

Forman School Curriculum Guide 2021-22

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Introduction

In the Forman modular system, students will focus on in-depth learning experiences, meeting in each course five days per week, for an extended instructional block over the course of each “mod” or term. Courses in the modular schedule emphasize depth of understanding rather than mere coverage of content. This emphasis lends itself to the development of the essential skills of a discipline. It also supports the development of the reading and writing expectations that students will face in college. This instructional time is equivalent to one-third of a year-long course and students will earn one-third of a credit for each modular course. Over the course of a year, students will typically take three modular courses per discipline, equating to a full-year credit. For example, students would be

expected to take three modular courses from the English department over the course of the year to earn a full credit in English. Subjects that call for sequential, cumulative learning, such as mathematics or world languages, are taught in blocks that span consecutive terms.

Cognition & Learning courses and Thinking & Writing courses are paired in the schedule for a cohesive program of skill development.

Requirements for Graduation

Students in all grades take a minimum of 7 credits each year. Students must take an English course each year in attendance, even if repeating a grade in which English has previously been taken. Students must attend classes full time at Forman during their senior year in order to graduate and earn a Forman School diploma.

Senior Year Failures

Seniors who fail a required course for the year will not receive a Forman School diploma until that course has been made up in an approved summer school, including Winterim courses.

Course Distribution and Requirements

Forman expects all students to maintain a rigorous and balanced schedule. To earn a Forman School diploma, students must successfully meet certain credit requirements. Each year, as part of their course of study, students participate in a Winterim. During this two-week period, students take one course and focus on this subject in depth. Academic credit is provided for these courses and students choose from a wide array of offerings including travel and culture, mini-courses, health and wellness, and the arts. Students may not enroll in the same Winterim course twice during their time at Forman School.

The course credit distribution for 2021-22 in our six-term modular schedule is that one course is worth 0.33 credit; three courses = 1 credit.

Graduation Requirements:

4 credits of English

3 credits of Mathematics or through completion of Algebra II

3 credits of History, including U.S. History

3 credits of Science, including two lab sciences

1 credit of Thinking and Writing

1 credit of Cognition & Learning

1 credit of Post-Secondary Planning

2 credits of Art
2 credits of a World Language are strongly recommended
1 credit of Health and Wellness
0.5 credit Winterim, per year
15 hours of Community Service, per year

Typical Course Load For Each Year

Ninth Grade Course Expectations:

1 credit of English
1 credit of Cognition & Learning
1 credit of Mathematics
1 credit of Geography
1 credit of Integrated Science
1 credit of Thinking and Writing
1 credit of a World Language or elective
0.5 credit of Art
0.5 credit in Health, Wellness, and Leadership
0.5 credit Winterim
15 hours of Community Service

Tenth Grade Course Expectations:

1 credit of English
1 credit of Cognition & Learning
1 credit of Mathematics
1 credit of U.S. History
1 credit of Biology
1 credit of Thinking and Writing (by recommendation)
1 credit of a World Language or elective
0.5 credit of Art
0.5 credit in Health, Wellness, and Leadership
0.5 credit Winterim
15 hours of Community Service

Eleventh Grade Course Expectations:

1 credit of English
0.5 credit of Post-Secondary Planning I
1 credit of Mathematics
1 credit of History
1 credit of Science

1 credit of Thinking and Writing (by recommendation)
1 credit of World Language or elective
0.5 credit of Art
0.5 credit in Health, Wellness, and Leadership
0.5 credit Winterim
15 hours of Community Service

Twelfth Grade Course Expectations:

1 credit of English
0.5 credit of Post-Secondary Planning II
1 credit of Mathematics
1 credit of History
1 credit of Science
1 credit of Thinking and Writing (by recommendation)
1 credit of a World Language or elective
1 credit of Electives
0.5 credit Winterim
15 hours of Community Service

PG Year Course Requirements:

1 credit of English
1 credit of Thinking and Writing
0.5 credit of Post-Secondary Planning

Cambridge Assessment International Education Courses

Cambridge Assessment International Education advanced-study classes are offered in our Math Department. These classes are offered to Juniors, Seniors, and PG at the Honors level. Each class will meet daily and students will earn 2 credits.

Cambridge Assessment International Education classes develop a learner's knowledge, understanding, and skills. Classwork is designed to build a student's understanding of the concepts and ideas in each area. This is achieved through practical work, problem-solving or question/answer, and other activities. Written homework is set regularly to aid understanding.

Exams are held in May and sometimes in June. Students' psychological-educational evaluation testing must not be more than three years old (to the date of the exam in May/June) in order to qualify for exam accommodations. Cambridge Assessment International Education makes their own determination with regard to exam accommodations.

If an exam for a particular course is held in June, parents must make their own arrangements to get their student to and from School at their own expense.

Course Drops and Changes

Schedule changes may occur throughout the year with permission from the Director of Studies. All course changes must be made through the Academic Office, and parents are included in this process.

ENGLISH DEPARTMENT

UNDERCLASSMEN ENGLISH COURSES (9/10)

The American Dream (*Fiction*)

Also offered at the Honors level

The American Dream was once the driving force for many of our ancestors to make the decision of moving to the United States. In this course, we will examine if the American Dream is still alive today. Through various nonfiction poems and short stories, we will discuss how the American Dream is affected and if it has changed since it was originally created. We will also examine the American Dream through a fictional lens by reading *The Great Gatsby* by F. Scott Fitzgerald.

American Drama: *A Raisin in the Sun* and *The Raisin Cycle* (*Drama*)

Also offered at the Honors level

How does racism affect the achievement of the American Dream? The class will begin by reading *A Raisin in the Sun* by Lorraine Hansberry, which presents the systemic racism of 1950's Chicago. The class will then read two plays that continue the stories of Hansberry's characters and themes referred to collectively as *The Raisin Cycle: Clybourne Park*, by Bruce Norris, which is a spin-off of Hansberry's play that explores similar themes around racism in housing in the time period directly after the original play and during the late 2000's; and Kwame Kwei-Armh's *Beneatha's Place* follows Beneatha as she completes her education and moves to Africa. Students will write critically about all three plays throughout the course.

American Journey in Short Stories (*Fiction*)

This course will read and analyze major/popular/important short stories from American literature about characters who do not fit the majority norm of life in America. These stories deal with the multicultural experience in America, the experience of the outsider, and the experience of those who are different from the expected norm. Students will use methods of accessing texts and forms of verbal and written response to read and analyze these texts. Assessment formats may include quizzes, short writing assignments, or formal discussions.

Defining Identity (*Nonfiction & Poetry*)

Our identity makes us who we are, but are we always the ones to decide our identity? Throughout this class, various components of identity will be examined. We will discuss racial implications in society and how unconscious bias can play a role in identity. We will investigate identity by looking at examples of real people, as well as short stories, poems, and mini-films. Students will be challenged to look at code-switching and how we alter our vernacular based on who we are talking within specific settings. This course will challenge

students to question identity and how it is negotiated within our society.

Food for Thought (*Nonfiction & Fiction*)

Food is a universal component that has the ability to bring any culture or background together. In this course, we will examine how writers use the language of food to explore issues such as gender, race, socioeconomic status, and culture. Foods have various meanings and we will discuss how authors use these foods as symbolic representations. Students will read poems and short stories that use food to demonstrate specific symbolism. In this course, we will also investigate how the food industry has been changed in America. We will read selections from *The Omnivore's Dilemma* by Michael Pollan and watch various video sources examining the food industry and how this plays a role in our understanding of foods.

Legends of King Arthur from the Middle Ages to Today (*Fiction*)

This course will explore the traditional and modern legends of King Arthur and his companions. We will investigate classic texts such as *Gawain and the Green Knight* and excerpts from *Le Morte d'Arthur* and more modern interpretations of the legend such as *The Once and Future King* and *The Mists of Avalon*. The course will complete its exploration of Arthurian myth by seeing how well modern film adaptations such as Disney's *Sword in the Stone*; *Excalibur*; the musical *Camelot*; and *Monty Python and the Holy Grail* represent the traditional myth.

Folktales for the Modern World (*Fiction*)

Students will explore how folk and fairy tales can be modernized to tell the stories of the modern world. The class will read *Briar Rose* by Jane Yolen, which takes the fairy tale of "Sleeping Beauty" and applies it to a tale of Holocaust survival. Students will explore other modernized tales before trying their own skills at modernizing a classic fairy tale to tell the story of a contemporary historical event, issue, or struggle.

Modern Shakespeare (*Poetry, Public Speaking*)

Also offered at the Honors level

Shakespeare continues to impact society, even though he isn't present in our society today. This course introduces Shakespeare and his writing style. The students will examine how Shakespeare impacts our current society and his influential role in the English language. The students will learn to read the sonnets in the iambic pentameter and practice reciting the poems. The students will analyze and learn how Shakespeare's Sonnets are modern and continue to be relevant today.

Shakespeare's Twins: *The Comedy of Errors* and *Twelfth Night* (*Drama*)

Also offered at the Honors level

Shakespeare was the father of twins and many of his plays feature twins. Shakespeare used

twins for both comic and dramatic effects in his plays. This course will first read *The Comedy of Errors* to explore the comedy and confusion of mistaken identity on stage. Students will then read the *Twelfth Night* which uses disguise and the twin troupe for more dramatic effect. Student experience with the two plays will focus on understanding of the plot and structure of the plays and different techniques of performance as observed in video clips from various productions of each play.

Dramatic Readings: The Art of the Short Story (*Public Speaking*)

This course will focus on short fiction while also introducing dramatic reads through the public radio program "Selected Shorts." Students will gain exposure to a wide range of literal and dramatic voices while practicing both reading and listening comprehension. The course culminates with the practice of public speaking, as students perform their own dramatic reads while exploring how dramatic elements can be utilized to influence their own interpretation of a work.

Dramatic Readings: Monologues and Speeches (*Public Speaking*)

Also available as an Arts Credit

One method of becoming comfortable with public speaking is practicing with the words of others. This course will work with famous speeches and selections from plays to practice breaking down a text to be presented as staged readings. The goal of the class is to help students learn tools to become more competent and impactful public speakers, whether it be giving a speech at an assembly or sharing their ideas in the classroom.

New England Poets (*Poetry*)

Also offered at the Honors level

This course will survey a variety of poets from the New England region and the themes these poets present in their work. The course will not only read poets who are native to the region, but also poets that have migrated to New England, bringing new perspectives to the more traditional writing found here. The class will explore how the themes of place, nature, and history pervade the work of many New England poets. Students will both read and hear poems as they analyze their structure and meaning, writing critically about the poems they survey throughout the course.

Songs of the Soul (*Poetry*)

This class will challenge students to think more critically about lyrics, messages, and contexts for songs and to consider more seriously the ways in which music speaks to the souls of individuals and communities. We will start out by thinking about music without words before transitioning into conversations about traditional music and storytelling. During the second half of the class, we will study the role of music as an effective medium to voice social and political concerns or unrest, while also examining how music can serve as a spiritual, motivational,

and/or otherwise grounding outlet in today's society.

Importance of Memories (*Nonfiction*)

Memories are a large part of literature and the genre of memoir writing is very unique. This module allows students to learn about various components of memoirs and analyze specific memoir writings. The students will analyze short story memoirs and *The Glass Castle* by Jeannette Walls. The students will investigate all of the components that make up a perfect memoir. The students will demonstrate their cumulative learning by writing their own polished memoir focusing on a specific memory.

The Ultimate Investigation (*Nonfiction*)

Also offered at the Honors level

Finding effective sources while completing research can be a very challenging task. There are many steps to accomplish when searching for appropriate sources to use in a project. Throughout this course, the students will practice investigating sources as they complete their own choice of research. As the students locate strong sources, they will also be practicing their citation skills and completing various writing pieces to demonstrate their learning. The students will analyze and investigate multiple mediums to become stronger investigative writers.

Nature Writers (*Creative Writing*)

Also offered at the Honors level

During this course, students will review and examine how an individual's inalienable right "to life, liberty, and the pursuit of happiness" did inspire a rich legacy of nature writings from Walt Whitman, Stanley Kunitz, and Mary Oliver, each famous American authors and nature activists in their own right. In the process, students will also explore, consider, and identify select poems from each of these literary giants to recite, react to, and inspire original work featured in their final course projects, revealing an enhanced appreciation for the essential bond between humanity and nature at the water's edge.

Who do you think YOU are? (*Creative Writing*)

During this English class, students will engage in a mindful study about how personal reflection permits the valuable exploration, discovery, and appreciation for one's true self. After generating a select body of written work through guided writing prompts during our first two weeks together, class members will then focus their efforts to weave together a personal memoir that reveals select and varied aspects from their own human experience, thus far. As a final course exercise, students will choose select excerpts from their "working" memoirs to share with the rest of the class.

UPPERCLASSMEN ENGLISH COURSES (11/12/PG)

A History of Myth (*Nonfiction*)

Also offered at the Honors level

This class will explore the evolution of mythology throughout time, beginning with the Paleolithic Age and ending early civilizations in the Mediterranean. Students will discuss the ideas of comparative mythology and discuss the origins of modern Western religion. Students will practice critical thinking skills, research and collaboration skills, and writing at a college level. Sources will include *A Short History of Myth* by Karen Armstrong, as well as articles and videos that pertain to the course material.

Dystopian Literature (*Fiction*)

Also offered at the Honors level

Students will learn about the impact that social leadership has on the citizens of a community through the reading and analysis of several texts. Primarily a discussion-based class, students will have the opportunity to verbalize their thoughts and gain clarification through daily conversation, while also working on developing their critical thinking skills, practicing writing at a college level, and learning how to be an active collaborator in the classroom. Sources may include but are not limited to, *Brave New World* by Aldous Huxley, and *The Children of Men* by P.D. James.

Romantic Literature (*Nonfiction*)

Also offered at the Honors level

This course will explore the role of artists and poets in Romantic literature and philosophy, drawing from poetic as well as philosophical sources and a combination of German and British authors. The course will address various theories about the role of poets and artists in societies, the role of poetry/art in living a meaningful/ethical life, and the lingering influence of this vision of Romantic artistry on our contemporary society. The course will begin by touching on the beginnings of German Romanticism (Goethe, Schiller, and Holderlin) before moving to England for the middle of the class (Smith, Wordsworth, Wollstonecraft, M. Shelley, P. Shelley, and Keats), and then finally moving back to the end of the 19th Century in Germany (Nietzsche, Rilke, Heine, and Kafka). Emphasis will be put on short but dense poetic/philosophical readings, class discussions, and critical engagement and response to these ideas.

Magical Realism (*Fiction*)

This course will examine the Magical Realist movement, reading key texts and tracing its evolution through major South and Central American authors to contemporary inheritors of the central concepts. The major initial novel will be *100 Years of Solitude* by Gabriel Garcia

Marquez, from which we will begin a conversation about the techniques and implications of magical realism, which reflect both aesthetic explorations and political/anti-colonial sentiments. Other authors will include both South American magical realists such as Isabel Allende, Jorge Louis Borges, and María Luisa Bombal, and more contemporary authors writing in and drawing from the tradition, including Italo Calvino, Salman Rushie, and Haruki Murakami. Emphasis will be placed on making connections across cultures and examining the way in which Magical Realism both transcends and works against cultural boundaries and imperialist structures.

Toni Morrison: Fiction, Theory, and Criticism (*Fiction, Nonfiction*)

Also offered at the Honors level

This course will provide an in-depth study of Toni Morrison, one of the most important voices in contemporary literature. In this senior, seminar-style class, students will be asked to engage deeply and produce written work that deals with the complex themes of Morrison's corpus, focusing on issues such as racial justice and feminism. We will read two of Morrison's novels, *Song of Solomon* and *Beloved*, while also spending time reading other works including short fiction, magazine publications, speeches, and literary criticism. A final element of the course will be the inclusion of some of Morrison's theoretical and philosophical writings, such as her analysis of the roles whiteness and blackness have in American reading and writing from her essay "Playing in the Dark." The course will explore the intersection between fiction, theory, and criticism as we delve into the breadth and complexity of Morrison's writings.

Post-Apocalyptic Literature (*Fiction*)

This course explores the popular genre of apocalyptic literature, which generally focuses on human relationships and needs in a survival landscape. Students will be practicing and strengthening skills in critical thinking, collaboration, reading, writing, and communication through various assignments. Assessment formats are projects, essays, and formal discussions, and feedback will be given regularly via both written and verbal interactions.

Redefining America (*Nonfiction*)

Also offered at the Honors level

Did our Founding Fathers, with noble but privileged intentions, compromise the very essence of a true Democracy in the USA from the start? Through a respectful study of select documents, essays, poetry, and lyrics spanning from 1776 to today, this class will work to understand, account for, and address the systemic challenges that face our enduring Democracy. For the final course project, students will compile a portfolio with select work that they've generated from critical and creative writing assignments throughout the term. In addition, they are encouraged to incorporate apt, original photographs and/or artwork to complement their written work, revealing their personal resolve and conviction to promote an American experience truly equitable and available for all.

Wonder and Other Survival Skills (*Nonfiction*)

This class expects students to read, review, and write about many articles from *Wonder and Other Survival Skills*, a collection of essays inspired by the power of beauty and the importance of humility with respect to the natural world around us. After mindfully treating these assigned works, the class will identify the key elements necessary to cultivate a renewed sense of wonder in their own writing. In the last week and a half, students will actively work to develop, revise, and then deliver their original wonder-filled tale to the class, which features a sacred place and/or experience worth preserving for future generations.

Myself and the Future (*Nonfiction*)

Who are you? What defines your identity? Where do your thoughts and beliefs on worldly matters originate from? In this course, students are tasked with confronting their own ideas, biases, and preconceived notions about the world, or at the very least our tiny corner of it. Through this, students will gain the confidence to confront themselves on their own beliefs so that one day they may tell their own story. This course revolves around a series of miniature modules, each designed to help students get to the core of their beliefs and determine what they *really* think from what they *say* they think.

Constructing Differences (*Nonfiction*)***Also offered at the Honors level***

This English elective serves as a way for students to understand how the idea of “differences” are constructed as a result of societal norms, tensions, or shifts within a culture. We will examine the role that race, gender, sexuality, and culture are transformed and re-functionalized into systems of inequality. The course explores these topics through the tale of George Takei - the famous Hollywood actor known for his role as Hiram Sulu of the original *Star Trek* television series (1966-1969). In his recent graphic novel titled *They Called Us Enemy*, he recounts his time growing up as a young, gay Japanese American living in an internment camp during World War II. From the story we see the social construction of differences emerge as George’s family is relegated from citizens of the United States to “alien within” following the decision to classify Japanese Americans as enemy combatants in light of the attacks on Pearl Harbor in 1942. Students will be tasked with daily readings that will culminate in formal discussions on the aforementioned topics, as well as a series of written responses. Each response is guided by a similar set of questions wherein students are tasked with tracing various themes throughout the novel, such as the evolving identity of George, the role of his family, and the innocence of children amidst the racial violence imposed on Japanese Americans during the World War II era.

Epic Heroes (*Fiction, Poetry*)***Also offered at the Honors level***

This class will investigate the idea of Joseph Campbell's Monomyth and contextualize it through the examination of three heroic epics: "Beowulf", "The Odyssey", and "The Epic of Gilgamesh." Students will explore these works in a variety of formats: modern poetic translation, graphic novel, and prose translation. Sources will include Seamus Heaney's *Beowulf*, Gareth Hinds' *The Odyssey*, and a prose translation of "The Epic of Gilgamesh" by N.K. Sanders.

Modern Poetry (*Poetry*)***Also offered at the Honors level***

This course will cover a range of the most important periods and authors in poetry during the last century, allowing students to develop interpretive skills as well as to engage with the aesthetic, social, and political concerns of these modern authors. We will begin in the Modernist period, reading key figures such as Eliot, Pound, Stein, and Owen, before putting them into conversation with their American counterparts in the Harlem Renaissance. From there, we will spend some time with the Beat Poets and the Lost Generation before concluding with a study of recent authors such as Mary Oliver, Maya Angelou, and Wisława Szymborska. Emphasis will be placed on both on formal/technical analysis and also conceptual context and themes of various periods. There will likely be both a spoken or recitation component and an original writing component to the course.

Lifting Our Voices (*Nonfiction, Public Speaking*)***Also offered at the Honors level***

How can we use our voices to effect change? In this course, students will examine political speeches and propaganda that were historically successful in shifting societal perceptions on major social issues (civil rights, women's rights, workers' rights, etc.). Student teams will select a current political issue (local, state, federal) to investigate and engage with their peers in a Structured Academic Controversy to develop their ideas on the topic. Individual students will use what they learn about rhetorical devices, argumentation, and the issue at hand to write and present a persuasive speech that will convince first-time voters or other stakeholders of their stance. Teams will create a compelling video to further persuade members of their community. Sample topics might include mass incarceration, fracking, the electoral college, GMO labeling of foods, immigration policy, or any other issue of students' choice.

TEDTalks (*Public Speaking*)

This class will explore students' personal interests in the world around them while also developing their public speaking and writing skills. Students will research a topic of importance in the world today and write their own TEDTalk. They will also record themselves giving their TEDTalk and share that performance with the class. Students will also watch

several prime examples of TEDTalks on a variety of topics in order to gain a better understanding of the format.

Modern Drama (*Drama*)

Also offered at the Honors level

This course will study a wide range of dramatic works from the 20th and 21st Centuries, allowing students to get a taste for the breadth and complexity of themes, topics, and techniques present in modern drama. Potential authors include Bertolt Brecht, Samuel Beckett, Lorraine Hansberry, and Naomi Wallace. The course will put particular emphasis on the different elements of drama, examining the convergence of text, staging, acting, and direction. Along these lines, students will be expected to perform sections of various plays in class and to reflect on these experiences in a critical and thoughtful way. We will engage in a number of close readings and scene studies, taking slow and methodical approaches to key passages and considering a range of potential interpretations and presentations.

Literature and Film: The *Henriad* (*Drama*)

Also offered at the Honors level

This class will tackle Shakespeare and the ending of the Hundred Years' War, by focusing on four of Shakespeare's history plays and the television series developed around those works. By reading the plays as well as viewing the BBC miniseries *The Hollow Crown*, students will learn about the works of Shakespeare, the way in which Shakespeare manufactured stories from British history, and analyze the filmmakers' adaptations of the plays in question. Sources will include the plays *Richard II*, *1 Henry IV*, and *Henry V*. Students will view the corresponding films, as well as a portion of *2 Henry IV*.

Short Fiction Workshop (*Creative Writing*)

Designed to support creativity and develop writing skills in students, this is a writing and feedback intensive course in which students must feel comfortable sharing their work with their peers. Feedback is a highly important part of this process, so students will need to be able to give and accept constructive criticism. Daily exercises will focus on short pieces of writing, and the final goal of the class is to develop a small portfolio of 3-5 short pieces of solid fiction writing.

Lyric Poetry Writing (*Creative Writing, Poetry*)

This creative writing course is an introduction to the genre of lyric poetry, which is a type of poetry that expresses personal emotions or feelings, typically spoken in the first person. Students will explore examples of the genre as they write their own lyric poetry.

Creative Nonfiction Writing (*Creative Writing*)

This is an introduction to the genre of creative nonfiction, which uses literary styles and

techniques to create factually accurate stories. Students will explore examples of the genre as they write their own creative, nonfiction stories.

Young Writer's Workshop (*Creative Writing, Poetry*)

Also offered at the Honors level

This course is rooted in the idea of “organic creation” - a place where they can engage with themselves, their interests and passions in the pursuit of creative writing. Students will be tasked with writing poetry on a topic of personal interest/concern. Their poetry is in response to something, however the “something” is up to them. It can be an object, idea, person, event, etc. From this, students will gain a deeper understanding of the creative process associated with writing, and will hopefully gain the confidence to express themselves in a positive and constructive manner. The scope of the project can be expanded to include public readings of their work during school assemblies, open mic performances, cultural celebrations, as well as submissions to the Forman Literary Arts Journal.

HISTORY & SOCIAL SCIENCES DEPARTMENT

GRADE 9 GLOBAL STUDIES

Global Studies: Geography

Why is it important to have a solid understanding of how our world is organized, its natural resources, its climates, and what happens when the earth goes extreme? In this course students will gain a better understanding of the earth and how people live. We will also explore how the natural world impacts civilization. Central projects will be creating maps of the world, presenting on natural disaster/phenomenon and doing an environmental impact assessment.

Global Studies: Civilizations

Government, religion, law, and social structure are all parts of modern society, but they all came from the ancient world. This class will delve into the ancient world of Mesopotamia, Ancient Greece, the Far East, and the Americas in an attempt to figure out how our modern world became what it is today.

Global Studies: World Survey

In 2015, the average American lived only 18 miles from their mother. Most Americans never leave the country. Come travel with me exploring the six inhabited continents, learning about the people and culture around the world. During this class you will *travel*, exploring the nature scape and how the people of an area live. The final project is the creation of a trip that will take you and others to a place you have never been, to learn about a people you have never met. Pack your bags and let's go. Oh the Places You'll Go!

GRADE 10 UNITED STATES HISTORY

Founding Principles

Also offered at the Honors level

The American colonies and thus the United States were founded on conflicting principles. In fact, two of these principles were established at the same place in the same year while the other sprang into existence a few hundred miles north just a few months later. Founding Principles will examine the establishment of United States and the contradictory foundational principles of representative government, religious freedom, and chattel slavery.

From Reconstruction to the Civil Rights Movement

Also offered at the Honors level

The course is a review of post-Civil War America and the emergence of the Civil Rights Movement. What were the reasons for Reconstruction? If we had the 13th, 14th, and 15th amendments, why have African-Americans suffered over the years since Reconstruction? The course will examine organizations set up to support African-Americans (i.e. Freedmen's Bureau, NAACP, CORE, etc.) and contrast them with systemic oppression (i.e. Jim Crow laws, the Ku Klux Klan, Plessy v. Fergusson, etc.)

Flawed Greatness

Also offered at the Honors level

Thomas Jefferson is often considered to be one of the greatest of the Founding Fathers. His tombstone reads, "Author of the Declaration of Independence [and] of the Statute of Virginia for religious freedom & Father of the University of Virginia." What it fails to mention is that he also owned upwards of 600 slaves in his lifetime. Can such a transgression be forgiven? Can he still be considered a great man with such a dark past? Is anyone flawless and what flaws can or can not be forgiven?

UPPERCLASSMEN HISTORY ELECTIVES (11/12/PG)

U.S. HISTORY & AMERICAN STUDIES

The Presidency

While they each got there in very different ways, 46 people have been President of the United States. This class will examine historical elections, Presidents from significant eras in our history, and look at and debate the qualifications of the office. We will also examine upcoming and/or recent national elections.

Significant Cases of the Supreme Court

Since its first decision in 1791, the Supreme Court has been setting precedents. They have been getting it right and getting it wrong. This course will look at some of the most impactful decisions in United States history, from Marbury v. Madison, to Dred Scott v. Sanford, to Brown v. Board of Education and more, and we will examine the impact the Court has had on U.S. culture.

The Legacy of Mesoamerica

Chocolate is one of history's most alluring foods yet so many people know nothing about its origins. Did you know it comes from Mesoamerican societies? Do you know how sacred it is?

Come explore answers to these questions and more as we examine the Olmec, Mayan, Zapotec, and Aztec civilizations. In this course, students will examine the art, architecture, and religion of the natives. Students will also understand how the culture and practices within these several periods continue to influence us today.

Haunted History

America is haunted by many ghosts from its past. This course will examine why those ghosts exist and how they affect America today. We will look at the legacy of Jim Crow, the *White Lion* ship before the Mayflower, the horrendous warfare tactics during World War II, and other atrocities. The purpose of this course is to tell a different story in American history. Students will gain a complex perspective by understanding the involvement of America in various tragedies and triumphs from the past.

The Spirits of Natives

In this course, students will examine the experiences of Native Americans in United States history. Students will have the opportunity to learn about the tale of Pocahontas, the consequences of the Indian Removal Act, the experiences on the Trail Of Tears and other important events that shaped the lives of Native Americans. Throughout the course, students will think through these historic events and gain alternative perspectives. At the end of the course, students will better understand the customs and rich culture in both past and present indigenous populations.

March!

African Americans undoubtedly have fought endlessly for human rights. In this course, students will revisit these crucial moments of unrest in the form of a famous graphic novel series: *March* by John Lewis and Andrew Aydin. This award-winning historical series will help students understand the importance of the 1960s protests. At the end of the course, students will better comprehend the importance of these human rights movements and how they shape social movements today.

GLOBAL STUDIES AND INTERNATIONAL RELATIONS

Resistance During the Holocaust

Oscar Schindler wasn't the only person to resist the Holocaust. Many individuals and groups stood up against and resisted Adolf Hitler and the Nazi party's attempt to rid the world of the Jewish race and what they perceived as other human imperfections. In the face of extraordinary hardship/persecution, how do people have the ability to fight back? When you see something ethically wrong, what do **you** do?

Empires of China

The Chinese empires were among the most enduring empires on earth. How did each one rise and fall? What were some similarities and differences among them? In this course students will examine a series of different Chinese dynasties: the Xia, Zhou, Qin, Han, to name a few. Students will emerge from the course with a better understanding of Chinese culture, traditions, and impacts of Chinese history.

GOVERNMENT AND ECONOMICS

Civic Engagement and Citizenship

What does it mean to be a responsible US citizen? Voting, paying taxes, jury duty, etc. What about being an informed citizen and voting? How about stepping up and helping your fellow man when and where you can? Civic Engagement will help prepare students to be empathetic, caring, and engaged citizens of the United States and the world. The student's final project will be to research and deliver a presentation on an issue facing "their world," including a proposal to address the issue.

American Political Culture

This elective History module serves as a survey of various key topics rooted in our daily experience as American citizens. Our course begins with a general diagnostic that seeks to assess a student's beliefs and their overall commitment to a particular belief with the goal of highlighting discrepancies and tensions within one's ideological basis. We will spend a considerable amount of time addressing contemporary concerns and topics such as freedom of speech, freedom of religion, crime and punishment, immigration, as well as more universal ideas such as liberty, equality, and justice. The course will culminate in a final paper in which students will be tasked with writing about two topics that we will cover in class (or another topic, upon approval) in greater detail. This final assessment will allow students the opportunity to dig deep into the history of a particular subject, as well as an outlet to express their own opinions, in a judgment-free zone.

Government and Economic Systems

Ideas are powerful. Politics is complex. 21st century students are entering an increasingly global community that will challenge their thinking. Government and Economic Systems is an introduction to the purposes, structures, and functions of various forms of government. The structures and economies of selected countries will be presented, compared, and critically analyzed. In the first semester, students will examine political philosophy, constitutions, economic systems, and the diverse roles of citizens in shaping their political environment. In the second semester, students will examine the political and economic ideas that have shaped the U.S. through the study of political thinkers, leaders, ideas, institutions and policies, both

domestic and international. This course emphasizes writing, critical and creative thinking, and current events.

Capital and Finance

This course explores the theoretical and practical steps to ensure long-lasting financial security. Students were tasked with establishing short- and long-term goals, how to pursue them, and how to adjust them, should a challenge present itself. Students will reflect on their spending habits in order to understand and contextualize the value of time and money, and examine how money can be used productively. We will study the nature of capital; how the value of goods and services change depending on market conditions, as well as investment strategies one can utilize to ensure one's financial security over the long term. This course is project-based, commencing with an initial worksheet on goal setting, the creation and maintenance of an investment portfolio, studying real estate opportunities, and creating a resume. Each project will be designed to have practical applications to real-world scenarios; the goal being that one day a student may recall this knowledge when they are faced with such decisions.

Introduction to Economics

Prerequisite: Integrated Math II

Economics is the study of how societies manage their scarce resources. In this course, students will be able to look at the building block of economics. Topics include supply and demand analysis, elasticity, taxation, international trade, consumers, producers, and market. This course is to prepare students for further study in the field. Students will learn the importance of mathematics in explaining rational economic decision-making processes.

Macroeconomics

Honors Level Only. Prerequisite: Introduction to Economics. Corequisite: Enrolled in a mathematics class.

Macroeconomics is the study of economic-wide concepts of inflation, unemployment, and economic growth. In this course, students will be able to take a deeper look of this branch of economics. Topics will include measuring a nation's income, cost of living, production and growth, unemployment, the monetary system and inflation. Students will learn the importance of mathematics in explaining rational economic decision-making processes.

Microeconomics (two mods)

Honors Level Only. Prerequisite: Introduction to Economics. Corequisite: Enrolled in a mathematics class.

Microeconomics is the study of how households and firms make decisions and how they interact in markets. In this course, students will be able to take a deeper look of this branch of economics. Topics will include externalities, firm behavior, the organization of industry, the economics of the labor market, and the theory of consumer choice. Students will

learn the importance of mathematics in explaining rational economic decision-making processes.

ADDITIONAL ELECTIVES

The Taste of Time

Food tells a historical tale like any old textbook. In this course, students will explore global history through food. Students will ask themselves: Where does my favorite food originate? What history can I discover from food? How has it changed our world? As students investigate these questions, they will learn about the flow of goods and resources. At the end of the course, students will gain an understanding of the global market. Students may also learn new recipes.

The Echo of the Lion's Roar

How has Forman School evolved since its founding in 1930, and where might it go from here? Do you remember when there were three swimming pools, three air bubbles, and a hockey rink on campus? Do you remember when there were two schools and two campuses? How about when Albert Einstein was on the Board of Directors? When did Forman integrate? Since 1930 and the time of John and Julie Forman, the school has gone through many evolutions and it may go through more in the future. This class will examine the evolution of the school from its founding in the Great Depression, to the laying of the cornerstone of the VPAC.

History Guided Group Independent Study

"I have always wanted to learn about..." This is your opportunity to take a three-week plunge into the historical topic of your choice. At the end of the course, each student will deliver a fully documented "class" on their topic with their classmates.

Social Animals

This course will be a combination of psychology, sociology, and ethnography as we develop knowledge of how American social structures have functioned in the past, how they've changed in the 21st century, and how we can strengthen communities in our current social climate. You'll be reading John Medina's "Brain Rules" to learn how the human brain responds to social environments while also reading case studies and theory from Peter Block and Robert Putnam. This course will also develop skills that you need to become a confident leader in your community. The course's major component will be a real-time study into something you'd like to change in the Forman community and how to cultivate that change in real-time with research, evidence, and courage!

Women and Leadership

How do women leaders lean in? Break the glass ceiling? Navigate the leadership labyrinth? Women and Leadership examine challenges and opportunities related to women's leadership development. Topics addressed include: Research on gender and leadership styles, traits, and effectiveness; Effects of stereotypes, prejudice, and discrimination and women's under-representation in leadership; Identity, intersectionality, and global dimensions of women's leadership; Effects of role conflict and media coverage of female leaders; and Strategies for social change.

[Note: This syllabus builds upon the publically shared curricula and syllabi of Dr. Marsha Guenzler-Stevens & Katie Hershey (University of Maryland), Dr. Crystal Hoyt (University of Richmond), and Dr. Barbara Kellerman (Harvard University). The instructor thanks them for their intellectual contribution to this field and generosity in sharing course materials.]

Vulnerability and Accountability

We begin this course by asking a simple question: what is your truth? We'll explore Brene Brown's seminal work on vulnerability as a pillar of truth-seeking. We'll explore her research from various texts and then apply it to analyze both personal and community vulnerability. We then will shift our focus into the theme of accountability, the power of creating habits, rigor, and agency. Combining these two themes should leave you with a deeper sense of self and the ability to move forward with purpose.

MATHEMATICS DEPARTMENT

The Mathematics Department provides a stimulating and challenging curriculum for students with a wide range of mathematical backgrounds. Instead of focusing solely on content coverage as a gauge for success, teachers emphasize building confidence and accuracy of computation when problem-solving. Through this approach, we strive to cultivate confident, lifelong learners who are grounded in sound math fluency and have strong problem-solving skills when they enter college.

All students taking a math class are expected to have a calculator for use in the classroom and on their homework. Students who do not have their own calculator at the beginning of the year will be able to purchase one through the School store during the first week of classes.

Introduction to Secondary Mathematics

This course is designed to prepare students for the integrated math courses at Forman. Topics covered include real and rational numbers, variables, expressions, equations, inequalities, factors, fractions, exponents, percents, and probability.

Integrated Math I

Prerequisite: Introduction to Secondary Mathematics or equivalent

This is the first course of a three-course sequence that covers the topics generally studied in Algebra I, Geometry, and Algebra II. The integrated approach introduces topics in a manner that highlights connections between concepts and allows for more spiraling of content throughout the three courses. Topics covered in this course include linear equations, linear inequalities, linear functions, systems of linear equations, exponential functions and sequences, data analysis, parallel and perpendicular lines, transformations, and congruence.

Integrated Math II

Prerequisite: Integrated Math I or equivalent. May be taken at an Honors level with department recommendation.

This is the second course of the integrated math sequence and builds upon the work done in Integrated Math I. In this course, students continue to study a variety of topics and their applications. Topics covered in this course include functions, exponents, polynomials, factoring, quadratic functions and equations, probability, similarity, properties of polygons, right triangle trigonometry, properties of circles, area, and volume.

Integrated Math III

Prerequisite: Integrated Math II or equivalent. May be taken at an Honors level with department recommendation.

This is the third course of the integrated math sequence and continues to build upon the work done in the previous two courses. The work done in this course will continue to reinforce the concepts previously covered which allows for more complex and challenging types of problems. Topics covered in this course include geometric modeling, linear and quadratic functions, polynomials, radical functions, exponential functions, logarithmic functions, rational functions, sequences and series, trigonometric functions, and data analysis.

Additional Mathematics

Prerequisite: Integrated Math III or equivalent and department recommendation. Offered at the Honors level.

This course is designed for students who are interested in the study of mathematics up to and through calculus in the future. The curriculum consists of many traditional topics including quadratic and polynomial functions; exponential and logarithmic functions; trigonometric functions and identities; sequences and series; an introduction to derivatives; as well as other skills students will need for success in calculus.

Probability

Prerequisite: Integrated Math III or equivalent

This one-mod course gives students a more in-depth look at the study of probability and how it relates to the world around us. Topics covered include sample spaces, conditional probability, permutations, combinations, binomial distributions, and normal distributions.

Statistics

Prerequisite: Integrated Math III or equivalent

This one-mod course provides a more in-depth look at the study of statistics and how it relates to the world around us. Topics covered include data classification, graphical displays of data, measures of central tendency, standard deviation, percentiles, and z-scores.

Pure Mathematics I

Prerequisite: Additional Mathematics or equivalent and department recommendation. Honors Level Only. Offered in Mod 1 and Mod 2.

This calculus-based course covers the content contained in the Pure Mathematics 1 section of the Cambridge Assessment International A Level Mathematics syllabus. Many of the topics covered in this course will be familiar to students from previous math courses but the types of problems will be more advanced. Topics covered will include trigonometric proofs, series, differentiation using the power and chain rules, and an introduction to integration.

Pure Mathematics II

Prerequisite: Pure Mathematics I or equivalent and department recommendation. Honors Level Only. Offered in Mod 3 and Mod 4.

This calculus-based course covers the content contained in the Pure Mathematics 2 section of the Cambridge Assessment International A Level Mathematics syllabus. Topics covered will include the product and quotient rules, differentiation and integration of logarithmic, exponential, and trigonometric functions, implicit differentiation, parametric differentiation, and using iterative formulas to find numerical solutions of equations.

Pure Mathematics III

Prerequisite: Pure Mathematics II or equivalent and department recommendation. Honors Level Only. Offered in Mod 5 and Mod 6.

This calculus-based course covers the content contained in the Pure Mathematics 3 section of the Cambridge Assessment International A Level Mathematics syllabus. Topics covered will include partial fractions, binomial expansions, integration by substitution, integration by parts, vectors, differential equations, and complex numbers.

COMPUTER PROGRAMMING

Introduction to Programming in Python I

Prerequisite: Integrated Math II or equivalent

Designed for students without any programming experience, this course gives students an introduction to the world of computer programming. Students will learn about the foundations of programming languages including variables, expressions, functions, conditional statements, and iterations. Throughout the course, students will use the Python programming language to write and debug a variety of computer programs.

Introduction to Programming in Python II

Prerequisite: Introduction to Programming in Python I

This course builds upon the work done in Intro to Programming in Python I. Students will continue to study more complex aspects of programming in the Python language which will allow them to write more advanced code. Students will continue to use the Python programming language to write and debug computer programs.

SCIENCE DEPARTMENT

9TH GRADE: INTEGRATED SCIENCE

The Scientific Method

In this course, students will have opportunities to design their own experiments, collect and analyze data, come to a conclusion, and write lab reports. Throughout the course, students will be introduced to reading for scientific comprehension, how to take Cornell notes, and how to organize data that they collect. As they learn about different concepts such as qualitative and quantitative data, they will also be conducting experiments to help practice and understand new concepts before they can be applied to their final projects. Labs and lab reports will be part of the curriculum.

Sustainable Development

In this course, students will learn about the history of human's energy consumption to set the background for how to move forward in a society that continues to raise its demand for energy. Students will examine a variety of energy resources from fossil fuels to cutting-edge innovations and compare and contrast the pros and cons in order to contribute to a discussion of how we continue developing a sustainable society. Students will examine data from Forman's own resource consumption; from energy to water as well as the waste we produce, to evaluate how we can move the campus in a more sustainable direction. Labs and lab reports will be part of the curriculum.

Freshwater Ecology

The freshwater ecology course will start by defining what ecology is, moving through ecosystems, food webs, and how species' interactions affect the world around them. We will primarily be using the stream on Forman School's campus to examine ecosystem functions by collecting macroinvertebrates from the water and analyzing them to determine stream health. Students will collect data and calculate the biotic index of the Forman Stream and connect the stream to different aspects of the natural ecosystem around it in a written report. They will compare how streams serve different roles in ecosystems compared to lakes and bogs, but how eventually they are all connected. Furthermore, students will analyze the effect of human interactions with the natural environment and examine the effects of eutrophication as well as disruption of the water cycle. Labs and lab reports will be part of the curriculum.

10TH GRADE: BIOLOGICAL SCIENCE

All students are required to take Cell Theory as a first course. Students must take a total of three courses in Biological Science to earn a full credit.

Cell Theory

Also offered at the Honors level.

In 1665, Robert Hooke peered into a microscope of his own invention and first coined the term *cell* - the basic building block of life on this planet. The cells within the human body exist in tiny, complex worlds working tirelessly in all parts of your body to keep you alive and make you function. What do these tiny worlds look like and how do cells live and work within them? Through study in this course, students will learn how these tiny factories work together in perfect unison to support even the most complex and massive of organisms. We will also investigate what happens when errors in the cell cycle lead to tumor growth and cancer. Labs and lab reports will be part of the curriculum. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

Microbiology

Prerequisite: Cell Theory. Also offered at the Honors Level.

Earth is fundamentally a microbial planet. Anton van Leeuwenhoek's 1675 discovery of microbes using a microscope of his own design, set the stage for the study of this invisible world. Microorganisms can be found all over earth, even in the most extreme environments, and are essential for sustaining life. These microbes play key roles in nutrient cycling, biodegradation, climate change, food spoilage, the cause and control of disease, and biotechnology. Thanks to their versatility, microbes can be put to work in many ways: making life-saving drugs, the manufacture of biofuels, cleaning up pollution, and producing/processing food and drink. Students will analyze the influence of microbiology and 21st century challenges and opportunities that arise from our changing relationship with and understanding of the vast world of microorganisms. Labs and lab reports will be part of the curriculum.

Honors level only: To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

Cells and Energy

Prerequisite: Cell Theory. Also offered at the Honors Level.

Cells manage a wide range of functions in their tiny package — growing, moving, housekeeping, and so on — and most of those functions require energy. But how do cells get this energy in the first place? And how do they use it in the most efficient manner possible? What even is energy? Through study in this course, students will investigate the structures and

processes involved in the production, storage and eventual use of cellular energy, how that energy is stored and released in fossil fuels. Labs and lab reports will be part of the curriculum. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

DNA

Prerequisite: Cell Theory. Also offered at the Honors Level.

The structure of DNA stands as one of the greatest discoveries of the 20th century and has led to multibillion-dollar advancements in medicine and agriculture. An understanding of DNA and its applications is necessary to distinguish fact from fiction, make informed decisions, and take full advantage of emerging DNA technologies. This course presents the fundamental concepts related to DNA including its history, structure, function, regulation, and inheritance. Labs and lab reports will be part of the curriculum. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

Genetics

Prerequisite: DNA. Also offered at the Honors level.

The Human Genome Project, which began in 1990 and was declared complete in early 2003, was a pioneering project to sequence gene pairs for all the genes in the human cell. Since publication, this international project has been the springboard for new research into the recombination and editing of those genes. This course explores multiple issues and topics that are founded in genetics and DNA technology including the causes and treatments associated with genetic disorders, the creation of genetically modified foods, identification through DNA fingerprinting, tracing of family lineages, the applications and ethics of cloning and gene editing, and the underlying mechanism of evolution. Labs and lab reports will be part of the curriculum. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

Evolution

Prerequisite: Genetics. Also offered at the Honors level.

Students will begin with a study of the possible origin of the earliest life on earth. From that, they will develop a possible map of the sequence of life's earliest developments, including the first possible cells, and including bacteria and archaea. The history of evolutionary thought will be traced, from Aristotle to Darwin, including early explorations in geology and Human population dynamics. Students will trace the arc of Darwin's "Dangerous Idea" of Natural Selection, from blasphemy to well-accepted concept. Students will explore the development of a fossil record, with particular attention to the modern technology which allows for

determining the age of fossils and the relationships between developing species. Finally, students will consider the forces behind accelerating modern changes that can push evolution in unexpected directions. Students will be able to identify examples of change through the statistical application of the Hardy-Weinberg principle. Labs and lab reports will be part of the curriculum. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework and to organize and present their experimental findings to the class.

UPPERCLASSMEN SCIENCE ELECTIVES (11/12)

Underclassmen who have room in their schedules may choose additional Science classes from the upperclassmen electives with the exception of Physics, Human Anatomy and Physiology, and Field Ecology.

BIOLOGY

Adaptation and the Organism

Adaptation and the Organism will introduce and strengthen the students' understanding of evolutionary and ecological factors and how these factors influence the diversity of life. The course will begin with examining the Tree of Life and developing taxonomic terminology for classifying species. We will then transition into discussing the core components of evolutionary theory. In doing so, we will examine how these evolutionary processes have shaped the morphology and physiology of organisms to survive and reproduce. Adaptation and the Organism will feature a field experiment on natural selection as well as lab reports.

Natural Selection & Animal Behavior

Prerequisite: Adaptation and the Organism

This course will focus on the interaction between evolution and the observable behavior of organisms. Shaped by millions of years of evolution, animals have evolved abilities to respond to their environment, their predators, and their prey. Drawing from a wide variety of animal species, we will explore evolutionary-driven dynamics within species and between different species. Topics in this course will include animal communication, sexual selection, and cooperation. This class will feature a combination of fieldwork and lab reports.

Mapping Evolutionary Biology

Prerequisite: Adaptation and the Organism

This course will explore how genetic mutations and natural selection can lead to the prosperity of some species and the extinction of other species. In this course, students will study concepts in speciation, adaptation and population genetics, and then learn how to map the evolutionary history of groups of genetically related organisms. Students will demonstrate their learning through activities such as structured experiments, modeling, and a final project symposium

where the students will explain and illustrate the evolutionary history of a species of their choice. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

Mutations and Genetic Change

Prerequisite: Adaptation and the Organism

This course will focus on the concept of the genetic mutation. When does a mutation occur? How often does a genetic mutation occur in various organisms and what is its functional impact on the organism? This class will begin with the microbiology understanding of genetic mutations and will transition into exploring how mutations drive evolution at the organism level. We will use a variety of species, including viruses, as examples to explain the significance of mutations and conclude with understanding how biologists work to better predict the probability of future mutations. Labs and lab reports will be part of the curriculum.

CHEMISTRY

Three courses are required to earn one full credit.

Qualitative Chemistry

Also offered at the Honors Level

The course will cover an array of topics including properties of matter, chemical reactions, atomic theory, and bonding. Students will demonstrate mastery of fundamental concepts of chemical change, acquire essential lab skills, and develop critical thinking and problem-solving skills. Experimental design and data analysis are emphasized. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets, graphing programs, and a standard scientific calculator. Topics of study include: The Scientific Method, Properties of Matter, Atomic Structure, Periodic Table, Chemical Bonding, Nomenclature, qualitative chemistry labs, and demonstrations. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework. Students will be expected to summarize and present findings to the class.

Quantitative Chemistry

Prerequisite: Qualitative Chemistry. Also offered at the Honors Level

This course will explore how the periodic table is a tool to predict chemical bonding, chemical formulas, mole relationships, and stoichiometry. Clear expression of the “logic” of periodic table organization will be assessed through written and verbal assessments. Students will explore the properties of solids, liquids, and gases. Students will demonstrate mastery of fundamental concepts of quantitative chemistry, acquire essential lab skills, and develop critical thinking and problem-solving skills. Experimental design and data analysis are emphasized. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets, graphing programs, and a standard scientific calculator. Topics of

study include: Measurement, Moles, Chemical Reactions, Stoichiometry, States of Matter, Gas Laws, quantitative chemistry labs, and demonstrations. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework. Students will be expected to summarize and present findings to the class.

Chemistry Reactions

Prerequisite: Qualitative and Quantitative Chemistry. Also offered at the Honors level.

In this course, students will examine the properties and reactions associated with acids and bases, oxidation-reduction, and exothermic and endothermic reactions. Essential lab skills, problem-solving skills, experimental design, and data analysis are emphasized. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets, graphing programs, and a standard scientific calculator. Classic Chemistry reactions, titrations, redox, exothermic and endothermic reactions. This class will teach students the full continuum of lab skills: understanding the purpose and chemical reactions of a lab, handling of equipment from set up to tear down, collecting, measuring, and mixing chemicals, data interpretation, and justification for chemical reaction results. **Honors level only:** To accelerate the pace of the course, students will be expected to read and practice concepts for homework. Students will be expected to explain the chemistry that underlies each reaction type listed above. Students will be expected to summarize and present findings to the class.

FORENSICS

Criminalistics

Criminalistics is the study and evaluation of physical evidence at a crime scene. Students will learn what evidence investigators look for, how they collect it, how it is analyzed, and how reliable the evidence is. Fingerprints, blood, hair, fiber and trace evidence are examples of the data that will be collected, analyzed and discussed. This course will focus on labs as the driving force of investigating and learning; labs and lab reports will be part of the curriculum.

Can DNA Demand a Verdict?

This course will examine how DNA is used in Forensic Science, how to build and analyze a DNA profile, and how DNA is used in investigations and trials. A combination of case studies, labs, discussions and debates will be used to learn about the technology of DNA profiling as well as the pros and cons of DNA profiling. Labs and lab reports will be part of the curriculum.

Forensic Psychology

Can you trust your eyes? This course will cover the effectiveness of eyewitness testimony and interrogation techniques based on the psychology of perception and memory. Perception and memory will also be used to examine bias in law enforcement and profiling. Students will learn

about these topics through hands-on activities and discussions and will demonstrate their knowledge through labs and debates. Labs and lab reports will be part of the curriculum.

Forensic Anthropology

This course will cover the use of skeletons in investigations. Students will learn basic skeletal anatomy as well as how bones are found, collected, and analyzed. Students will investigate just how much scientists are able to learn from bones, and how this information is useful in an investigation. Labs and hands-on activities will drive this class and will be accompanied with presentations, discussions, and case studies. Lab reports will be part of the curriculum.

GEOLOGY

Dynamic Earth

Students in this course will focus on understanding and describing geologic processes such as plate tectonics, deformation and weathering as well as earth materials including rock and mineral identification. The course focuses on the fundamentals of earth processes to help students begin to understand the geologic processes that influence the landscape around them. Labs and lab reports will be part of the curriculum.

Volcanology

Volcanology is concerned with the detailed study of volcanoes, magma, lava and other geochemical, geological and geophysical elements related to volcanoes. Through study in this course, students will develop an understanding of the types, origin, activity, products, and hazards of volcanoes as well as the technology that goes into tracking and predicting eruptions. Labs and lab reports will be part of the curriculum.

Rocks and Minerals

You can tell a lot about the geology of an area by looking at old buildings. Ever curious about what kind of rock that is or how it was made? This course focuses on the classification, occurrence, and origin of igneous, metamorphic, and sedimentary rocks and the minerals contained within them. Particular attention will be given to the geology of northwest Connecticut and the rocks and minerals that can be found throughout the Forman campus. Labs and lab reports will be part of the curriculum.

Geocinema

When was the last time you watched a movie and thought: *Huh, that seems a little exaggerated?* Geologists know that our planet is incredibly exciting and dynamic, but nowhere is the story of the behavior of our planet more dramatized and misrepresented than in movies! Through study in this course, students will have to view a variety of movie clips that focus on

geologic hazards (such as volcanoes, earthquakes, avalanches, floods, and tsunamis) and other earth processes (origins of life, evolution, mass extinction, climate change, and glaciers). Students will work to critique these cinematic portrayals of earth's processes and recreate a more realistic representation based on science. This is not intended to be a lab course.

ANATOMY AND PHYSIOLOGY

Three courses are required to earn one full credit.

The Skeletal System

In this unit, students will understand the function of bones and learn the 206 bones of the body. Students will dissect owl pellets, identify rodent bones, and make a 3D model of the skeleton of the rodent, with all bones in the proper location. Labs and lab reports will be part of the curriculum.

The Brain and Nervous System Anatomy

In this course, students will learn the lobes of the brain and their functions. Each laboratory group will have a fetal pig that will be used to augment each of the anatomical units. In the beginning of the semester, we will dissect the brain from the fetal pig to begin a foundation for the study of the body's control center. The physiology part of our class will be a bit more creative as students need to see the process or movement of a process. For this we will control cockroach legs with music stimuli, to look at nervous system phenomena. Labs and lab reports will be part of the curriculum.

Ear and Eye Anatomy

In this course, students will learn more about the inner workings of the eye and ear through diagrams and dissection. Students will dissect a sheep's eye and pig's ear. They will understand how each functions by removing parts of the eye and ear and processing them under the microscope. Labs and lab reports will be part of the curriculum.

Embryology

In this class, we will be looking at the fetal development of chicks in our incubator over a 21-day period. We will watch the daily milestones and compare their development to human development in the womb. Students will keep an embryology journal to track daily development. We will also study the evolution of vertebrates, highlighting how, for the first eight weeks, many vertebrates have the same characteristics...like a tail! This class is a lab class and will use equipment such as incubators, candler, and microscope. Labs and lab reports will be part of the curriculum.

PHYSICS

Three courses are required to earn one full credit.

Motion I

Also offered at the Honors level.

This course introduces the underlying principles of all types of movement and the forces that generate them. Following a brief look at the language of physics, the first focus is on motion in one dimension. An understanding of displacement and velocity will lead to acceleration and, in particular, the behavior of falling objects. Laboratory exercises will develop a hands-on grasp of real-life applications. The study of two-dimensional motion and vectors will then allow students to investigate an even greater variety of real-world situations. Projectile motion, for example, will demonstrate a combination of vertical and horizontal velocities. All learning will be supported by the appropriate formulas for more accuracy. Labs and lab reports will be part of the curriculum.

Motion II

Prerequisite: Motion I. Also offered at the Honors level.

This course will further identify and apply the rules of object motion learned in Motion I. It will begin with the forces that can cause matter to change speed or direction, resulting in acceleration. A thorough look at Newton's three Laws of Motion and how they fit into every corner of our lives will be a cornerstone of this course. An understanding of the physics of driving will play heavily into many themes. The concept of energy and the work that it can do will be scientifically defined along with various lab investigations. The critical aspects of any two colliding objects will be calculated as part of momentum and its conservation, the critical characteristic, impulse, and the potential damage an auto accident can create. As a follow-up to linear two-dimensional motion, circular motion topics will be explored, including motion in space, and torque. Labs and lab reports will be part of the curriculum.

Waves

Prerequisite: Motion I & II. Also offered at the Honors level.

Because waves can take so many forms and affect us in so many ways, this course begins with an extensive introduction to transverse and longitudinal waves. Waves as carriers of energy is the unifying theme, with a variety of applications, such as sound, earthquake effects, and all of the electromagnetic waves and their behaviors. The behavior of sound waves will be closely studied relating, in particular, to hearing and to the music created by different musical instruments. Earthquakes, their causes and their effects, will be researched and discussed as a team seeking better building standards. The concepts of reflection, refraction and diffraction will be explored to better understand their impact on our everyday lives. The behavior of light will be a focus, including the refraction of eyeglass lenses and the reflections of plane, concave and convex mirrors. The relationship between wave velocity, frequency and wavelength will be

a starting point throughout the many evaluations of different wave types. Labs and lab reports will be part of the curriculum.

Electricity

Prerequisite: Motion I & II. Also offered at the Honors level.

Beginning with a look at static electricity, this course will begin to show the possibilities of harnessing this amazing energy source. The nature of static charge, in terms of electron movement and storage will be linked with our understanding of conductors and insulators. In this first section, we will look at the historical record, from the first storage of charge, continuing on up to the battles of AC vs DC generation and transmission that began the modern age of electricity. A thorough understanding of the behavior of electrical current will be discussed and then applied to the construction of simple circuits, along with the nature of house wiring and safety. As an important part of our understanding, students will carefully research each of the methods of commercial energy generation. A consideration of electrical and magnetic fields will allow for a better understanding of forces working at a distance. This will then allow for a clear understanding of transformers and of electromagnetic waves. Labs and lab reports will be part of the curriculum.

PSYCHOLOGY

Scientific Approaches to Psychology

Scientific Approaches to Psychology is designed to give students their first exposure to the field of Psychology. We will begin the class with discussing the competing perspectives in psychology that drive the debates and discussions in the subject. We will then actively practice the scientific method with psychology-focused questions. In this section of the course, we will learn how to organize, visualize, and analyze data from research studies. In addition, there will be a focus on identifying the limitations of psychological research both in terms of their validity and ethics. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

Psychology and the Human Brain

Prerequisite: Scientific Approaches to Psychology

Psychology and the Human Brain will focus on the biological perspective in the field of psychology. The course will cover neural and brain anatomy with a focus on how parts of the nervous system impact our behavior. Students will demonstrate their learning through activities such as structured experiments, modeling, and a project symposium involving a detailed study about the psychological relevance of a section of the brain or a component of the neuron. The course will also explore how we use our senses to perceive the world as well as the

significance of our different states of consciousness (e.g. sleep vs. hypnosis). This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

Abnormal Psychology

Prerequisite: Scientific Approaches to Psychology & Psychology and the Human Brain

The class Abnormal Psychology will utilize key perspectives in psychology to examine the nature, basis, and treatment of prevalent behaviors that prevent people from functioning in their daily lives. The course will focus on understanding the complexities of mood disorders, anxiety disorders, and language-based learning differences. In closely studying these psychological disorders, students will develop the toolkit to approach questions about abnormal behavior like a psychologist, while understanding the problems with self-diagnosing. Students will demonstrate their learning through activities, written responses on analyzing examples of abnormal behavior, and building a presentation in which the students study a learning difference present at the Forman School.

Social Psychology

Prerequisite: Scientific Approaches to Psychology & Psychology and the Human Brain

Social psychology is the study of how people think about, evaluate, and respond to their social experiences. In much of your waking life, you are interacting with others. This class will explore theories and concepts that help explain questions such as: Under what circumstances are people more likely to conform to social pressures? How can people overcome their biases and stereotypes? Students will be encouraged and challenged to think critically about how their personal experience can be better understood with social psychology theory. This class is intended to be a lab science. Labs and lab reports will be part of the curriculum.

Cognitive Psychology

Prerequisite: Scientific Approaches to Psychology & Psychology and the Human Brain

Cognitive psychology is a perspective in the field that is anchored around our thoughts and beliefs. This class will explore the psychological theories and concepts behind how to use reasoning, problem solve and understand language through a variety of engaging activities and projects. The course will also examine the concept of intelligence and identify the strengths and weaknesses for quantifying it. We will conclude the course with an introduction to human memory that students will have the opportunity to explore more in-depth, in the elective course Memory. This class is intended to be a lab science. Lab and lab reports will be part of the curriculum.

Behavioral Psychology

Prerequisite: Scientific Approaches to Psychology & Psychology and the Human Brain

This class will be centered around our responses to our surroundings and environment. We will start with exploring two fundamental concepts to learning: classical conditioning and operant

conditioning, and how they help explain our behavior in everyday situations. The course will then examine the psychological theories and concepts that structure our understanding of our emotions and motivations. The students will conclude the class with learning how psychologists interpret someone's personality and they will demonstrate their new understanding by crafting a personality test that resembles one of those that we closely review in class. Students will be encouraged and challenged to think critically about how your personal experience can be better understood with behavioral psychology theory. This class is intended to be a lab science and lab reports will be part of the curriculum.

Sports Psychology

Prerequisite: Scientific Approaches to Psychology & Behavioral Psychology

This course examines the psychological factors that impact athletic performance and behavior. Students will cover topics such as group dynamics, coaching styles, motivation, burnout, and the impact of gender from the perspective of sports. The course will also explore highly debated topics in several sports such as the "homefield choke" and the "hot-hand effect". Students will demonstrate their learning through activities, written responses on sports documentaries that highlight psychological variables, and a final poster project testing the Forman community on one of the topics discussed during the course.

Memory

Prerequisite: Scientific Approaches to Psychology, Psychology and the Human Brain, and Cognitive Psychology

In Memory, we will explore the psychological science of human memory. Through a wide array of interactive memory tasks, we will examine how we use our distinct memory systems: short-term memory, working memory, and long-term memory, to encode, store, and retrieve information. In this process, the students will discover what factors make it easier or more challenging to remember new items. We will then put our new memory strategies to the test with our own Memory Games Competition! The class will conclude with a discussion about the costs and benefits of our tendencies to forget memories. Students will be assessed on tests, written work, and formal discussions.

ROBOTICS

Robotics

This project-based course teaches the design process in an engaging, hands-on manner that challenges, motivates, and inspires students. By moving through an actual engineering project, students quickly understand the relevance of what they are learning. No prior robotics experience is required; beginners are able to advance sequentially through the units to gradually increase their knowledge and skill level. Students design and build a mobile robot to

play a sport-like game based on the annual announcement at the "World Competition" held in April. During this process, they learn key STEM principles and robotics concepts. At the culmination of this class, they will compete head-to-head against their peers in the classroom, or potentially on the world stage in the VEX Robotics Competition.

Advanced Robotics

Prerequisite: Robotics

This course is geared toward competition and builds on the programming skills learned in Robotics. In this course, students use their engineering notebooks to record their designs mathematically, including sketches and narrative notes. Students become active in the engineering process and design. They become more aware of strategic planning and design to support more frequent competition against peers in the classroom or potentially in competitive VEX robotics games.

TROPICAL ECOLOGY SEMINAR

Students enrolled in this seminar must take each class. Students will earn one full credit.

Open to Grades 11, 12, PG only.

Tropical Ecology Seminar focuses on current global environmental issues by studying how they have impacted the tropical rainforest and how the tropical rainforests affect world climate. Students focus on one of five ongoing research projects in class and in the rainforest of Costa Rica. Utilizing college-level material, the curriculum addresses four major areas: field research skills, critical thinking skills, an in-depth view of tropical biology, and the complex issues of tropical deforestation. Each unit demands a considerable amount of time outside the classroom conducting independent research. Students interested in taking this seminar must participate in a rigorous interview process. The interview committee, comprised of student members and the seminar faculty facilitators, will determine participants in this seminar for the 2021-22 academic year.

Initial courses in the seminar are devoted to the study of the world's rainforests and internationally accepted methods for collecting data. This course content is put into practice during two weeks of field study in the Rainforest of Costa Rica. The results of this field study will be presented to local community groups and data is sent to interested Universities. The Winterim trip to the Rainforest of Costa Rica incurs an additional cost.

The following course offerings are only available to students enrolled in TES and participating in the Forman Rainforest Project trip to Costa Rica during the Winterim.

Wildlife Populations

This class will take place in the field doing a population inventory of wildlife species on campus. Students will learn how to be wildlife technicians, using data collection methods that are acceptable to University and conservation databases all over the world. Students will learn how to collect data and to interpret the results. Data will be used in algorithms, which help to understand wildlife populations and whether laws are needed to protect those populations. Sometimes you just don't know what your data shows until you enter the numbers in Excel or plot them on a graph. This class is a field class and will be focusing on the rarest species in the tropics and on campus. This class will prepare students to collect data on wildlife in the jungles of Costa Rica.

International Conservation Law

What laws govern endangered and threatened species? This course looks at laws governing wildlife all over the globe. These laws, while often overlooked or not remembered, are why many of our species have survived (i.e., the Bald Eagle). We will look at 5 case studies including: Amur Tiger, African Lion, African and Asian Elephants, Jaguar, and our local Bobcat. This discussion- and project-based class will provide a stimulating view at how the laws of conservation help species in peril, with whom we share the planet. This training is essential to prepare students to collect data on endangered species in the jungles of Costa Rica for University and Conservation databases.

Wildlife Analytics and Presentation

After the return from Costa Rica, students will analyze their results and look for data patterns and population numbers in the species they studied. This class has often yielded new information on species which sheds light on their current population status or behaviors not yet seen in science. Members of the Forman Rainforest Project have found amphibian and reptile species thought to be extinct, have documented rare behaviors of migrant birds, and have documented new information on spider silk. Some of this information has put us on the world stage as experts in the field. In addition, students will learn how to enter data into University and Conservation databases. Students will present their data to an audience in a scientific and entertaining manner. This class is an exciting opportunity to make a difference in Wildlife Conservation as their data is quickly used by algorithms and disseminated as they educate the general public in a professional way. Finally, students will present their data in a scientific paper, entering it into the Forman Rainforest Project's website. This website has been acknowledged by some of the largest conservation sites in the world, like the BBC.

FORMAN BUILDS A FARM

Agriculture

The 21st century world has wedged a gap between western culture and the food that we eat everyday. With the advent of processing plants and transportation, it is often difficult to recognize where our food actually comes from. Through study in this course, students will gain an understanding of the methods and science behind organic farming as they work to propose and design a working fruit and vegetable farm on campus. Concepts covered in this course include soil chemistry, plant physiology, and horticulture, while broader themes of study include sustainability, climate change, and ethical land-use practices. Labs and lab reports will be part of the curriculum.

Soils

Prerequisite: Agriculture

From the food we eat to the air we breathe, soil shapes our lives. Soil forms in response to local conditions, recording regional climate variability (if you know how to look). Soil is also one of the most important carbon sinks, so the way we interact with soil has the potential to seriously impact our changing climate. However, as an important agricultural resource, we must continue to utilize soil to feed Earth's growing population. This introductory course in soil science introduces students to the study, management, and conservation of soils as natural bodies, as media for plant growth, and as components of the larger ecosystem. Through study in this course, students will work to evaluate locations on the Forman Campus that would be most suitable for cultivation. Labs and lab reports will be part of the curriculum.

Fermentation and Preservation

Prerequisite: Agriculture

Fermented foods are the healthiest, cheapest and some of the most delicious superfoods available in the world and have allowed humans throughout history to keep food edible through times of scarcity. Through study in this course, students will learn the history and science behind fermentation and preservation. Labs and lab reports will be part of the curriculum.

Botany

Prerequisite: Agriculture

Humans have been cultivating land for thousands of years. What began as herbalism, the study of medicinal plants and their properties has evolved into the intricate science of how plants grow, utilize nutrients, reproduce, and provide humans with vital sustenance. This course provides an introduction to the classification, relationships, structure, and function of plants. Topics include reproduction and development of seed and non-seed plants, levels of

organization, form and function of systems, and a survey of major taxa. Labs and lab reports will be part of the curriculum.

Population Ecology

Prerequisite: Agriculture and one other course in the FBAF curriculum.

The course introduces central theories within population ecology which include the importance of abiotic factors, competition, predation, herbivory, dispersal, diseases and harvesting strategies for fluctuations in population sizes. Topics of study include food chains, food webs, invasive species, density and distribution, and community interactions. Labs and lab reports will be part of the curriculum.

HEALTH, WELLNESS AND LEADERSHIP

All students new to Forman take two modular Health, Wellness, and Leadership courses in their first year: Healthy Choices 1 & 2. Returning students will take two additional modules prior to graduation: Healthy Relationships 1 & 2. Health, Wellness, and Leadership courses focus on promoting a healthy mind and body. The objective of these courses is to help students build a strong sense of who they are, to examine their core values, and to recognize the outside forces that can reinforce or challenge those central beliefs. These courses are graded Pass/Fail.

Healthy Choices 1

This course is offered in the fall for all new students and in the spring for new mid-year students. In this course, students will learn about the connections between mental and physical health and develop a toolbox for addressing daily challenges.

Healthy Choices 2

This course is offered in the fall for all new students and spring mid-year students. In this course, students will learn about the effects of substance use on mental and physical health and build action plans for making healthy choices.

Healthy Relationships 1

This course is offered in the fall or spring for returning students. In this course, students will learn about the difference between healthy and unhealthy relationships and develop a toolbox for setting personal boundaries and dealing with conflict as they examine their own relationships.

Healthy Relationships 2

This course is offered in the fall or spring for returning students. In this course, students will learn about human reproduction, gender, sexuality, and how to engage in responsible decision-making.

WORLD LANGUAGES DEPARTMENT

The World Language Department aims to provide all students with the opportunity to study a second language, regardless of their individual learning styles. Teachers foster an appreciation for other cultures and people, and prepare students for college study and their future roles in the world community.

Spanish I

Spanish I is an introductory class. As such, the focus of this class is gaining an understanding of the new language through the use of comprehensible input, one input at a time. This gradual approach enables the student to acquire and retain the language, allowing the student to speak and work towards fluency. Students practice their Spanish skills through stories that will help them learn the vocabulary needed to communicate in the Spanish-speaking world. Grammar topics are covered organically through the stories taught in class.

Spanish II

Spanish II is an interactive class designed to help move students from novice to intermediate levels of proficiency. Students acquire new vocabulary and continue to recycle old vocabulary to gain fluency. Grammar lessons are taught to reinforce present tense conjugations (regular, irregular) as well as looking at the preterite and imperfect tenses of both regular and irregular verbs within context. Each unit contains acquisition-driven lessons filled with compelling stories, rich reading, input-driven activities and cultural insights sure to pique student interest and inspire interpersonal communication. The stories and readings provide a tangible format for recycling vocabulary in a new and meaningful context. This comprehension-based class will help students develop communicative competence.

Spanish III

Spanish III curriculum is strategically designed to naturally recycle vocabulary and extend learning through new and meaningful contexts. This comprehension-based class helps students reach beyond novice and intermediate-low levels of proficiency. In addition to sophisticated points of grammar, students will conclude their study of the subjunctive mood, including its past tense in context. The target language is used at least 95 percent of the time in class and students will have out-of-class interactive exercises to help solidify their knowledge. Increased sophistication will be expected both in oral expression and writing. Students will continue to study Hispanic culture through readings, videos, and authentic sound recordings. Additionally, an introduction to literary analysis will begin in the second semester, and students will work to improve their writing by developing organization and analytical skills within the language. Cultural and contemporary issues in the Hispanic world will also be essential topics of our study.

Spanish IV Honors

The Spanish IV Honors course is designed to help students move from the intermediate level toward the advanced level of proficiency in interpersonal, presentational, and interpretive communication modes in Spanish. Essential questions drive instruction through the use of short novels. Students are regularly assessed and receive formative feedback to refine communication skills and develop deep understandings relating to the essential questions. Course goals, assessments, and a student portfolio are organized in three areas: interpersonal communication, written communication, and presentational skills. Extensive training in the organization and writing of compositions will be an integral part of this course.

Spanish V Honors: Spanish Language Literature

The Spanish Literature course seeks to expose students to a third-year, college-level introduction to peninsular and Latin American literature while developing a student's ability to comprehend and analyze literary works and develop academic writing skills. This course requires extensive reading and writing as well as the ability to speak at an advanced proficiency level and requires department or Director of Studies recommendation.

American Sign Language I

Students are introduced to the fundamentals of this visual-gestural language (receptive and expressive), as well as learn about the culture, community, and history of Deaf people. Students begin by acquiring vocabulary, which quickly moves into signing sentences, and ultimately, dialogues; in learning any language, conversational context is important. American Sign Language structures have both similarities and differences to English and uses grammar as an aide to understanding the language rather than the main focus. Students are assessed both receptively as a whole class and expressively with individual and group projects. Students will be using the text *Master ASL! Level 1* by Jason Zinza. Students will also have the opportunity to attend Deaf events outside of school and use other educational materials to enrich their understanding of Deaf culture and community.

American Sign Language II

In American Sign Language II, students will continue to learn language structures and acquire vocabulary, as well as explore the culture, community, and history of Deaf people. Conversational context will become more advanced and incorporate more complex language structures. Receptive and expressive language skills will continue to be assessed using a variety of methods including whole class, individual, and group projects. Students will be using the text, *Master ASL! Level 1* by Jason Zinza. Students will also have the opportunity to attend Deaf events outside of school and use other educational materials to enrich their understanding of Deaf culture and community.

American Sign Language III

ASL III is an advanced sign language course in which the students will use the skills that they have learned in their ASL I and II classes. Students will continue to learn basic concepts of communication and develop a more in-depth understanding of Deaf culture. In this level III course, students will learn how to sign and present a lyrical song of their choice as well as participate in an annual Poetry Sign and Share. Students will have the opportunity to attend Deaf events outside of school and use other educational materials to enrich their understanding of Deaf culture and community.

American Sign Language IV Honors

ASL IV is an advanced sign language course in which the students will use the skills that they have learned in their ASL I, II, and III classes. Students will continue to learn concepts of communication and develop a more in-depth understanding of Deaf culture. In this level IV course, students will sign and present a lyrical song of their choice as well as participate in an annual Poetry Sign and Share. Students will have the opportunity to attend Deaf events outside of school and use other educational materials to enrich their understanding of Deaf culture and community. ASL IV is a voice-off class; instruction will be offered using ASL only, taught with intensive conversational usage.

ART DEPARTMENT

STUDIO ARTS

Ceramics: Throwing on the Wheel

This course experiments with ways in which the potter's wheel might generate a variety of shapes and forms to be combined into cohesive works of art. Students also have the opportunity to learn a variety of hand-building techniques. Ongoing inspiration will derive from multiple sources, including the works of Chris Gustin and Peter Voulkos.

Ceramics: Big and Small

This course will explore how the parameters of scale impact a work of art. For inspiration, students will craft and combine forms to create unique finished clay works of dramatically varied sizes. In addition to learning to make use of the potter's wheel to generate component parts, students will study and emulate the works of various artists, including, but not limited to, those of contemporary ceramicists Peter Voulkos and Viola Frey.

Ceramics: Set The Table

Students will learn to create individual shapes and forms that work in harmony with one another to create a cohesive artistic display. One example of this is a table setting, another a sculpture display. Students will make use of the potter's wheel and of traditional hand-building skills as they investigate the way in which shapes and colors interact and explore ways to combine ideas around their chosen themes or intents.

Raku and Alternative Firing Techniques

This Ceramics course will explore different types of low-firing techniques, such as raku, saggar, pit fires, and more. Students will learn different wheel throwing and hand-building techniques and will be able to manipulate the surface of a form to give it a true uniqueness.

Metalsmithing Fundamentals

Students will engage with metals and jewelry-making through fundamental projects and skill-building. This class will help students to make projects step-by-step and build confidence in a room with challenging tools and materials. By the end of the class, students will have created at least three finished and polished projects that they will be proud of.

The Art of Metalsmithing

This class focuses more on the in-depth analysis of sculptural metalsmithing. Jumping right into the safety and basics of creating with such a medium, students will be challenged with visually designing and implementing methods to create a personal project. Three projects will be introduced at the beginning of the course and students will individually choose which to

focus on. While this course is individually tailored, fundamental vocabulary, historical understanding, and demonstrations will lead the classroom community to success.

Becoming Your Best Art Self

A general studio art class focused on fundamentals and building up art skills. This course will address basic art and design skills in drawing and composition, principles of two-dimensional, and figure drawing. This course is specifically designed for students interested in exploring their creativity and developing foundational skills in art and design.

Introduction To Printmaking

Students will be introduced to the expansive world of printmaking in this course. Through mostly hands-on and interactive, this course will be supplemented with art history and contemporary artist discussions. With these conversations, we will open up topics such as how art is politicized, the westernization of the medium, and how mass-media was shifted by printmaking. Students will have the opportunity to experiment with multiple forms of printmaking: linocut, woodcut, and monoprint while participating in perspective-shifting discourse.

Architecture

In this course, we will be looking at the historical and cultural importance of architecture while relating this with the technical understanding of the practice. Students will identify geometric shapes within an environment, and then learn how to construct these shapes in both two-dimensional and three-dimensional forms. With this foundation, students will then connect their aforementioned understanding of the cultural importance of architecture into a culminating project.

ART HISTORY

Introduction to Art History

This course will introduce students to a variety of artists and pieces of art that have established themselves as fundamental moments in art history. The course will take students through centuries of art, starting with renaissance movements and going all the way to contemporary movements. Each student will present a short presentation about their favorite piece of art or artist at the end of the course by way of recreating a piece of art, creating a PowerPoint, or another creative outlet.

CULINARY ARTS

Culinary Education 101

The Edible/Culinary Education 101 course will focus on the overall study of Food and how our everyday choices of what we put onto our plates affect the overall food system. This course hopes to make you knowledgeable and empower you to take action in transforming the food system to become truly delicious and sustainable. We will spend a majority of our classes discussing our modern-day food system, how we got here and where we are headed. The course will be able to reinforce what we learn in theory through trips to farms and hands-on learning of basic culinary skills inside the Lion's Den Bistro kitchen. The course is modeled from the books by Michael Pollan, Chef Dan Barber with the Stone Barns Center for Agriculture, and U.C Berkeley Edible Education 101, created by Alice Waters.

PHOTOGRAPHY

Digital Photography: Special Effects with Adobe Photoshop

As they learn how to work with Adobe Photoshop, students explore ways in which they might utilize the program to create surrealist images. Students create portfolios of works that reflect their own explorations into the realm of surrealism, an art form that traditionally, by definition, derives inspiration from dreamlike imagery and fantasy.

Photographic Portraiture: Human Connection

This course will explore different styles of portraiture from studio to environmental. We will learn how depth of field, image composition, and distance to the subject can play important roles in the final portrait. Students will understand how, as photographers, they can visually describe a subject through a portrait. We will study work by photographers Annie Leibovitz, Yousuf Karsh, and Matika Wilbur.

Photography: What's your Point?

Students will explore how perspective impacts an image's message by producing a series of images taken from extreme points-of-view. They will also learn to make use of a full darkroom and manual 35 mm camera. In addition to taking and producing images in the darkroom, students will study a series of photographers for ongoing inspiration.

Photography Processes from Digital to Alternative

This course will explore a few alternative ways of producing a photographic print. Students will capture digital photographs, edit them on the computer in Adobe Photoshop, print digital negatives and/or positives, and then print their images using cyanotype solutions and plant juice such as spinach. We will combine some traditional and digital photographic processes to

create one-of-a-kind prints. We will study work by photographers Binh Dahn, Wendi Schneider, and Anna Atkins.

Introduction to Digital Photography - Camera and Processing Basics

In this course, students will learn basic camera functions and how to capture a variety of different styles of photography from using those functions. This will allow for more creativity in their work. Other topics covered will be image composition, depth of field, shutter speed, an introduction to different types of photography, and basic image editing on the computer using Adobe Photoshop. *Students are encouraged to take both courses in sequential order, to build photography skills.*

Digital Photography - Beyond the Basics

Prerequisite: Introduction to Digital Photography.

This course will expand on all techniques and skills learned in Introduction to Digital Photography. Students will decipher when and why to use certain settings on their cameras. They will further develop their photographic vision by planning projects, creating an efficient workflow, advanced editing techniques in Adobe Photoshop, portfolio building, and photographic visual storytelling.

Developing Your Photographic Eye

In this course, students will study their subjects with their photographic eye. They will explore different styles of photography to capture their subjects in the way they want by using the camera on manual mode. This will allow students to "see" their subject the way they want it photographed, rather than the way the camera would take it on automatic. Emphasis will be placed on developing a body of work the student is passionate about.

VIDEO, FILM, AND JOURNALISM

Journalism: Writing for "The Roar"

Students will pitch, research, and write one article per week for the school's regular student publication, *The Roar*. The goal is to have the publication continue throughout the year, with the revolving class of students being the contributors. Each article students write will have an investigative component; meaning they will have to include some kind of primary source, whether it's a media resource or an interview. Students will also contribute to the publication's overall mission, which means developing promotional material, executing a distribution campaign, and collaborating on different design and formatting elements.

Note: This course may be taken as an Arts or an English credit.

Podcasting

Students will develop, plan, and produce three episodes of an original podcast. Based on the number of students, they'll be either paired up or put into groups of three. The groups will then agree upon a subject, and then research the topic to build and substantiate planned conversations. They'll then learn how to use audio and video equipment and editing software to record themselves, edit the recordings and distribute them to the student body. They'll also study distribution and promotion methods to do their best to advertise their program. As part of their research, students will listen to and dissect various episodes of other podcasts to better understand the format.

Music Video Production

Students will develop, plan, and produce an original music video. They'll either produce an original song, or select one that they have clearance to use (either made by a friend, or found through a legitimate free-to-use resource). They'll research music videos they like, examining and breaking down what techniques and styles they employ to visually represent the music. They'll then see the production all the way through, from pre-visualizing the shots to shooting the footage to editing and releasing the final product. Students will also learn how to promote and distribute their work as if they were trying to advertise an actual artist (and maybe they will be!).

Screenwriting

Students will conceive, develop, and write an original, 25-30 page screenplay. The first part of the class will cover basic storytelling paradigms and then move into the popular story structures for screenplays and the specifics of screenplay formatting. Students will create their own stories, complete with original characters and theme-motivated plotting. They'll write their scripts, and then share them with the class during group "table reads." There will also be one or two assigned movies to watch, for which they'll study the screenplay and examine how it was translated into film.

Documentary Production

Students will develop and produce an original short documentary on a member of the Forman community. They will choose a subject with a particular point of interest for the documentary to focus on. Students will perform research before conducting an interview with the subject and then shoot and edit all necessary footage. This includes the interview, as well as any B-roll or additional footage that would be needed. Once completed, students will distribute and share their documentaries with the community. Students will also study professional documentaries to study the format and improve their own projects.

Mini-Movies

Mini-Movies provided students with a series of weekly filmmaking prompts to help develop their ability to think creatively and work under a deadline. Students will get first-hand experience in just how accessible filmmaking has become, by using any filming or editing resource available to them to complete the challenges. Students will be given some prompts that will include a style, (such as silent film, music video, horror film, news broadcast and infomercial) along with random objects, words, locations, and phrases that somehow need to appear in the mini-movie. Students will have class time to prepare, film, and edit their projects.

PAINTING AND DRAWING**Drawing through Observation**

This course will explore basic drawing skills such as shading, perspective, cross-hatching, etc. Students will use observation to draw basic shapes of objects, landscapes, and buildings. Emphasis will be spent on drawing the way we see things from a precise replica to a creative interpretation. We will study work by artists Michelangelo, Pablo Picasso, and Dana Zaltzman.

Multiple Mediums: Drawing, Painting, and Photography

This course will combine parts of our own photography, drawing, and painting into a finished artwork. We will explore spatial relations, how we can blend three mediums into one work and whether it results in a more impactful finished piece. Keeping all three mediums on the same 2D surface, students will decide which part of the photograph they will keep as a photograph and which part they will create into drawing and painting. We will study work by artists Ben Heine, Mary Iverson, and Aliza Razell.

Beyond the Sky: Creating Our Own Universe

This course will allow our imaginations to run wild by using elements of art to create our own version of outer space. Students will look beyond current images of the night sky and create their own version of stars, planets, comets, etc. Emphasis will be placed on abstract painting and drawing to create depth within the finished piece. We will study work by artists Vincent van Gogh, Georgia O'Keefe, and Frederic Edwin Church.

THEATRE AND DRAMATIC ARTS

The Art of the One-Act Play

Through readings, discussions, and rehearsals of One-Act Plays students will explore foundation acting skills. Students will engage in group work, memorization, and public presentation as they work toward a common goal of a course-end performance of their one-act. Through this course, the students will learn how to work cooperatively towards a common goal.

The Art of the Monologue

This course is designed as an intensive character study through the use of monologues as a means of storytelling. The class will read different monologues, analyze text, and talk about how they would develop the character portrayed in the monologue. Ultimately, they will choose a monologue, memorize it, develop a character, and present the monologue at the end of the class. There will also be an option for the student to write their own monologue to perform for their final presentation.

Acting 1: Scene Study

This course is designed to provide an introduction to the basics of stage acting. Through the use of scenes from plays, Students will gain basic skills in acting, analyzing, and a working vocabulary of theatre terms. Students will develop an understanding of, and appreciation for, the craft of acting and the art of theatre.

Advanced Acting: Scene Study

Prerequisite: Acting 1: Scene Study

This course will build off the skills learned in Acting I. Through the use of scenes from plays, students will begin to explore the acting methods of Stanislavsky, Meisner, and Strasberg. It will emphasize the actor's personal input into the process of creating a role.

Improvisation

In this course, we will explore the art of Improvisation through the use of a variety of theatre games and exercises. We will watch shows such as 'Whose Line Is It Anyway', 'Second City', and 'What Would You Do' and use them as guides for creating our own improv scenes and invisible theatre projects. This course helps to build skills surrounding listening, public speaking, group interaction, and creative expression.

Theatre Production and Design

This class will explore the design and production aspects of putting on a show from the initial reading through opening night; specifically set and lighting design. We will look at popular Broadway shows and their design processes. Students will create their own set design for a

short one-act play, as well as get hands-on experience by working on the sets for the Forman theatre productions. This course will help students gain a better understanding of how designers work creatively with the director to come up with a design that is both practical for the actors and also expresses the vision of the director.

Psychology and Acting: A Character Study

“What’s my motivation?” A common, and cliché, sentiment asked by actors everywhere! In this course, we will begin to explore how psychology connects to the craft of acting in regard to understanding a character’s journey throughout a play or story. The course will serve to begin to bridge the gap between playing a role and truly understanding character.

The Art of Conversation

The art of conversation: a disguise for public speaking! Students will practice public speaking through a series of activities that involve debate, discussion, recitation, and presentation. We will use conversation starter cards, current events from society, arts and entertainment, and sports as the basis for our daily activities. Some projects will include creating a public service announcement, delivering a newscast, and reciting a dramatic reading. This course will help students strengthen important conversational skills such as, projection, expression, eye contact, listening, and responding.

Note: This course may be taken as an Arts or an English credit.

MUSIC

Private Music Instruction

Students may begin or advance their vocal and/or instrumental studies through private lessons while at Forman School. Lessons take place outside of the academic day and have an additional cost that is billed to the family, so parent permission is required. Please contact Mr. Cattey directly at jerrod.cattey@formanschool.org for more information and for scheduling.

Note: Private music instruction does not earn academic credit at Forman. Lessons may be delivered virtually depending on health-related restrictions in place at school.

COURSES FOR STUDENTS WITH NO MUSICAL EXPERIENCE

Electronic Music-Making with Software Instruments

Open to All Levels

This course is open to any student and will be of special interest to those interested in how contemporary music is created electronically. We will explore music-making possibilities within Logic Pro X, to create sessions, access loops, and adjust parameters. Students will design their own drum machines and synthesizers in order to make unique beats and

compositions. One of the major projects will cover the basics of sampling, a technique that is widely used and has been crucial to Hip-Hop since its inception. The individualized nature of the class will allow students to create music that matches their personal interest.

Rhythm Workshop

Open to All Levels

This class is designed for students with no prior experience but welcomes students currently studying either piano, drums, or guitar who wish to expand their musical experience to new instruments. The rhythm section is at the core of just about every modern ensemble and this class will examine the role of these instruments in music. Students will spend one week with each instrument and learn basic patterns, riffs, chord progressions, grooves, and techniques with the potential to form a small band at the end of the class.

COURSES FOR STUDENTS WITH PRIOR MUSICAL EXPERIENCE

Great American Songbook

This is a class open to vocalists of all abilities and a limited number of advanced instrumentalists. Students will expand their sense of melody and harmony while studying music of the greatest American composers and lyricists of all time. According to the Great American Songbook Foundation, the *Great American Songbook* is the canon of the most important and influential American popular songs and jazz standards from the early 20th century that have stood the test of time in their life and legacy. Often referred to as "American Standards," the songs published during the Golden Age of this genre include those popular and enduring tunes from the 1920s to the 1950s that were created for Broadway theatre, musical theatre, and Hollywood musical film. Because of their significance, this class is perfect for those students interested in Musical Theater, Jazz, and Composition.

Pairing Food and Music

This class is open to instrumentalists and cooking enthusiasts of all levels. The musicians will prepare a variety of repertoire and take a deeper look at the historical, geographical, and musical elements involved in order to pair appropriately with food. And conversely, we will take a look at some food favorites considering their historical, geographical, and ingredients to pair appropriately with music. Members of the class will build a setlist to perform and menu to prepare at a culminating event. This cross-curricular study will be a great fit for musicians, and any student interested in the elements of food preparation, history and cultural significance.

Audio Recording

This course will focus on the audio engineering side of music production. Students will learn to build sessions using Pro Tools, the industry standard for audio recording. The hands-on

recording lab will give students a detailed understanding of analog and digital connections, microphone types and placement for recording a variety of instruments, and basic mixing techniques. This class is open to any student interested in the technical side of music. Musicians who take this course will have their performing talents utilized for recording, though the performance aspect will not be the primary emphasis. The outcome will be a student-engineered recording and participation in a live, music event where they will set up and run the digital soundboard in the Student Center.

Group Harmony and Choral Technique

Open to Vocalists - All Grades and Levels

While we typically remember the melody of our favorite songs, the harmony is what really makes them special. This class will give singers the opportunity to participate in choral singing in a variety of genres with the goal of one performance at the end of the class. Vocal health, technique, and warmups will be covered daily and students will implement these routines into individual practice sessions outside of class. As a group, in addition to selected repertoire, we will cover common progressions in major and minor keys and all students will gain experience singing bass, inner, and melody parts in choral exercises. In addition to working toward the short-term performance goals, singers will gain confidence and stronger ears and musical fluency through the study of vocal harmony.

Open Mic Performance Workshop

Open to All Grades and Levels

This class will prepare students for solo and small group performances at an Open Mic event at the end of the mod. The course will cover selecting, rehearsing, and arranging repertoire dependent on skill level. There will also be independent work time where students may work on writing their own music for these events. Additionally, the class will cover basic microphone technique as well as care and maintenance of instruments and sound gear. Addressing an audience, stage presence, and basic public speaking skills will be addressed in the course as well. Students can expect to participate in activities with the whole class, in small groups, and independently.

Jazz 1959-1964

Intermediate to Advanced Levels

Many consider that February 3rd, 1959 was the day the music died. Clearly, they weren't that hip because the next five years marked an incredible time for America's original art form, Jazz. The Post-Bop era was responsible for landmark recordings from John Coltrane, Sonny Rollins, Bill Evans, Herbie Hancock, and Art Blakey to name a few. Students can expect to learn this amazing music and its history primarily through listening and performance. The course will conclude with a performance, and instrumentalists and vocalists at intermediate through advanced levels are encouraged to participate. Each individual will have unique outcomes

including a deeper understanding of Jazz styles, instrumentation, harmony, phrasing, and rhythm.

Jazz Guitar Ensemble

Intermediate to Advanced Levels

This course is designed for students with prior knowledge of guitar, interested in performing in a unique ensemble. Students should have basic technique, vocabulary of major, minor, and dominant chords in open and barre positions, and basic fretboard knowledge. The majority of class time will be spent learning and rehearsing material for a performance at the end of the mod. The concepts studied will be advanced chord progressions, improvisation, phrasing, and Jazz styles such as Swing, Bossa Nova, and Blues. Students will be expected to maintain a regular individual practice routine outside of class and are encouraged to enroll in the School's private music lesson program.

Motown Ensemble

Intermediate to Advanced Levels

This performing ensemble is for intermediate to advanced students who play any instrument. Students do not have to have a formal background but need to have learned parts or entire songs, chord progressions, beats, melodies and patterns. The Motown Ensemble will focus on African American artists' contributions to Detroit's Soul Record label, Motown Records. These pop records were made using the assembly-line approach witnessed by Berry Gordie while working in the Ford factory. The songwriters, studio musicians, and artists wrote and recorded in-house at Hitsville USA compiling more number one hits than the Beatles! In addition to performing Motown classics, students will have the opportunity to arrange a modern song arranged in a Motown style.

PROMETHEAN LAB

Formerly known as The Ingenuity Program, the Promethean Lab is a collaborative workshop and learning lab where students can gain practical experience with cutting-edge technologies and engage in innovative processes to design and build a wide variety of projects. The environment is flexible and active, allowing students to apply knowledge they have learned in many curricular areas - math, science, technology, and art - while pursuing their talents and interests. With a focus on creativity, critical thinking, and problem-solving, participation in the Promethean Lab, through classes or through self-designed independent studies, facilitates the development of 21st century skills and prepares students for their future endeavors.

In addition to introductory classes, the Promethean Lab offers students the opportunity to engage in an interest/talent-driven, student-developed course of study. Details follow below.

INTRODUCTORY COURSES

Open to all students.

Introduction to 3D Processes

This is an introductory course designed to familiarize students with the facilities, machines, and tools available in the makerspace. This class will teach foundational 3D processes and focus on strengthening students' material and tool vocabularies. Introduction to 3D Processes will equip students with the skills necessary to create more advanced work as they move into upper-level classes. The course will also dive deeply into shop safety and etiquette. Learning objectives include: to increase the comfort level of each student within an active makerspace; to introduce students to a vast range of creative practices and tools; to get students thinking about making applications within the art world and beyond.

Mold-Making

Prerequisite: Introduction to 3D Processes

This course focuses specifically on mold-making and related subject matter. Students will engage in a wide range of mold-making procedures, techniques, and materials. This class will be heavily process-oriented. It will give students an opportunity to practice organization within making, order of operations, time and material management among other important skills that relate to art-making and beyond. Learning objectives are: to learn mold-making processes and conceptual considerations; to create single part and multi-part molds; to expand material vocabularies by utilizing plastics, silicones, plaster, clay, and more.

Woodshop

Prerequisite: Introduction to 3D Processes

The woodshop course will focus on teaching students woodworking techniques and skills. It will increase students' comfort level on advanced woodworking tools and machines. The class will emphasize process-oriented making to build structures out of wood. Course objectives: to increase students' woodworking material vocabularies; to increase student comfort level in woodshop; to develop foundational skills in woodworking and building processes.

Metal Fabrication

Prerequisite: Introduction to 3D Processes

Metal Fabrication is an introductory course where students learn how to manipulate metal using a variety of techniques such as welding, plasma cutting, grinding, cutting, and bending. Students will engage in a wide range of metal processes and techniques in order to build comfort in the metal shop and expand their material vocabularies. The class will have an emphasis on welding processes and building structures through welding. Students will create both functional and non-functional projects using metal. Emphasis will be placed on originality, individual concept, design, and craftsmanship. Learning objectives are: to familiarize students with metal fabrication practices and welding, to increase student comfort level in the metal shop, to begin building structures out of metal, to lay a foundation for the possibilities and applications of metal fabrication within an arts practice and beyond.

Sculpture and Design

Prerequisite: Introduction to 3D Processes

In Sculpture and Design, students will explore different sculpture techniques using metal, wood, plaster, and a variety of other materials. They will learn to manipulate the material using different sculpture tools and techniques. Emphasis will be placed on originality, individual concept, design, and craftsmanship. Students will also learn about contemporary and historical artists within the mediums and analyze and critique all different kinds of work.

CAD to CNC: An Engineering Process

CAD to CNC: An Engineering Process is a course that introduces the basics of CAD (Computer-Aided Design) and CNC (Computer Numerical Control). Students will explore CAD computer programs such as Fusion 360 and VCarve Pro by learning how to properly sketch and model 3D parts. When projects are completed using the software, students will then use a ShopBot PSRalpha CNC machine to create their project using a variety of materials such as wood, plastic, and/or metal. Students will learn how to create toolpaths and understand the process of cutting with simple geometry using a CNC machine, with emphasis on the principles of design.

PROMETHEAN LAB: INDEPENDENT STUDY

Offered consecutively in Terms 4, 5, and 6 only. Students applying for an independent study must have completed at least one Introductory Course. Students will earn one full credit.

Open to Grades 11, 12, PG only.

Independent Study

The independent study course provides a space where students can accomplish projects, work, and ideas that fall outside of a specific class description. Students choose an interest, talent, or passion to pursue and develop a focused project. The independent study includes and transcends foundational lessons taught in previous classes and allows students to build upon these skills to reflect their own unique needs and ideas. Students engage in the drafting, editing, and troubleshooting of ideas before production, to cultivate the importance of planning before execution. Regular meetings with the Promethean Lab faculty will provide support for each student. These meetings will help to focus a student's vision, help a student stay on track in order to accomplish project goals on time, and serve as a sounding board for a student's ideas. Student work takes place in the state-of-the-art fabrication lab, complete with 3D printer, laser cutter, milling machines, plasma cutter, virtual reality gear, and more.

Learning objectives of an independent study include: to learn and make outside the parameters of a specific class; to build the planning and consideration processes before production on a work; to engage with materials and ideas that may be new and specific to individual wants, needs, or ideas.

A student's final project may take various shapes; a portfolio that can be referenced to support college applications or summer internships; a business plan or widget for a niche market; exploration of a new medium in the arts, such as immersive 3D art or film. Each student is expected to create a website to chronicle the Promethean Lab experience which is updated weekly to illustrate the current state of the project.

To apply for this program, an application form must be completed. Applications will be available from the Academic Office beginning in October 2021.

THINKING & WRITING DEPARTMENT

All new 9th, 10th, and 11th grade students take Thinking & Writing I, II & III over the course of the year in Thinking and Writing, equivalent to one credit. New PGs will take both Writing Electives (Applied Writing and Research Writing). Returning students are welcome to take elective courses also.

REQUIRED COURSES FOR NEW 9th, 10th, and 11th GRADE STUDENTS

T&W I: Strategies & Structures

Strategies & Structures is the first module of the year-long Thinking and Writing graduation requirement, introducing new students to essential strategies of effective written expression in academic contexts, with a focus on the process approach to paragraph development and essay structural organization. In addition to strategically plan, draft, revise, and edit, students build a strong grammar foundation and follow MLA format for academic writing through interactive instruction and guided practice to facilitate differentiated learning. Informed by assessment rubrics aligned with national standards, a student's writing samples-- including drafts and revisions--are compiled in a portfolio for the purpose of tracking progress and practicing reflective learning.

T&W II: Modes & Mechanics

The second module of the year-long Thinking and Writing graduation requirement for new students, Modes & Mechanics aims to construct effective multi-paragraph essay structure in common academic writing modes: descriptive, expository, literary essays. This course is designed to build critical thinking skills in managing an academic writing task, with equal focus on macro-level composition skills, such as thought organization and transitions, as well as micro-level skills, such as sentence structures and punctuation. Utilizing assistive technology and online resources, students learn to create mind maps, formulate a thesis statement, and follow language conventions in essay composition.

T&W III: Voice & Choice

The third module of the year-long Thinking and Writing graduation requirement for new students, **Voice & Word Choice** is designed to expand students' repertoire of academic writing skills, with the focus on varying word choice, exploring literary devices and styles as well as developing research writing skills that involve finding, evaluating, and synthesizing relevant information. Differentiated instruction and feedback guides students through the writing process to foster independence in purpose-driven written expression--including persuasive writing--by consciously engaging in substantive revision, which requires critical thinking and decision-making in the use of word precision and textual evidence while accurately documenting and citing in MLA format.

ELECTIVE COURSES

Both Writing Electives are required for PGs. Returning students may elect to enroll in one or both courses as well.

Applied Writing

Applied Writing, a one-term elective for returning juniors and seniors, aims to provide scaffolded cross-curriculum writing support for academic subjects as well as to meet student-centered writing needs in the areas of note-taking, applications, personal statements, supplemental writing, and formal correspondence, with special emphasis on clarity, word precision, sentence concision, and audience. Through differentiated and feedback-based instruction, students are guided to apply essential writing strategies taught in a Thinking and Writing class, to build discipline-specific vocabulary, to resolve individual issues in the standard writing process, and to exercise independence and foster confidence in managing writing tasks

Research Writing

Research Writing, a one-term elective for returning students and PGs, aims to provide detailed instructions on managing the steps of expository and persuasive writing tasks. Through feedback-based individual coaching, students are guided to apply the writing strategies taught in a Thinking and Writing class to resolve individual issues in the standard writing process, exercise independence, and foster confidence in managing writing tasks. The process encompasses selecting an appropriate topic, planning a detailed outline, finding source material, synthesizing information through organized notes, maintaining appropriate academic tone and language, and documenting sources. The primary vehicles for learning in this class include research projects assigned by content teachers. Through differentiated instruction and guided individual practice, students learn to apply helpful tips for evidence-based writing to demonstrate proficiency outlined in assessment rubrics aligned with national standards

COGNITION & LEARNING DEPARTMENT

Forman School's foundational mission is to be a center for scientific and practical studies of the best ways to teach students with learning differences. The Cognition & Learning Department is a natural extension of that mission. All first-year students are required to take a course within the department. Subsequent to their first in the department, a student's course placement is determined on an individual basis and in consultation with the student's previous C & L teacher as well as other faculty that worked closely with the student in the past. For students, the department assigns the following courses based on their unique learning profiles:

Reading Principles

Reading Principles is designed to help students develop basic reading and word attack skills using an individualized, multi-sensory, phonetic, and sequential approach. Course work in Reading Principles includes phonemic awareness, decoding, vocabulary and morphology, grammar and usage, comprehension, and spelling. The course is taught in a small-group setting with a reading specialist. Students working on decoding and phonemic awareness skills have available to them direct instruction based on the principles of the Orton-Gillingham approach as well as the Wilson Reading System, the Lindamood Phoneme Sequencing Program, and other multisensory strategies. Additionally, students will delve into assistive technology options and resources throughout their time in this course.

Reading Skills and Development

This course is designed to help students develop increased reading fluency and comprehension to improve reading for academic coursework. Students focus on the active reading process, including the integration of paraphrasing, summarizing and interacting with text. Students read and peruse a variety of academic materials relevant to their individual reading level. This course further develops vocabulary, word attack skills, spelling, and specific comprehension and encoding. Particular emphasis is placed on the multi-sensory development of decoding skills through the review of linguistic structures (phonetic and meaning-based patterns in words of Anglo-Saxon and Latin origins, along with basic grammar).

To put learned skills and strategies into practice, students will explore character development in a literary context by reading multiple level appropriate pieces of literature, including short stories and novels. Additionally, students will also engage in annotations and in-class discussions to help monitor their comprehension. One of the primary goals for students in this course is to increase their reading proficiency by using a specific set of thinking skills to build a deep understanding of the texts that they read. They will apply those skills in the pre-reading, reading, and post-reading phases.

Reading with a Critical Eye

This course is designed to assist students as they further develop reading fluency and comprehension while taking advanced academic coursework. In this course, students will delve into critical reading in a scholarly context and manner. Specific focus will be placed on identifying a text or author's viewpoints, arguments, evidence, potential biases, and conclusions. Students gain skills and strategies centered on evaluating the credibility and validity of literature by evaluating and weighing scholarly articles and periodicals from the social sciences. Ultimately, the goal is to have students evaluate text for more than simply *what* it says, but rather *how* and *why* it says it. The underlying skills and strategies that permeate throughout the course include morpheme analysis, semantic mapping, utilization and implementation of active reading strategies, and vocabulary development. Lastly, the skills and strategies presented in this course are meant to encourage deeper and in-depth reflective writing about specific texts and literary pieces.

Empowered Brain: Cultivating Self-Awareness in Learning

This course is intended to provide students with an introduction to the knowledge, skills, and strategies needed to successfully navigate the academic realm of adolescence and beyond. The goal-setting process, metacognition, personal introspection, study strategies, organizational skills, listening and notetaking, and time management are all explored. The course is designed on the foundation of providing students with the tools necessary for getting to truly know themselves as learners and feel empowered to navigate their own learning as a result. The primary goal of this course is to show learners that they can be in control of how they study, how they organize their work, and how they reflect upon it. Students will understand that learning simply does not “happen,” but is rather an “active” process. Additionally, understanding and reflecting on the ideas of learning independence, dependence, and interdependence and how they fit into the academic realm of Forman will be discussed. Self-awareness serves students for life, and this course serves as a catalyst for having students be introspective with regard to their learning strengths and challenges. This course is taken over three terms, with each term having a specific area of focus that underpins much of the content.

During the first stages of this course, major emphasis is placed on having students understand that they can “drive their brains,” and become self-directed learners. Students’ self-concepts and beliefs about who and what they want to become in the future will be delved into and explored. By completing their own personal goal assessments, students will learn how they can direct the kind of goals that they establish and then create action plans for reaching those goals. Students will discover their learning strengths, interests, and challenges through work with the *Possible Selves* curriculum developed by the University of Kansas Center for Research on Learning. Students will become aware of how they best learn and communicate. Through the process of understanding oneself as a learner, students will explore different ways to approach

a problem and learn how to gather information in order to make informed decisions and choices.

As the course progresses, students will be introduced to the basics of brain science in order to understand that all the parts of the brain work together, but each part has its own special properties. Students will delve into adolescent brain development. Understanding how the brain works, particularly how it grows and evolves during the adolescent years, underpins much of the inquiry during the middle stages of this course. Students will delve into how they can use the science of learning to inform their academic habits of mind, specifically in the realm of study skills and strategies. Students will learn research-based strategies for planning when to study, developing an understanding of the studying process, and reinforcing knowledge. Strategies such as spaced practicing, interleaving, elaboration, dual coding, and retrieval practices will all be taught in order to help students prepare for tests and quizzes in content area classes. Students will also learn multiple strategies on how to prepare for and take objective style tests as well as essay style tests, in order to understand how to plan their time during a test, reduce anxiety and create a proper essay for various assessments. The goal of this section of the course is to have students understand what it truly takes to learn new information as well as key strategies and habits they can employ to find success.

By the end of the course, students will have the tools to advocate for themselves academically and socially. The goal is that students leave this course with an in-depth understanding of both themselves and their learning profiles. To that extent, the final stages of this course ask students to focus on a specific research topic over a multi-week period. Ultimately, the research that the students conduct will be framed around the creation of a culminating project that responds to an essential question or theme related to their specific topic. Using a digital delivery platform, diverse technology tools, and guided portfolio assessments students will be asked to create a formal presentation to peers and other faculty members. The metacognitive process will be integrated into a design thinking framework from start to finish. Students ask questions, choose research strategies, and actively monitor their progress by engaging in self-reflection. By working on a multi-week project students learn how to manage their time effectively, prioritize tasks, break down large tasks into manageable parts, and organize their thoughts and ideas. At the conclusion of the course, students will engage in a self-evaluative process whereby they are asked to be introspective and analytical about their work throughout the course. Students will leave with the ability to determine which skills and strategies work best for them and transfer these skills and strategies to their content classes.

Brain Matters: The Teenage Brain and Executive Functions

In this course, students will gain insight into how executive functions can impact their overall experience as lifelong learners. Additionally, students will delve into the neurocognitive networks of the executive functions. The goal of this course will be for students to prepare and

build a greater sense of ownership over the ways in which they can take control of EF challenges as they transition to college and a much less structured environment. In order to better understand themselves as learners, students will delve into the neuroscience of adolescence with a particular focus on how the brain works; specifically how it grows and evolves during the adolescent years.

Brain plasticity, neurocognitive development, and motivational systems will be explored. Questions such as: what is learning and how does it work in a neurological sense will underpin inquiry in this course. Students will explore how they can use the science of learning to inform their academic habits of mind. Students will understand what it truly takes to learn new information as well as key strategies and habits they can employ to find success. The intention of the topics and research that will be covered in this course is for the purpose of students building a greater sense of agency. Students will delve into and discuss current scholarly articles surrounding research on neurodevelopment. As the course progresses, students will examine and discuss the policy implications of neuroscience research on young people today.

By emphasizing the neurodevelopmental changes that occur during adolescence, students will gain a holistic understanding of this developmental window. Understanding changes in teens' brains and the impact that it has on one's cognitive, personal, and social development is one of the primary goals of the course. By better understanding themselves as learners and the way in which their brains process information, students will gain skills and strategies to prepare them for the transition to college. Course time will also include one-on-one executive function coaching.

Executive Function Coaching is an action-oriented partnership between the student and coach that serves as a collaborative learning "lab" and a catalyst for sustained cognitive changes and performance enhancement. The student develops an understanding of self, their strengths, and EF difficulties. Coach and student work together setting short & long-term goals, creating action steps, anticipating roadblocks, and designing approaches to manage performance-related challenges using the student's current course work. Coaching provides a non-judgemental space for students to explore EF challenges and learn skills to better navigate areas that have long since been challenging such as getting started and finishing tasks, breaking down a long-term project, how best to retain information, regulate emotions, plan, and prioritize. Coaching provides structure and support as students gain a deeper understanding of themselves and develop personalized approaches. A critical component of coaching is accountability, a measuring tool for action, and support as a student moves forward with a plan outside of the session. Students who are willing to fully engage in coaching experience greater autonomy and increased self-determination.

Number Fluency

This is a Pass/Fail, one-term course, designed to teach students how to think like mathematicians when using numbers instead of relying on older strategies such as timetables and rote memorization. As students move into more challenging mathematics it becomes more important to be able to do simpler work quickly and efficiently. Students will learn the same techniques but will apply them to different subject areas (ex: pre-algebra, algebra and geometry) where their core math class lies. By the end of the unit, students will be able to do computations in their selected areas without the use of calculators or scrap paper, giving them deeper insight into mathematics.

POST-SECONDARY PLANNING

College Counseling Department

All students in grades 11 and 12 take two terms of the Post-Secondary Planning course, which is designed to support all facets of decision-making and preparation for students' post-secondary future. This course is graded on a Pass/Fail basis and receives .5 credit. Juniors take this two-term course in the spring semester. Seniors take this two-term course in the fall semester.

Post-Secondary Planning I / Grade 11 Juniors

Spring Semester, two terms

This course is designed to work in unison with the college counseling process and help guide our students in successfully determining their post-secondary future. The goal of this course is to help students make informed and knowledgeable decisions regarding their future educational and career choices, so they are better able to identify and articulate their personal needs and desires for their life after Forman. Students will be provided tools to gain a better understanding of themselves as learners and as individuals, while also building a foundation of skills to navigate their post-secondary planning process. Incorporated into this unique curriculum are inventories assessing personality traits, interests and careers, along with direct instruction on navigating the college application and research process.

Post-Secondary Planning II / Grade 12 Seniors

Fall Semester, two terms

This course is designed to work in unison with the College Counseling process and is an extension to the Post-Secondary Planning I course. In this course, students will receive support and guidance in all aspects of the college application process. Students will be given the opportunity to individualize their curriculum based on their specific application needs. Incorporated into this unique curriculum are the implementation of time management, self-advocacy, and organizational strategies that can be used at the post-secondary level.