proceed: keep going as we have been, work on an all class project, add in the robots, or work on individual projects. The class will not be as free form as an elective, we will keep it professional with the goal of designing, implementing, and debugging working software.

Fall Morning Study Session

Instructor: Jeanie Iida

Raven and older

10:00 - 11:00 a.m.

11:00 - 12:00 p.m.

Course Description: Thursday Study Session is a time of productivity and one on one support for Raven and high school students. Jeanie is available for help with Attic math classes or Community College classes. The expectation is that you come ready to work! For planning purposes you must be signed up the Wednesday prior to your Thursday time slot.

Senior Visioneering*

**No Thursday fee charged*

Instructors: Emily Dietrich

Time TBD by participants

Course Description: Senior Visioneering is a weekly class devoted to the interests, questions, and work of being a senior in high school. It also involves thinking, planning, and dreaming about what comes after Attic graduation. The fall will primarily focus on the college application process. Discussion and activity-based, exploratory topics will be determined by participants and may include, basic budgeting and finances, living with roommates, writing resumes, taking notes, managing stress, defining personal values and goals and more.