

# Spring Curriculum Guide 2020-21 Semester Two

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## ENGLISH DEPARTMENT

To meet the English credit requirement students take four 3-week modular courses over the course of the year. If their schedule allows they may take more. Underclassmen electives are mixed grade level, 9th and 10th. The same is true of the upperclassmen courses, with mixed 11th, 12th and PG students. Returning students who receive the department recommendation of studying English at the Honors level will have more rigorous expectations to meet within their class. There are no separate Honors sections.

### UNDERCLASSMEN ENGLISH ELECTIVES (9/10)

#### **Alt America-Short Stories**

*Also available as an Honors level course*

This class focuses on reading short stories about characters who do not fit the majority norm of life in America. Stories that deal with the multicultural experience in America, the experience of the outsider, and the experience of those who are different from the expected will be read and discussed.

#### **The Art of Conversation**

Students will practice public speaking through a series of activities which involve debate, discussion, recitation, and presentation. We will use 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. The final project will be a speech that the student will write entitled "All About Me". This course will help students strengthen important conversational skills such as, projection, expression, eye contact, listening and responding.

*Note: This course can also be taken as an Arts credit.*

## **Creation Myths from Around the World**

### ***Also available as an Honors level course***

Almost every culture around the world has a story depicting how the Earth was created, how particular animals developed, and how people came into existence. This course will read creation myths from across the globe, make comparisons between the different stories, and have students create their own stories.

## **Exploration Through Children's Literature**

Children's Literature is a genre that provides readers with various lessons and information. Through various picture books, the students will learn and reflect on specific lessons and cultural situations from the stories. Picture books with similar messages will be analyzed and compared, based on how the authors describe similar situations in varying ways. This class will help students to become more aware of other cultural situations and create a deeper appreciation for children's literature and picture books. The students will create their own children's book with a deeper meaning or understanding of something in society. Some stories may include: *The Man Who Walked Between the Towers*, *Love* by Matt de la Peña, *Each Kindness* by Jacqueline Woodson and illustrated by E.B. Lewis, *Henry's Freedom Box* by Ellen Levine and illustrated by Kadir Nelson, *Same Same But Different* by Jenny Sue Kostecki-Shaw, *Sneetches* by Dr. Seuss, *The Sandwich Swap*, *So Much* by Trish Cooke, *Separate is Never Equal* by Sylvia Mendez and her family's fight for desegregation, *Not My Idea: A Book About Whiteness*, By Anastasia Higginbotham.

## **Food for Thought**

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. In this course, we will also investigate how the food industry has been changed in America. We will read and watch various sources examining the food industry and how this plays a role in our understanding of foods.

## **Getting to Know Shakespeare**

### ***Also available as an Honors level course***

How does William Shakespeare continue to impact our world today? How does Shakespeare continue to be relevant in modern society and how are these ideas important? Shakespeare continues to impact society even though he isn't present in our society today. This class examines how Shakespeare impacts our current society and his influential role. The ideas discussed in *Shakespeare Sonnets* are modern and continue to be relevant today. The students will write a culminating paper with examples analyzing how William Shakespeare is still modern and relevant in today's society.

## **Graphic Novels at War**

Graphic novels are more than just collections of comic books reprinted for resale in a handy omnibus. The graphic novel has developed into a genre of contemporary literature that allows the author to tell a concentrated story in relatively few words in conjunction with vivid images. One topic that graphic novels depict is the experience of soldiers at war. This class will read and analyze several graphic novels that portray the experiences of soldiers in wars throughout history. The class will explore texts that are attempting to be historically accurate in the stories they are telling, and the class will explore texts that are using a historical setting to create new fiction. Students will create their own short war/soldier's story graphic novel.

## **Importance of Memories**

### ***Also available as an Honors level course***

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 demonstrate their learning by writing their own polished memoir focusing on a specific memory and on the ideas and elements we discussed and analyzed in class. Short stories we may be reading are the Chimamanda Ngozi Adichie writings.

### **Journalism: Writing for “*The Roar*”**

Students will pitch, research, and write one article per week for the school’s regular student publication, *The Roar* (formerly known as *The Monthly 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 can also be taken either as an English or an Arts credit.*

### **Legends of King Arthur from the Middle Ages to Today**

This course will explore the traditional and modern legends of King Arthur and his companions and discover what universal themes there are in the myths that keep them relevant. Students 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 class 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.

### **Songs For The Soul**

During this course, students will closely examine the key factors that account for how music resonates with each of us - while perhaps differently, but ever so truly - down to our very core. After featuring one select TOP 10 list of songs, students will engage in an active exploration, collection, and critical treatment of various tunes that have shaped their individual journeys. While positively and regularly contributing to our daily discussions about the power of songs and their lyrics, class members will then identify, generate, and, most importantly, share their own personal TOP 10 list of Songs. Ultimately, this final course exercise will serve as not only a celebration of influential music and a mindful treatment of its profound impact on their lives, but also as a powerful reminder to keep an open mind to the power of ALL songs/lyrics from the past, present, and future.

## UPPERCLASSMEN ENGLISH ELECTIVES (11/12/PG)

### **The Art of Conversation**

Students will practice public speaking through a series of activities which involve debate, discussion, recitation, and presentation. We will use 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. The final project will be a speech that the student will write entitled “All About Me”. This course will help students strengthen important conversational skills such as, projection, expression, eye contact, listening and responding.

*Note: This course can also be taken as an Arts credit.*

### **A Brief History of Myth**

*Also available as an Honors level course*

This class will explore the evolution of mythology throughout time, beginning with the Paleolithic Age and ending with post-Islamic medieval cultures. 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.

Texts will include *A Short History of Myth* by Karen Armstrong, and articles about archaeology. *Note: this course is open to new and returning students who have not already taken the “World Mythology” course in 2019-2020.*

### **Coming Home: Stories About Vietnam Vets**

This course will take a look at the negative viewpoint of the Vietnam War and how returning soldiers were affected by their time “in country” and their reception upon returning to the US. The class will participate in various activities and assessments focused on these readings. Students will practice critical thinking skills, research and collaboration skills, and writing at a college level. Texts will include: *The Things They Carried* by Tim O’Brien; *Why We’re In Vietnam* by Stephen King.

### **The Growth/Role of the Poet/Artist in Romantic Literature**

*Also available as an Honors level course*

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) before moving to England for the middle of the class (Wordsworth, Shelley, and Keats), and then finally moving back to the end of the 19th Century in Germany (Nietzsche and Rilke). Emphasis will be put on short but dense poetic/philosophical readings, class discussions, and critical engagement and response to these ideas. Texts will include: Goethe, *The Sorrows of Young Werther*; Schiller, *Letters on Aesthetic Education*; Wordsworth, *Lucy poems*; Shelley, “A Defense of Poetry”; Keats, *Collected poems*; Nietzsche, sections of *The Birth of Tragedy* and later works; Rilke, *Letters to a Young Poet*.

### **The Hero's Journey**

#### ***Also available as an Honors level course***

Not open to students who took World Mythology or Fantasy Literature last year (2019-20). Students will learn to track the story of protagonists in most modern novels and films by using Joseph Campbell's "Monomyth Theory." We will explore how heroes have similar characteristics across culture and time. Students will practice critical thinking skills, research and collaboration skills, and writing at a college level. Texts will include *The Hero With a Thousand Faces* by Joseph Campbell.

### **International 20th Century Short Stories**

#### ***Also available as an Honors level course***

This course explores works by international short story authors working during the 20th Century, such as Italo Calvino, Jorge Louis Borges, and Clarice Lispector. The course will investigate how these authors absorbed, reinterpreted, and resisted the traditions of Western literature, and will grapple with their imaginative use of myth, philosophy, and science. Additional topics include discussions about experimental structure and narrative, race and colonialism, and gender and authorship in modern/postmodern literature. Texts will include: Borges, *Labyrinths*; Calvino, *Complete Cosmicomics*; Lispector, *Complete Stories*

### **Journalism: Writing for "The Roar"**

Students will pitch, research, and write one article per week for the school's regular student publication, *The Roar* (formerly known as *The Monthly 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.

### **Literature and Film: Dystopia**

This class will focus on the visual and plot aspects of dystopian stories and their film adaptations. Students will read three short novels/novellas and view the film based on said books. The class will participate in various activities and assessments focused on these readings. Students will practice critical thinking skills, research and collaboration skills, and writing at a college level. Texts will include *Fahrenheit 451* by Ray Bradbury; *Snowpiercer Vol 1* by Lob and Marchette; *Do Androids Dream of Electric Sheep?* by Philip K. Dick.

*Note: this course is open to students who have not already taken the "Dystopian Graphic Novels" course in Fall 2020.*

### **Myself & the Future**

Who are you? What defines your identity? How can you turn your life experiences into something positive for a future student to learn from? In this course, students are tasked with telling their own story; how did they get here, what struggles have they faced, what can they identify with, etc? Additionally, what wisdom have we acquired through our experiences that we can pass off to the next generation? This class will revolve around a module-long project in

which students will use a blend of traditional and contemporary technological teaching methods to effectively convey their stories.

### **Nature and Society**

What is the modern relationship between society and nature? What draws people to nature? This mod would follow Christopher McCandless' journey through "Into the Wild." Students would grapple with questions regarding his competence and morality and the modern world's connection (or lack thereof) to nature. Students would view the 2007 film in conjunction with reading the text and compare the two mediums.

### **Perspectives on Protest**

This course will explore various historical and current protests in the United States, specifically those aimed at fighting racial injustice and inequality. Topics will include the historical context of each movement, the stated goals of the movements, and the narratives pushed by opposition to each movement. Changing narratives on historical protests will be integrated into our study of current movements. Exploration of modern movements will also include a focus on the role of mass media in creating, bolstering, and stifling various narratives. Students will consider the negative impact of a dominant group trying to dictate a marginalized group's form of protest, as well as the tactics used to try to delegitimize a movement. The materials we use to explore these topics will include primary sources such as news articles, newspapers, interviews with protesters and movement leaders, and interviews with movement opponents.

### **Redefining America**

Did our Founding Fathers, with noble but privileged intentions, compromise the very essence of democracy in the USA from the start? Through a respectful study of select documents, essays, poetry, and lyrics from 1776 through to today, this class will work to understand, account for, and address the systemic failings of our imperfect political experiment that actively threatens to divide these United States of America here and now. For the final course project, students will create and share their portfolio, a compilation of analytical and creative writing inspired by select works prescribed for this. Students are also asked to incorporate apt, original photographs and/or artwork to convey their personal resolve and conviction to promote an American experience truly equitable and available for all.

*Note: This course may also be taken as a History credit.*

### **Wonder and Other Survival Skills**

#### ***Also available as an Honors level course***

Between the urgency of the problems facing our planet and the chaos of our own busy lives, it might seem naïve to place "cultivate wonder" at the top of a list of priorities. Yet that is exactly what the authors in this collection suggest: that wonder is necessary, that it might just be what saves us. Readers have long turned to *Orion Magazine* to be reminded of the things that really matter, to build their inner reserves, and to rekindle their sense of intimacy with the earth. The essays collected here are testaments to the power of beauty and the importance of humility - - and a deep belief, even amid darkness and uncertainty, in wonder's essential role in our lives.

## **Virginia Woolf: Gender, Sexuality, and Modernism**

### ***Also available as an Honors level course***

This course will explore the writings of Virginia Woolf and pay particular attention to her radical and groundbreaking work as a feminist and queer novelist. We will focus particularly on one of her less-read novels, *Orlando*, in order to deal with some of her more radical writings on gender fluidity, non-totalizing narrative, and feminist historiography. We will also read sections of her classic essay, *A Room of One's Own* in order to get a sense of her importance as a social critic and activist, as well as to gain a better understanding of her literary work in *Orlando*.

## **The Urban Experience**

How does one's environment impact the direction of one's life, in terms of the choices they make, and situations they must deal with, regardless of intent? The major ethical considerations for this course deal primarily with how we tell someone else's story - specifically when there are certain aspects? Texts include *The Short and Tragic Life of Robert Peace: A Brilliant Young Man Who Left Newark for the Ivy League*.

## **Maus I+II**

This mod explores the multigenerational impact of the Holocaust specifically, and trauma in general. Students would also have the opportunity to investigate the power of a medium (graphic novel vs. traditional text) and whether it adds or detracts from the story one is trying to tell.

*Note: This course is open to new and returning students who have not already taken the "Survivor's Stories" course in 19-20.*

## **HISTORY AND SOCIAL SCIENCES DEPARTMENT**

### **UNDERCLASSMEN (9/10)**

#### **9TH GRADE: GEOGRAPHY**

All 9th graders will take this series of 3-week modular courses that focus on different aspects and types of geography and area studies.

##### **Mechanical 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.

##### **The Places You'll Go: A Cultural Travel 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 they have never been to learn about a people you have never met. Pack your bags and let's go!

#### **10th GRADE: UNITED STATES (US) HISTORY**

All 10th graders who have not already earned a high school US History credit will take each of the following 3-week modular courses focused on different aspects of the history of the United States.

##### **American Symbolism**

The course will examine how symbols are created and which symbols are considered to be uniquely associated with the United States. Symbols to be examined include, but are not limited to, the flag, the dollar bill, the eagle, the Star Spangled Banner, Uncle Sam, etc. We will determine how the symbols came to be and why some exist to today, while others are not as prominent. Students will be asked to evaluate existing symbols and create their own symbols.

##### **Jefferson: The Man, the Myth, the Conundrum**

Thomas Jefferson is often considered one of the greatest of the Founding Fathers. His tombstone reads, "Author of the Declaration of American Independence, 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?

## UNDERCLASSMEN HISTORY/SOCIAL SCIENCE ELECTIVES (9/10)

### **The World's Fairs: Triumph or Disgrace?**

The first World's Fairs were meant to be an exhibition of all that modern life had to offer, but was everything as future-focused as it seemed? Who benefited from the fairs and who was harmed? Students will investigate the political, cultural, and economic motives behind the Fairs and draw conclusions from studying who was allowed to participate and who was not. In the culminating project for this course, students will be asked to decide whether the World's Fairs were a symbol of progress or of prejudice.

### **Witches and Wenches: Women in Early America (1610-1800)**

Starting with the arrival of the 'bride ship' in Jamestown, women were crucial to the founding of America. In this course we will be studying both how women found agency and political participation in Colonial America and their obstacles. By looking at events such as the Salem Witch Trials and the Boston Bread Riots in the early 1770s, we will weave a version of this country's founding that answers the question: How can a more inclusive picture of our history allow for an enriched understanding of our shared stories?

### **You are What You Wear: Fashion and Politics**

The first thing you see about someone is often what they are wearing. Clothes were a sign of status and often a sign of political affiliation. From different hairstyles in the English Civil War to the *sans-culottes* of the French Revolution, fashion has served as an identifier of both identity and community. This course will cover fashion from the 1600s all the way to the 1960s. In this course we will look at examples of how politics made the clothes and vice-versa. We will be answering the question: How is what you wear political?

## UPPERCLASSMEN ELECTIVES (11/12/PG)

### ECONOMICS AND FINANCE

#### **Capital and Personal Finance**

This course explores what steps one may take to ensure financial security, to set short and long term goals and understand how to pursue them. Students will reflect on spending habits and contextualize what that money can be used for in different circumstances. We will study the nature of capital and how the value of goods and services change depending on market conditions. The course centers on two projects - one on market research and the other on creating and adhering to a personal budget, tracking expenses and making intentional and informed decisions.

#### **Introduction to Microeconomics**

The course will examine the actions of individuals and firms as they attempt to allocate scarce resources in the attempt to earn profit. Topics to be studied include supply and demand, competition (perfect competition, monopoly, oligopoly, etc.), cost, revenue and profit. In addition to these topics, there will be an emphasis on reading the financial press and developing financial literacy. Students will learn the importance of mathematics in explaining rational economic decision-making processes involving equity, efficiency, productivity and profitability.

### **Introduction To Macroeconomics**

The course will examine the actions of nations as they attempt to allocate scarce resources in order to increase national productivity and improve the general welfare of their citizens. Topics to be studied: national productivity, monetary and fiscal policy. In addition to these topics, there will be an emphasis on reading the financial press. Students will read and comment on issues they have read and learned about, and complete a final project on a topic of their choice.

## **GEOGRAPHY, GLOBAL STUDIES AND INTERNATIONAL RELATIONS**

### **African Empires**

The richest man who ever lived ruled an empire in Northwest Africa 150 years before Columbus set sail from Spain. What resources and societal circumstances allowed him to amass such wealth? This course will explore the Ghana, Mali, and Songhai Empires and their interactions with outside societies. Students will gain an understanding of the flow of goods, ideas, and peoples across the seventh to sixteenth centuries and appreciate the contributions these empires made to history.

### **Fatal Inventions**

Are our law and medical systems affected by race-based practices? Do such reputable institutions reinforce racism? If so, can we uproot racism within these institutions? And how? The goal of this course is to think critically about what it means to tackle race at the foundational levels of society. In the quest to create a world free of racism, what are the implications to truly achieve it?

### **Global Peace-Keeping**

Can a global peace-keeping organization prevent all future wars? The international community has twice tried to put together a body to do just that in the ill-fated League of Nations and its longer-lasting successor, the United Nations. This course will explore the origins, aims, and structures of the League and the UN. Students will study successes and failures of both organizations and consider the role of the United Nations in the current day. The question of whether war can ever be avoided via international litigation will be revisited frequently throughout the course.

### **Japan's Rise to Power**

How did Japan transition from a feudal, isolated society to a major player in international politics? From 1871 to 1914, Japan engaged in a modernization process that put the country on a more equal field of strength as long-established European imperial powers. This course will examine international relations in this age from the Japanese perspective. Essential questions will ask, What causes a nation to seek influence outside its borders, and what causes a nation to become isolationist or abandon isolationism?

### **Latin American Independence Movements**

This course will focus on some of the most volatile, radical, and progressive moments in colonial and post-colonial Latin American history as budding nations established their political foundations and developed their sense of nationhood. Students will examine the causes and impacts of the Brazilian Independence movement, the Mexican Revolution, and the Venezuelan War of Independence by analyzing primary sources, participating in a class debate, and practicing critical thinking skills.

### **Queer Histories And Archives**

How can we memorialize people often forgotten on the margins of our society? This course will focus a specific population, trans women of color. Students will examine notions of sex and gender, exploring the history of different cultures and societies who interpret these categories differently. The deaths of recently deceased trans women and how the criminal justice system handles those cases will be discussed. Through collective conversation we will explore how to preserve the lives of trans women - both dead and alive - through archivism. Most importantly, students will leave this class with a stronger understanding of the issues facing this human population.

### **Silencing The Past**

This course is an examination of how history is made within moments of unrest and violence. In particular, the course will explore the Haitian Revolution. First, we will learn how active agents such as Toussaint L' Overture and former slaves upended slavery in Saint Domingue. Then, we will examine how within that process slave owners, political figures, and other authorities actively sought to disregard the uprising. Once we have done extensive analysis of those events, we will begin asking ourselves questions: why does such an unprecedented event not get enough attention in world history? How does the slave revolt challenge notions of enslavement and power? How does silencing certain histories restructure and/or reorient our interpretations of moments in time? After examining this significant moment in history and answering some of these questions, we will better understand how history is traditionally made and who, in fact, has the power to write it.

### **Sweet, Sweet Victory**

This history course will cover a central turning point in Caribbean history: the Haitian Revolution. Students will examine the impact of French colonization and sugar plantation slavery in mid-late 18th century on the revolution for Haitian independence. Additionally, students will examine and discuss battles from the start of the revolution in 1790 to the final battles that ultimately culminated in Haitian independence in 1804, and the aftermath of the revolution on both Haiti and its surrounding colonies. This class will contain a significant writing component, as students are expected to complete a 3-5 page research paper by the end of the course, with specific sections of the paper due at the end of each week.

### **The World's Fairs: Triumph or Disgrace?**

The first World's Fairs were meant to be an exhibition of all that modern life had to offer, but was everything as future-focused as it seemed? Who benefited from the fairs and who was harmed? Students will investigate the political, cultural, and economic motives behind the Fairs and draw conclusions from studying who was allowed to participate and who was not. In the culminating project for this course, students will be asked to decide whether the World's Fairs were a symbol of progress or of prejudice.

## **PSYCHOLOGY**

### **Memory**

Sometimes we remember what we want to forget, and sometimes we remember events that never happened the way we remember them. But why is that? Students in this course will learn about the theories on how new information is encoded into our working (short-term) memory and then is stored into our long term memory. This course will explore different types of memory, various memorization strategies, and highly studied topics such as flashbulb memories and amnesia.

Students will demonstrate their learning through a variety of activities that include creating and conducting memory tests, as well as analyzing their own autobiographical memories.

### **Sports 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 project about a professional athlete using the topics discussed during the course.

### **Abnormal Psychology**

This course 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.

## **U.S. HISTORY AND AMERICAN STUDIES**

### **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.

### **Great Speeches & Civil Discourse**

The great orators of history have provided a wonderful, and sorely needed, example of how to deliver their message to the masses. This class will watch/listen to some of the greatest orations in modern history and analyze the speeches to see why they were so effective. As a final project, students will deliver a well developed and researched speech of their own on a topic they are passionate about.

### **Presidential History through Political Cartoons**

Political cartoons provide a unique lens for understanding a particular cultural moment in time. American presidents are easy targets for satirical artists, often standing in for political and social trends. This course will first determine what a political cartoon is and establish its role in the press before examining cartoons made about a variety of presidents over time, to track changing attitudes towards war, free speech, and social issues. Students will create their own cartoons commenting on current events.

### **Readings in Civil Rights Literature**

This course explores the work of several key authors in African American intellectual history through careful analysis of the intersection between identity, community, and place. Through careful examination of the socio-economic and cultural conditions of early 20th century America, we will historicize the specific conditions that paved the way for the Civil Rights movement to exist. Authors we will read are: W. E. B. Du Bois, Marcus Garvey, Langston Hughes, Maya Angelou, Amiri Baraka, and James Baldwin.

### **Redefining America**

Did our Founding Fathers, with noble but privileged intentions, compromise the very essence of democracy in the USA from the start? Through a respectful study of select documents, essays, poetry, and lyrics from 1776 through to today, this class will work to understand, account for, and address the systemic failings of our imperfect political experiment that actively threatens to divide these United States of America here and now. For the final course project, students will create and share their portfolio, a compilation of analytical and creative writing inspired by select works prescribed for this. Students are also asked to incorporate apt, original photographs and/or artwork to convey their personal resolve and conviction to promote an American experience truly equitable and available for all.

*Note: This course may also be taken as an English credit.*

### **This is America**

America is often regarded as a melting pot of people and cultures across the globe. This course aims to examine what it truly means to be American, and how the diverse array of perspectives in America contribute to the overall culture of the country. Students will learn of, explore, and grapple with concepts such as intersectionality, privilege, and systemic oppression. Discussion of both historical and current events will serve as a mode for delineating such concepts. This class will also contain a significant writing component, as students are expected to complete a 3-5 page research-based reflection paper by the end of the course, with specific sections of the paper due at the end of each week.

### **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.

### **Witches and Wenches: Women in Early America (1610-1800)**

Starting with the arrival of the 'bride ship' in Jamestown, women were crucial to the founding of America. In this course we will be studying both how women found agency and political participation in Colonial America and their obstacles. By looking at events such as the Salem Witch Trials and the Boston Bread Riots in the early 1770s, we will weave a version of this country's founding that answers the question: How can a more inclusive picture of our history allow for an enriched understanding of our shared stories?

**You are What You Wear: Fashion and Politics**

The first thing you see about someone is often what they are wearing. Clothes were a sign of status and often a sign of political affiliation. From different hairstyles in the English Civil War to the *sans-culottes* of the French Revolution, fashion has served as an identifier of both identity and community. This course will cover fashion from the 1600s all the way to the 1960s. In this course we will look at examples of how politics made the clothes and vice-versa. We will be answering the question: How is what you wear political?

## MATHEMATICS DEPARTMENT

The Mathematics Department provides a stimulating and challenging curriculum for every level of learner, from Pre-Algebra through advanced Calculus. 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.

### MATH ELECTIVE COURSES (9-12)

#### **Number Fluency**

This one-term course is designed to teach students how to think like mathematicians when using numbers instead of relying on older strategies such as time tables 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.

*Note: This course is open to all students.*

### MATH REQUIRED COURSES

Students at Forman must take 3 years of math, preferably through Algebra II. Students are encouraged to go beyond that level. Placement recommendations for math above Algebra II are made by the department for returning students. New students are placed in math by the Academic Office, based on teacher recommendations and grades.

#### **Pre-Algebra**

This course is offered to any student, in any grade, whose fluency of basic mathematical concepts is not yet automatic. Research driven methodologies are embedded into the class to help bridge the gap between the traditional abstract veins of algebraic thought with more accessible, concrete manipulations. Topics covered range from integers and exponents, rational and real numbers, percents, probability, equations and inequalities, graphing lines, functions, and polynomials.

#### **Algebra I**

This is a traditional first course in algebra. Topics include the fundamental properties of real numbers, solving linear equations and inequalities, multiplying and factoring a variety of polynomials, roots, and radical notation. Topics also include absolute value, systems of equations, and algebraic fractions. Research-driven methodologies are routinely implemented to help bridge the gap between the traditional abstract veins of algebraic thought and more accessible, concrete manipulations.

**Geometry**

Prerequisite: Algebra I. May be taken on an Honors level with teacher recommendation  
Traditional Euclidean geometry topics are covered in a standard sequence. Emphasis is placed on the deductive nature of this branch of mathematics, and on the use of algebra in solving a variety of geometric problems.

**Algebra II**

Prerequisite: Algebra I. May be taken at an Honors levels with teacher recommendation. May be taken concurrently with Geometry

This is a standard second course in algebra, focused on Algebraic facility and the concept of functions. Additional topics include quadratic functions and factoring, polynomials, exponential functions, and radical functions.

**Algebra III/Trigonometry**

Prerequisite: Algebra II

This course is intended to prepare students for Pre-Calculus should they wish to pursue that course of study in the future. Students will explore a variety of functions including exponential, logarithmic, rational, and trigonometric functions. Applications of these functions and their graphs will be emphasized throughout the course.

**Probability and Statistics**

Prerequisite: Algebra II

This course is designed to introduce the methods of probability and statistics. Topics include laws of large numbers, discrete and continuous distributions, and sums of random variables. The bulk of the course will be project driven, allowing ample time to explore the concepts being learned the way they might be used by professionals in the field of business or science.

**Pre-Calculus**

Prerequisite: Algebra III/Trigonometry or with Department Chair approval

Pre-calculus 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; circle, triangle, and advanced trigonometry; vectors; sequences and series, as well as other skills students will need for success in calculus.

**Pre-Calculus Honors**

Prerequisite: Algebra II and teacher recommendation

The honors section covers many of the same topics as Pre-calculus, but concepts are explored in much more depth and detail. The pace of the course is also notably faster than that of Pre-calculus. This depth and pace enables for more time to introduce topics from calculus sooner in the second semester. Students will be introduced to Cambridge-style exam questions to help them prepare for the possibility of taking the Cambridge Assessment International Education AS Level Pure Mathematics course.

**Calculus Honors**

Prerequisite: Pre-Calculus and teacher recommendation

This is a standard high school introductory course in calculus. Students will develop and explore the concept of limit, and progress to the development of the derivative. Derivatives of polynomial, trigonometric, and exponential functions and their applications to business, physical science, and engineering will be studied, as well as the fundamental theorem of calculus and an introduction to integral calculus. Use of a graphing calculator is an integral part of this course.

## **SCIENCE DEPARTMENT**

### **UNDERCLASSMEN (9/10)**

#### **9TH GRADE: INTEGRATED SCIENCE**

All 9th graders will take this series of 3-week modular courses that focus on different aspects of scientific exploration and study

##### **Freshwater Ecology**

The MOD is designed to study the stream ecology of the streams running through the Forman campus. Freshwater Ecology is designed around the stream ecology unit already in place, but we will also be looking at lakes, ponds, marshes and their ecosystem functions. This is not intended to be a lab science although labs and lab reports may be part of the curriculum.

##### **Sustainable Development**

How do we sustain human's unappeasable appetite for energy? The course will explore topics on solar energy, recycling, food systems and the water and carbon footprints of the Forman campus. This is not intended to be a lab science although labs and lab reports may be part of the curriculum.

#### **10TH GRADE: BIOLOGICAL SCIENCE**

All 10th graders will take this series of 3-week modular courses that focus on different aspects of biology.

##### **Introduction to Microbiology**

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. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

##### **The Origin and Evolution of Life from Mud to Modern Day**

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 demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

## UNDERCLASSMEN SCIENCE ELECTIVES (9, 10)

Underclassmen who have room in their schedule may take more science classes if they like and may **choose from the upperclassmen electives courses with the exception of Physics, Human Anatomy and Physiology and Field Ecology.** They may also choose one or more of the following Robotics courses.

### **Coding Robots**

In this course students will learn to code robots to accomplish great feats by applying the C++ language with the new Vex game "Change up," a game of strategy and skill.

## UPPERCLASSMEN SCIENCE ELECTIVES (11, 12, PG)

All of the courses listed below are considered lab sciences unless otherwise noted. Each course is .25 credit. Students need to take four, 3-week modular courses to earn 1 science credit.

### CHEMISTRY

Students interested in earning a Chemistry credit take all four of the first 3-week modular courses listed. Students who want to only take one or two Chemistry courses can take the "Foundations" courses. Students interested in "Applications" must take at least one "Foundations" course. Students interested in "Reactions" must first take both "Foundations" courses.

#### **Chemistry: Qualitative Foundations**

*Also available as an Honors level course*

The course will cover an array of topics including properties of matter, chemical reactions and atomic theory, bonding, Students should leave this course having mastered fundamental concepts of chemical change, acquired essential lab skills, and have developed critical thinking, problem-solving skills, experimental design, and data analysis are emphasized. This is intended to be a lab science. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets and graphing programs and to use a standard scientific calculator.

#### **Chemistry: Quantitative Foundations**

*Also available as an Honors level course*

The course will explore the importance of the periodic table as a tool to predict chemical bonding, chemical formulas, mole relationships, and stoichiometry. This course will explore the properties of a solid, liquid, and gas, if time permits. Students should leave this course having mastered fundamental concepts of quantitative chemistry, acquired essential lab skills, and have developed critical thinking. Problem-solving skills, experimental design, and data analysis are emphasized. This is intended to be a lab science. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets and graphing programs and to use a standard scientific calculator.

**Chemistry: Applications***Also available as an Honors level course*

Prerequisite: either Qualitative or Quantitative Foundations

Students will examine the role that chemical principles play in their daily lives. Students will be introduced to a variety of problems and examples that affect all of us so that they can understand the key role that chemistry plays in our world and the interaction of chemistry and society. For example: What is the chemistry behind climate change and what are some potential solutions? What makes recycling plastics so complicated and how do you do a life cycle analysis of materials? What is the chemistry behind solar energy, biofuels, and nuclear energy? Students will learn basic chemical principles, work collaboratively in the lab, and have the opportunity to choose some topics of specific interest to them. It is suggested that students have a prior course in chemistry. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

**Chemistry: Introduction to Reactions***Also available as an Honors level course*

Prerequisites: Qualitative and Quantitative Foundations

In this course, students will examine the properties and reactions associated with acids and bases, oxidation and reduction, and exothermic and endothermic reactions. Essential lab skills, critical thinking, problem-solving skills, experimental design, and data analysis are emphasized. This is intended to be a lab science. Labs and lab reports will be part of the curriculum. Lab reports will require students to use spreadsheets and graphing programs and to use a standard scientific calculator. The student will need to take Qualitative Chemistry Foundations, and Quantitative Chemistry Foundations prior to this course.

**Introductory Organic Chemistry**

Introductory Organic Chemistry is a course focusing on the fundamental chemistry of carbon and its compounds. The course will begin with a look at the chemistry of carbon, and then these principles will be applied to the study of hydrocarbons. The chemistry of alkyl halides, alcohols, aldehydes, ketones, amines, esters, and carboxylic acids will complete the study of carbon compounds. Laboratory activities will form a major component of the course requirement with the possibility of some independent research topics incorporated into the material. Where possible, emphasis will be placed on the importance of organic molecules to our present-day society and will address environmental issues, where appropriate.

*Prerequisites: Permission of the Department and successful completion of Chemistry (1 full credit).*

**ECOLOGY****Urban Sustainable Development**

In this course students will explore challenges that face human society as climate change puts pressure on food, water, and energy systems. We will examine case studies from around the world that show how different communities have been adapting to changes in these systems in order to create a more sustainable environment for themselves. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. Labs and lab reports will be part of the curriculum.

### **Life, Threatened: Human Health in Our Environment**

This course integrates concepts of ecology, environmental science, and public health through the study of threats to human health. Environmental health issues vary considerably, in both scale and context, from diseases caused by secondhand tobacco smoke to threats posed by global climate change. The course will introduce a range of environmental public health issues and examine these topics in the context of greater New England. Students will apply their learning to the Coronavirus (SARS-CoV-2) Pandemic which has visited upon humankind a deadly virus of zoonotic origin. The arc of the course will follow a PBL format wherein driving questions about human viability in a changing world will guide discussion. The primary assessment will be a final PBL presentation on the implications of SARS-CoV-2 and environmental health.

### **Reproduction and Communication in the Animal Kingdom**

In this course students will examine how two theories of evolution (natural and sexual selection) have built our animal kingdom. By looking at different species, students will explore animal behavior using Nikolaas Tinbergen's four essential questions to ethology. Some of these behaviors may include displays of dominance, posturing, and competition. By using scientific studies done on species around the world, students will analyze data to discern the process of evolution, natural and sexual selection strategy. The course will address questions such as: What does it mean to be an Alpha Male? Why do male deer have horns and females don't? Why are there patriarchies? Why do birds dance?

### **Genetics and Inheritance**

This course will investigate DNA, genes, and different patterns of inheritance. Students will gain a deeper understanding of DNA, genes and their crucial functions, and an understanding of how these genes are passed from generation to generation. Specific examples of inheritance patterns will be studied and presented on. Research, discussions, labs and activities will drive students' learning.

### **Evolutionary Biology**

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.

### **Pandemic: Emerging Disease**

In the last century, cultural, environmental, and socioeconomic factors have contributed to the emergence (or re-emergence) and increasing burden of infectious diseases globally, with important impacts on national health care systems, economies, and local communities. This course addresses important infectious diseases which are either newly emergent (e.g. COVID-19, HIV, avian & swine influenza, West Nile virus, Foodborne trematodiasis) or re-emerging in various parts of the world after a period of relative retreat (malaria, dengue, tuberculosis). Some of the diseases occur in relatively remote areas in the United States and worldwide (e.g. filariasis), while others such as new strains of antibiotic-resistant bacteria (e.g. MRSA) are becoming commonplace. What can we do to prevent outbreaks of infectious diseases from becoming epidemics or pandemics? Students in this course will learn the facts about infectious

diseases and medical responses, focusing on the public health laws and policies that provide the framework for effective prevention.

### **Honors Marine Biology**

In this introductory course students will study marine organisms and their behaviors and interactions with the environment. The course will introduce aspects of chemical, physical, and geological oceanography to understand marine organisms. Students will apply their learning through activities such as structured experiments, modeling, and a final presentation. In a virtual environment, students will engage directly with primary-information stakeholders, such as practicing marine biologists at Mystic Seaport. Final presentations will showcase students' creative application of marine biology principles to the July 2020 Mauritius Oil Spill disaster through a Project Based Learning (PBL) module. This is intended to be a lab science. Virtual labs, including a freshwater zooplankton tow, will be conducted locally, and lab reports will be part of the curriculum.

## **ECOLOGY: FORMAN BUILDS A FARM**

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 these courses, 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 include soil chemistry, plant physiology, and horticulture, while broader themes of study include sustainability, climate change, and ethical land use practices.

### **Fermentation and Preservation**

Fermented foods are the healthiest, cheapest and some of the most delicious superfoods available in the world. 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.

### **Nutrition**

This course provides an integrated overview of the physiological requirements and functions of protein, energy, and the major vitamins and minerals that are determinants of health and diseases in human populations. Labs and lab reports will be part of the curriculum.

### **Botany**

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. Lab work in this course will involve selection and seeding of new plants for our campus farm. Labs and lab reports will be part of the curriculum.

### **Vegetable Production**

This course will include principles of garden planning, propagation, transplanting, fertilization, pest control, weed management, harvesting and storage. Labs and lab reports will be part of the curriculum.

## FIELD ECOLOGY

The Field Ecology courses are designed as an alternative to Forman's Tropical Ecology Seminar program for the 2020-21 year.

### **Mammalogy: Biology and Habitats**

In this class, we will survey mammals on campus through the use of Havahart traps, camera traps, prints, and scat. There will be a special concentration on bobcats and their GPS locations. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

### **Reptiles And Amphibians**

In this course we will learn about the anatomy of "herps" and which species live on campus. To that end, students will do a field study and survey of reptiles and amphibians on campus. They will find, collect, identify, measure and record all these species. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

### **Entomology**

Ever wondered what that cool insect is? This class will help you figure it out. In this class we will comb the campus, identifying many species of insects, some native and some invasive. This is a lab class. We will be outside much of the time collecting and in the lab for identification. In this class you will make a photo journal of all species you find and their locations. This is the ultimate in lab classes.

### **Dendrology**

Did you know that Connecticut is the most treed State in the lower continental US? Did you know that trees absorb much of the CO<sup>2</sup> we give out, and that they are an incredible carbon sink? Do you want to know what's around you and impress your neighbors with naming trees? Did you know one of the oldest, most ancient species of trees lives a half mile from campus? They are such a vital part of our ecosystem that we are offering a course in identification of trees and their unique habitats. This is a lab class and will be held outside.

### **Ichthyology**

Ichthyology is the study of the anatomy and identification of fish and their evolution; and because of the great importance of fishes as human food, economic ichthyology is a significant science. In this class we will be raising fish in our lab, as well as catching species in the field, for dissection. We will touch on field preparation of fish for consumption as one of our lab classes, as well. We will look at fish farms and how species are raised. Labs and lab reports will be part of the curriculum.

### **International Field Methodology**

In this class we will be in the field, gathering information on a locally listed plant or animal. Students will learn how to collect the data and interpret the results. Sometimes you just don't know what your data shows until you enter the numbers in an Excel Spreadsheet, or plot on a graph, both of which students will learn to do. This class is a field class and will be focusing on the rarest species on campus. Labs and lab reports will be part of the curriculum.

## FORENSIC SCIENCE

### **Blood's Role In Forensic Science**

This course will cover the importance of blood in the field of Forensic Science, specifically blood pattern analysis. Students will learn about the Biology of blood typing and toxicology, and the Physics of blood spatter, through hands-on labs and activities and case studies. In this course students will be able to “follow the blood’ from the crime scene to the trial. 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

Students interested in taking one or more geology courses should, schedule permitting, take the “Foundations” course.

### **Our Dynamic Earth: Foundations**

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, the kinds of ongoing research in the many sub-disciplines of the earth sciences, and the relationships between earth processes and current social issues. Particular attention will be given to the geology of northwest Connecticut and the rocks and minerals that can be found throughout the Forman campus. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. Labs and lab reports will be part of the curriculum.

### **Introduction to 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.

### **Natural Disasters**

This course is designed to provide an overview of natural disasters, including an examination of some major disasters from recent history, plate tectonics, volcanism, tsunamis, hurricanes, tornados, climate change, floods, and fire among others. An emphasis will also be placed on understanding the mechanisms of why natural disasters occur and what scientists can do to

predict and protect humans from future disasters. Labs and lab reports will be part of the curriculum.

### **Space: Intro to Astronomy**

This class is designed to provide a non-technical overview of basic astronomy topics. Some topics addressed through study in this course are: the size and scale of our solar system, galaxy, and universe; our Sun and our Moon; the constellations in our sky; both ancient and modern astronomers; how stars burn fuel; the methods scientists use to study distant stars; the birth, life, and death of stars; the planets within our own solar system; space exploration missions and the search for extraterrestrial life.

## **HUMAN ANATOMY AND PHYSIOLOGY**

### **Brain and Nervous System Anatomy**

This class will learn by dissecting the brain of a fetal pig. How much of the brain is responsible for your personality, your hearing, your eyesight? How does the brain send out signals? Can we test it? This lab class will answer these questions and have many "Ah-ha" moments. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

### **Eye and Ear 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 find all the parts that make an eye function. We will also take an intricate look at the ear and dissect the inner bones that make our ears function, by using a pig's ear. This is the ultimate in lab-based science.

### **The Skeletal System**

In this class we will learn all the bones of our skeleton and their function. We will then put together mice skeletons in 3D, in small lab groups and identify as many bones as possible. This is a lab-based class.

### **The Muscular System**

In this course we will learn the major and minor muscles that help us function and play sports; how they work and where they are in the body. This class will learn by dissecting a fetal pig and finding and labeling the muscles used in five different sports. This is a lab-based class.

### **Embryology**

In this class we will be looking at the fetal development of a chick and compare it to that of a developing human. We will do this by incubating and candling chicks, watching their development over a 21-day period. Students will keep a journal on daily development. When the chicks hatch we will look at Mendel's Laws of dominance and recessive genes through the feather color to find out who the parents are. Labs and lab reports will be part of the curriculum.

### **Neuroscience: The Study of the Brain**

This course will explore how different parts of the human brain are linked to locomotion, substance abuse, mental illness, and memorization. The students will also learn about neurons and the role some key neurotransmitters play a significant role in our decision making and behavior. Students will demonstrate their learning through activities such as structured experiments, modeling, and a final project symposium involving a case study of a brain

impairment. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

## PHYSICS

Students interested in earning a Physics credit take all four of these three-week modular courses.

### **Physics: Electricity**

#### ***Also available as an Honors level course***

This course will study the place and role of electricity in the home and in our modern society, from generation to consumption. The class will begin with an exploration of basic electricity terms and relationships in simple series and parallel circuits. The nature of different conductors and how they are used to move electrical energy will be examined, relative to large scale power transmission as well as in typical homes. Students will understand the creation and use of electromagnetic fields and how they are linked to power generation. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

### **Physics: Projectiles**

#### ***Also available as an Honors level course***

This course will study the ways that humans have used various forms of energy to move objects over long distances. This course will begin with an introduction to Two-Dimensional Motion and Vectors, exploring the ways that vectors can be applied to all types of motion. Close attention will be paid to the addition and subtraction of vectors using simple geometric calculations. This will allow us to mathematically define the free-body motion of all objects, from the simplest to the most complex. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. Labs and lab reports will be part of the curriculum.

### **Physics: Waves And Their Interactions**

#### ***Also available as an Honors level course***

This course will begin with an analysis of Simple Harmonic Motion, the principles of conservation of energy and their relation to waves. Students will learn the basic properties of all waves, including their period, wavelength, frequency, amplitude and speed. Students will explore the nature of sound wave cancellations and reinforcement, including noise cancellation and beat frequencies. Finally, students will investigate the reflection, transmission and refraction of light. Students will demonstrate their learning through activities such as structured experiments, modeling, a poster symposium, and other summative assessments in various forms. This is intended to be a lab science. Labs and lab reports will be part of the curriculum.

### **Physics: Motion**

#### ***Also available as an Honors level course***

How can Physics define One-dimensional Motion using the mathematical relationship between distance, speed, acceleration and time? This course will begin with an introduction to one-dimensional motion and the scalar values that we use to explore it. As all motion is relative, a careful look at Frames of Reference for everyday life will be followed by an overview of Einstein's Theories of Relativity. Open-ended lab work will be used to explore the motion and

acceleration of frictionless vehicles, using various ramp angles to predict the value of acceleration due to gravity. The vertical acceleration of objects due to gravity will be measured and calculated. Photogate timers will be used to capture critical time values. Freefall and the terminal velocities of various objects will be included in an exploration of friction. Surface friction and drag due to fluids will be applied to the everyday motion of various vehicles. Kinematic equations will be given for needed problem solving, along with an analysis of motion using graphs. Labs and lab reports will be part of the curriculum.

## **ROBOTICS**

### **Coding Robots**

In this course students will learn to code robots to accomplish great feats by applying the C++ language with the new Vex game "Change up", a game of strategy and skill.

## **HEALTH, WELLNESS AND LEADERSHIP**

### **HEALTH, WELLNESS AND LEADERSHIP 10**

All 10th graders take both 3-week modular courses in the spring semester as a graduation requirement. These courses are graded on a Pass/Fail basis and receive .25 credit.

#### **Emotions Matter**

Students will explore how emotions have the ability to shape their identities and daily lives. They will discover ways to use emotions to promote health and wellbeing. Topics will include the physiology of mental health and techniques for stress reduction. Sections of the curriculum are adapted from the RULER program out of Yale University's Center for Emotional Intelligence.

#### **Healthy Choices and Relationships**

Students will unpack the process by which they make choices and the relationships they have with others. They will discover ways to align their values with their choices. Topics will include substance use and maintaining physically and emotionally healthy relationships. Sections of the curriculum are adapted from the RULER program out of Yale University's Center for Emotional Intelligence.

## 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.

**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 I* 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 I* 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

Most courses in the art department are open to students in all grades and all levels of experience. Music courses are the one exception to this, but we have indicated the appropriate level in each of the descriptions.

### ART HISTORY

#### **Into 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 presentation, or another creative outlet.

### CULINARY ARTS

#### **Culinary: Fire**

In this course we will explore fire, which is at the very root of what makes us human and is also responsible for how we got to where we are today in our modern civilizations, cuisines and cultures. We will consider some of the ethical implications implicit in everything we study such as human evolution, food culture, agricultural system, and the African Diaspora. We will read from a variety of authors, including Michael Pollan, Francis Mallman and study ideas and writings by Doctor Mike Hyman. The final project will consist of cooking a meal over fire, while incorporating all of our knowledge gained from our studies.

#### **Culinary: Water**

In this course we will explore the evolution of pot cooking with water responsible for our modern day processed food industry and what effect it has on our health and environment. We will explore authors such as Michael Polan, and Dr. Mark Hymann and watch the documentary "Cooked." We will also learn pot cooking beginning with ceramic pots over fire, then onto metal pots over stove burners and finishing with cooking Sous Vide. We will study braising meats, stocks, sauces, and ice cream, as well as research how long it takes for ultra processed food to actually go bad. We will consider some of the ethical implications in everything we study, including the agriculture system, health care system, nutrition/health, obesity in America which extends to developing countries, and the importance of WWII on the change in the Global Food system. The final project will consist of us cooking a meal from different forms of pot cooking and incorporating all of our knowledge gained from our studies.

#### **Culinary: Air**

This course will explore air and its connection to the destruction of all our ecosystem through agriculture, from the desertification of the fertile crescent to our modern day American "Dust Bowl." We will explore whether gluten is bad, or if not, then why and how did we begin to think this way? We will read authors such as Michael Pollan, Wes Jackson, Dan Barber, Dr. Mark Hymann and research from Washington State Universities Bread Lab and U.C. Berkley's Edible 101. To dive deeper into the subject we will be milling grains grown by multiple small American mills and farms and learn about creating and maintaining a Sourdough mother, and making sourdough bread, pizza, and pasta. We will consider some of the related ethical implications of

agriculture systems, seed biodiversity and stewardship, health/nutrition, desertification, holistic land management, regenerative agriculture, landraces, and carbon sequestration. Our final project will be baking different forms of sourdough bread and eating them while incorporating all of our knowledge gained from our studies.

### **Culinary: Earth**

In this course we will explore the question of whether we are everything we eat, drink, and breath in the amalgamation of trillions of microbes that create life. We will study authors such as Michael Polan, Dr. Mark Hymann, Dan Barber and Sandor Katz, among others. To take a deeper dive into this question, we will cure and taste meats, make and taste cheeses, make ferments, such as kimchi, sauerkraut, kombucha, yogurt, and hot sauces. We will also consider some of the ethical implications like the interconnectedness of life, health/nutrition, microbiome, agriculture systems, and regenerative agriculture. Our final project will be a feast of our ferments as we discuss the knowledge we gained in our studies.

## **CERAMICS**

Ongoing in all ceramics courses will be our attention to the basic elements of design - shape, form, color, texture - as students learn how to apply the fundamentals to the various elements of their own work. With creativity and self-expression always encouraged, students will explore their artistic freedom as they embrace the criteria of each assignment. Students will complete the course with a portfolio of finished works, all of which will be photographed and saved in a permanent online file.

### **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 Voukos.

### **Ceramics: Functional Pottery**

Students utilize a variety of hand-building skills and wheel work to create functional objects designed for everyday use. Further explorations include experimentations with a variety of glazing, underglazing, and surface relief techniques. As their culminating project, students create a cohesive body of work that relates to their personal choice of central theme or design concept.

### **Ceramics: Pick an Artist**

Contemplating the works of their choice of non-ceramic artist (perhaps a painter, or a sculptor, or a photographer), students select an inspirational artist to emulate as they create their own ceramic works. Students will experiment with a variety of construction methods, including wheelwork and hand-building as they work toward final portfolios that illustrate their choice of a consistent artistic style and collection theme.

## METALSMITHING

### **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 are 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.

## MUSIC

### **Private Music Instruction**

Students may begin or advance their vocal and/or instrumental studies through private lessons while at Forman. 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](mailto:jerrod.cattey@formanschool.org) for more information and for scheduling. Note: private music instruction does not earn academic credit at Forman and lessons may have to be delivered virtually, depending on the health alert level in place at school.

## COURSES FOR NON-MUSICIANS

### **Electronic Music-Making with Software Instruments**

*All Levels/Non-Musicians*

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's to create sessions, access loops, and adjust parameters. Students will design their own drum machines and synthesizers to make unique beats and compositions. One of the major projects will cover the basics of sampling, a widely used technique 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.

### **Electronic Music - Software-Based Composition and Theory Intermediate to Advanced**

This course is designed for students who have taken the Electronic Music course or have a working understanding of Logic Pro X and it's basic workflow and editing functions. Students will learn compositional techniques and theory applied to the electronic music-making process. Basic piano performance, chord progressions, melody, and orchestration will be explored. The final project will be a full-length composition in a standard contemporary form.

### **Rhythm Workshop**

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 mod.

*Note: Online alternative will be general music, as students will not necessarily have access to these instruments.*

## **COURSES FOR STUDENTS WITH PRIOR MUSICAL EXPERIENCE**

### **Stax Ensemble**

#### ***Intermediate to Advanced***

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 Stax Ensemble will focus on African American artists' contributions on Memphis, Tennessee's Soul Record label, Stax Records. These influential records were a less commercially-viable alternative to the more mainstream Motown Records of Detroit but are equally important to American music history. Students will perform a repertoire of artists such as Otis Redding, Booker T and the M.G.'s, The Mar-Keys, Albert King, and more. Horn players are encouraged to join.

### **Jazz Guitar Ensemble**

#### ***Intermediate to Advanced***

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.

### **Forman Strings**

#### ***Intermediate to Advanced***

This new offering is for intermediate to advanced string students and is not appropriate for students with no prior knowledge. The ensemble will provide string players the opportunity to work within a small ensemble whose music will be arranged specifically for the group's skill levels and instrumentation. Repertoire will range from classical to contemporary to provide a new experience for every player. This course will look much different from the typical orchestra or chamber string ensemble and may include opportunities for composing, improvising, and performing non-traditional repertoire. In addition to group rehearsal, students will work toward building their technical skills independently. All students will participate in a performance at the end of the course.

## **Advanced Musicianship**

### ***Advanced - Upperclassmen***

This course will offer the serious music student the opportunity to dive deeper into music theory, composition, improvisation and ear training. One major takeaway will be creating an individual practice routine that includes the concepts mentioned above in addition to repertoire and technique. The course content and workload will be significant and students should expect to dedicate a minimum of five hours per week of practice time outside of the classroom.

### **Vocal Music: Group Harmony and Choral Technique**

While we typically remember the melody of our favorite songs, the harmony is what really makes them special. This class will give all level of singers the opportunity to participate in choral singing in a variety of genres with the goal of one performance at the end of the mod. 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.

### **Audio Recording**

This course is suited to students in 11th and 12th grade interested in the audio engineering side of musical production. Musicians who take this course will have their performing talents utilized for recording, though the performance aspect will not be the primary emphasis. 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. The outcome will be a student-engineered recording and participation in a live music event where they will set up and run the digital sound board.

## **PHOTOGRAPHY**

Ongoing in all digital photography classes will be our attention to the basic elements of design — shape, form, color, texture — as students learn how to apply the fundamentals to the various elements of their own work. With creativity and self-expression always encouraged, students will explore their artistic freedom as they embrace the criteria of each assignment. Students will complete the course with a portfolio of finished works, all of which will be saved in a permanent online file.

## **DARKROOM PHOTOGRAPHY**

### **Darkroom Photography: Special Effects in the Darkroom**

The course surveys a range of traditional and non-traditional darkroom techniques to expand the range of artistic possibilities. Students explore alternative means of applying photographic images on a variety of surfaces via innovative darkroom methods. Class-times include demonstrations, lectures, exercises in the darkroom, and individual project development, with covered layering, solarizing, dodging, burning, and emulsion manipulation, being among the processes that students will engage with and explore.

## DIGITAL 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.

### **Digital Photography: Abstract Worlds**

What is an abstract photograph and how do we create one? We will discover how to utilize lines, shapes, shadows, color, textures, etc. as the subjects of our photographs. Instead of capturing images where the viewer knows immediately what the subject is, we will capture images that engage our imaginations into interpreting unique points of view. Some photographic techniques utilized will be close-ups, selective focus, depth of field and more. We will study work by photographers Edward Weston and Philippe Halsman.

### **Photomontage: Turning Photographs into Photo Illustrations**

This course will explore different photographic stories by blending multiple photographs into photo illustrations. Students will create photo illustrations from new images they capture during the session. Some photographic techniques utilized will be different styles of photography, photo editing, blending and design using Adobe Photoshop. We will study work by photographers Julee Holcombe and Tom Chambers.

### **Alternative Photographic Processes**

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.

## STUDIO ARTS

Ongoing in all studio arts courses is the attention paid to the basic elements of design — shape, form, color, texture — as students learn how to apply the fundamentals to the various elements of their own work. With creativity and self-expression always encouraged, students will explore their artistic freedom as they embrace the criteria of each assignment. Students will complete the course with a portfolio of finished works, all of which will be photographed and saved in a permanent online file.

### **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.

**Drawing and Painting: Ocean Mysteries**

How can we create art that appears to be underwater in the ocean? Students will use drawing and painting techniques to create mixed media artworks about the ocean. We will combine realistic and creative drawing, painting, collage and design techniques; explore how light affects color; and examine how the different forms of life in the ocean interact with each other in our art. We will study work by artists Jane Kim and John J. Audubon.

**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 such as linocut, woodcut, and monoprint, while participating in perspective-shifting discourse.

**Multi Media Sculptural Weaving**

This course teaches traditional basket weaving techniques to be applied towards modern sculptural explorations. Based on weaving traditions that go back thousands of years, students learn the fundamentals of twining, random weave, and plaiting. Students will then be challenged to use these traditional techniques while incorporating non-traditional materials and forms.

**Photorealistic Self Portrait**

This course teaches the foundations of pencil drawing and shading skills through the medium of a self-portrait. Using grid techniques to interpret a self-portrait photograph, students will master an understanding of tones, value, and shape.

**Portfolio Making**

What should be in an art school application portfolio? How do you present a portfolio? What gives you the best chance of being accepted by the art school of your dreams? This course teaches students how to make an art portfolio for college or university and is focused around the design and composition of an art portfolio. This course will also help students develop their artist statements and supplemental materials, if necessary. Students who are interested in attending art school will be able to hone their skills and become familiar with life in a university.

**ANIMATION****Digital Animation Toolbox**

This course serves as an introduction to various digital animation techniques. Software applications such as Photoshop, Illustrator, After Effects, Premiere Pro are introduced and incorporated into assignments that draw inspiration from traditional animation techniques.

**Hand-Drawn Animation**

This course teaches the foundation of hand-drawn animation using both paper and pencil, as well as Adobe Flash. After mastering the skills of squash, stretch, and motion blurs, students will be challenged to combine all of their skills into a multimedia short animated film.

## THEATER AND DRAMATIC ARTS

### **Acting for Stage and Screen**

So you want to be an actor! This course will explore the differences and similarities between acting/directing for the stage, and acting/directing for the screen. We will watch stage to screen adaptations and discuss what makes each unique to its medium. A final project will involve performing a monologue for both the stage and the camera.

### **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’, ‘SNL’ and ‘What Would You Do’ and use them as guides for creating our own sketch comedy and invisible theatre projects. This course helps to build skills surrounding listening, public speaking, group interaction, and creative expression.

### **The Art of Conversation**

Students will practice public speaking through a series of activities which involve debate, discussion, recitation, and presentation. We will use 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. The final project will be a speech that the student will write entitled “All About Me”. This course will help students strengthen important conversational skills such as, projection, expression, eye contact, listening and responding.

*Note: This course may also be taken as an English credit*

### **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/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. 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.

## VIDEO, FILM AND JOURNALISM

### **Holy Foley**

This class will introduce students to the art of Foley, which is the creation of sound effects for film and television. Students will learn the fundamentals of how sound works and is perceived by an audience through various projects where they will create their own sounds for different audio-visual sources. Projects will include creating sounds for different environments and weather, classic radio serials, and scenes from martial arts films and classic silent films.

### **Journalism: Writing for "The Roar"**

Students will pitch, research, and write one article per week for the school’s regular student publication, *The Roar* (formerly known as *The Monthly 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 can also be taken either as an Arts or an English credit.*

### **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!).

### **Podcasting**

Students will develop, plan, and produce three episodes of an original podcast. Based on the amount 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.

## **THINKING AND WRITING DEPARTMENT**

All new 9th, 10th and 11th grade students take four 3-week modular courses over the course of the year in Thinking and Writing, equalling one credit.

New seniors and PGs take at least one 3-week elective modular course, and preferably two. Returning students are welcome to take elective courses as well.

### **Required Courses for New 9th, 10th and 11th Graders**

#### **Thinking and Writing III: Finding Voice & Choice**

The third 3-week modular Thinking and Writing course 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 involves finding, evaluating, and synthesizing relevant information. Differentiated instruction guides students through the writing process to foster independence in purpose-driven written expression 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.

#### **Thinking and Writing IV: Blocking Writer's Block**

The fourth 3-week modular Thinking and Writing course focuses on writing support for subject-specific tasks across the disciplines as well as application of differentiated strategies to build on individual strengths in the writing process, including task initiation and management. Additionally, students expand their perspectives as writers through the writing technique of RAFT (Role, Audience, Format, Topic) where students learn to consider the diversity of purposeful communication and meet the challenges of approaching a writing task outside of their own personal experience.

### **UPPERCLASSMEN THINKING AND WRITING ELECTIVES (11, 12, PG)**

#### **Evidence-Based Writing**

Evidence-Based Writing is an intense, three-week modular course that 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, and 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.

**Scientific Writing**

This Thinking and Writing module focuses on writing in the sciences, as well as how to strategize, plan, and manage time for writing assignments in those classes. Through the use of perspective-shifting strategies, such as RAFT, students will grow familiar with the basic elements of writing proposals and lab reports. Additionally, students will work with the instructor to individualize a writing process that helps them better manage scientific writing tasks by utilizing a combination of strategies often used in the Thinking and Writing department.

**Writing Visually**

This intensive 3-week course is founded on the premise that the flow of a writer's word is as much a product of visualization as of abstract thought. The word "imagination" comes from the Latin verb *imaginari*, meaning to picture mentally. Writing Visually is devoted to building students' strength in letting the visual brain supercharge the verbal brain. With guided practice, students will explore a variety of brainstorming techniques, using both hand-drawn and electronically-created graphic organizers, in addition to drawing inspiration from photos in drafting and revising. By tapping into the power of visualization techniques, students can envision successful writing outcomes, energize themselves as writers, and learn to be fearless in putting themselves on the page.

## COGNITION AND LEARNING DEPARTMENT

### ACADEMIC READING

#### **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. Additionally, students will delve into assistive technology options and resources throughout their time in this course. Students in this strand will take the course for the entire 20-21 academic year (4 individual three week Mods)

#### **Reading Skills and Development**

Students that are placed in Reading Skills and Development will be exposed to a variety of different Mods that each have a separate and unique set of skills and strategies that are addressed. Each Mod has its own overarching theme that runs throughout the course. Course content and focus is derived from that theme. Students in this strand will be placed in a total of 4 of the following Mod courses.

#### **Courses offered for students in the Reading Skills and Development strand:**

**Foundations of Fluency:** In this course, students will improve their fluency skills through the Wilson Fluency program. This program encourages students to read with accuracy, automaticity and expression. Students will practice these skills with sight words and leveled reading passages. In addition, students will also receive direct instruction for decoding, spelling, and understanding multisyllabic words through the Megawords workbook series.

**Character Development:** In this course, students will explore character development in a literary context by reading a short novel. Students will also engage in annotations and in-class discussions to help monitor their comprehension. This course will give students the skills to be able to identify how characters change over time, what influences this change, and how this impacts the plot of the story.

**Vocabulary Comprehension:** In this course, students will be introduced to specific word learning strategies that they can apply to a variety of words in order to build unknown vocabulary attack skills and strategies. By looking at the morphology of words as well as learning Latin and Greek roots, prefixes, and suffixes students will improve their decoding skills. This course will give students the ability to use a toolbox of skills in order to use word-learning strategies independently.

**Reading for Meaning:** In this course, students will focus on the Reading for Meaning Strategy. This reading and reasoning strategy helps them understand new ideas, make inferences, and support their thinking with evidence. Students will 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.

**Art of Annotations:** In this course, students will learn and practice a variety of annotation techniques. Students will be able to determine which method works best and can be carried over to content classes. This skill will be practiced by reading a short novel and participating in class discussions. The goal of this course is to have students learn what it means to be an “active” reader through the process of annotating the text.

**Reading with a Critical Eye modular strand:** 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. Students in this strand will take the course for the entire 20-21 academic year (4 individual three week Mods)

## **THE EMPOWERED BRAIN: CULTIVATING SELF-AWARENESS IN LEARNING**

### **Philosophy and Theory of the “The Empowered Brain” Courses**

These courses are 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 of these courses is to provide students with the tools necessary for getting to truly know themselves as learners. Courses in this modular strand will 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. By delving into such topics as adolescent brain development, the goal setting process, metacognition, personal introspection, study strategies, organizational skills, and time management, 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. Self-awareness serves students for life. The Empowered Brain modular course of study gives students the tools to advocate for themselves academically and socially. The goal is that students leave these courses with an in-depth understanding of both themselves and their learning profiles. Self-reflection that encourages students to recognize their learning strengths and vulnerabilities is an essential element of courses in this modular strand. Upon the conclusion of these courses, students will leave with a newfound confidence in their academic abilities.

**Introductory modular courses that all *new* Forman students in the “Empowered Brain” track must take:**

### **Understanding Myself as a Learner**

In this course, students will begin to explore who they are as a learner. 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. The goal of this introductory course is for students to understand that learning is an “active” process that simply does not just “happen.” 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 explored. Lastly, 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. This course is designed to serve as an introduction to topics that students will explore in a more in-depth fashion in subsequent modular classes in the “Knowing Thyself” curricular course of study.

### **Modular courses offered to all students in the “Empowered Brain” track**

(Please note that a number of courses are exclusively intended for students in grade 11,12, and PG)

#### **The Science of Studying: Studying Smarter, Not Harder**

In this course, 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. These skills will first be introduced with controlled practice worksheets before learning how to generalize these skills into content area courses. The goal of this course is to teach students how to study properly in order to become successful in their classwork while in high school and beyond. At the conclusion of this course, students will have determined which strategies work best and how to transfer them to other classes.

#### **Find Success in Organization**

In this course, students will learn different methods for recording their short and long term assignments. Students will experiment with electronic and paper planners and identify a method that they will implement throughout the course. The goal is for students to identify and successfully implement their chosen method in their content classes. In addition, students will learn how to organize their Google Drive, and Gmail. Additionally, students will be introduced to and encouraged to use various assistive technology-related applications that are designed to improve their organizational skills.

#### **The Art of Listening and Notetaking**

In this course, students will delve into strategies and skills centered on improving their ability to listen while taking notes. Students will learn techniques for how to enhance their ability to be “active listeners” who are able to focus on their listening, think about what they are hearing, take effective notes, and remember much of what they have heard. *Listening and Note-Taking* is an easy-to-learn strategy that helps students identify and quickly capture important information during a lecture, sort main ideas and details as they write, and study their notes to earn the best assessment grades possible. Upon conclusion of the course, students will leave with the ability to take more comprehensive and thorough notes while they are listening to course material. Additionally, students will be introduced to various assistive technology-related note taking applications.

### **Going for Gold: Long Term Planning and Project Analysis**

In this course, students will 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 at the conclusion of the course. 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. Self-assessment, project management, and student-teacher conferencing will all be emphasized throughout the course. In completing these projects, students will be able to explore each strategy, tweak it, and individualize them to fit the student's specific needs. 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.

### **Learning and the Brain**

Understanding how the brain works, particularly how it grows and evolves during the adolescent years, underpins our inquiry in this course. This course is designed to give students details on what the brain needs and then provide skills and strategies for making learning easier. In-depth research on adolescent brain development and functioning will be explored. What is learning? How does it work in a neurological sense? Students will explore how they can use the science of learning to inform their academic habits of mind. Students understand what it truly takes to learn new information as well as key strategies and habits they can employ to find success.

### **Comprehension Strategies**

In this course, students will learn how to improve their comprehension in general by learning various strategies that focus on the understanding of textbooks, presentations, and lectures, as well as how to use graphic organizers within a class. As part of improving a student's overall comprehension, students will learn various visualizing strategies such as the Recall Enhancement Routine to improve understanding of concepts in content area courses, the Lexicon Strategy for expanding and assimilating vocabulary needed for understanding text, and high stakes tests, and learn how to create meaningful graphic organizers that can be used prior to writing a summary. And finally, students will learn how to take notes from both structured lectures and reading material. The purpose of this course is to teach students various strategies in order to improve their overall comprehension of information from various different sources.

### **Rubber Band Brain: Cognitive Flexibility and You**

In this class, students will delve into the world of Cognitive Flexibility. Cognitive Flexibility, a.k.a. flexible thinking, is the ability to switch up one's thinking as the situation demands and plays a key role in all types of learning. This course will cover strategies for increasing students' ability to take different perspectives, shift priorities, and redirect attention from one thing to another. These skills will be practiced through a variety of games, class discussions, and journal entries. Upon conclusion of the course, students will be better equipped to handle all that school (and life!) has to throw at them.

### **What We Think About When We Think About Race**

In the current political climate, many students are feeling frustrated and helpless. They know that racism is wrong and that racism is all around them, but they don't know what to do about it. In this course, students will be exposed to the tenants of Anti-Racism through metacognition. Metacognition is the awareness of and ability to analyze one's thoughts and learning processes. First, students will learn about how people develop in terms of learning about race and racism. Then, they will delve into their thoughts, beliefs, and experiences about race and racism in the United States. Using metacognitive strategies, such as journaling and having critical conversations, students will interrogate those thoughts, beliefs, and experiences so that they can then explore how they are personally learning about race. Upon conclusion of the course, students will leave with a new understanding of race and how to be an anti-racist.

### **Techsploration: Educational Technology**

In this hands-on lab experience, students will explore technology tools to facilitate deeper learning/remembering/academic performance. Students will use and evaluate technology tools both during the lab and in their current classes. These tools will focus on supports for reading, writing, and executive functioning skills. Students will assess the learning curve, relate their usefulness to their learning styles and different learning modalities, and teach other class members how to use them. Course time will also include one-on-one coaching. This dynamic and collaborative component of the class will allow students to examine and evaluate technology tools from a personal perspective. Essential questions that will be explored throughout the experience include: Why should I use technology for school and life? What types of tech are out there? How do I evaluate tech to decide if it's really for me? How does tech help - it just seems like more work? What tech(s) meets which learning modalities? Can this help me succeed in life outside of/after Forman? Additionally, students will also delve into ethical questions that include: Is it really necessary if my teacher is teaching the right way? Stigma and judgment issues, accessibility and curriculum; "independent and appropriate" - do I really want to be independent? Do I really know my learning self?; fair is not always equal.

Resources to be utilized: SETT Framework; WATI; ATEval2Go; various hardware, apps, and software; CAST; SIFTS

### **EF Approaches for College Success**

In this course, students will gain insight into the ways in which executive functions can impact their experience in college. The goal of this course will be to prepare and build a greater sense of ownership of the ways in which students can take control of EF challenges as they transition to college and a much less structured environment. This modular course will consist of discussions, guest speakers, topical readings, as well as using different tools/technology to address EF challenges often experienced in college. The culmination of this course will be each student developing an action plan, which will be unique to their EF needs and the college they'll be attending. The intention of the topics/speakers that will be covered in this course is for the purpose of students building a greater sense of agency, that can lead to a successful transition to college. Course time will also include one-on-one coaching. This dynamic and collaborative component of the class will allow students to individualize topics covered in the mod.

**Executive Function Coaching*****11, 12, PGs by department recommendation***

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.

**Note:** EF Coaching is not a stand alone course. EF Coaches will work with Thinking and Writing, Perspectives in Learning and other teachers to arrange for students to be released to engage in coaching. EF Coaching candidates will also take a few EF Coaching-related modular courses.

## **PERSPECTIVES IN LEARNING DEPARTMENT COLLEGE COUNSELLING**

All students in grade 11 and 12 take two modular courses each year of Perspectives in Learning, which is designed to support all facets of decision-making and preparation for students' post-secondary future. Juniors take this two-term course in the spring semester. Seniors take it in the fall. This course is graded on a Pass/Fail basis and receives .5 credit.

### **Spring Semester**

#### **Perspectives in Learning I / Grade 11**

This course, which is divided into two intensive 3-week modular courses, is taken in the spring semester, is designed to work in unison with the college counseling process and help guide our students in successfully determining their postsecondary future. The goal of this course is to help students make informed and knowledgeable decisions regarding their future educational and career choices, along with providing them with a foundation of skills. The students will be provided tools to gain a better understanding of themselves as learners, so they are better able to identify and articulate their personal needs at the collegiate level. Incorporated into this unique curriculum are inventories assessing personality traits and interests, along with direct instruction on how to navigate the college research process. Over the course of a semester, there will be class time allotted to prepare students for standardized tests. At the end of the course, students will focus on crafting their college essay.