



The Packer Collegiate Institute 2016- 2017 Upper School Curriculum Guide

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WELCOME TO PACKER'S UPPER SCHOOL

Packer Upper School – Four-Year Overview

Packer's **Upper School** curriculum is designed to encourage each student to realize his or her highest level of achievement. Through an engaging academic program, a vibrant community, and an array of artistic programs, athletics, and clubs, students are enabled to extend their interests and cultivate their talents. Freshmen and sophomore students enter a prescribed program to ensure that they are confident and capable in critical analysis, reading, writing, mathematics, research, language, computer literacy, and study skills. Junior and senior years provide multiple opportunities to apply these skills through elective courses in areas of particular academic and creative interests.

The freshman year is organized around a study of major literary works, ancient civilizations, and the *FreshArts* course, which is an introduction to the fine and performing arts. Additionally, freshmen take an introductory physics course, a world language class, mathematics, and one semester of Everyday Computing (computer literacy and basic Computer Science), a one quarter health seminar. Freshmen also participate in Packer's peer support program.

The sophomore year focuses on the *American experience* from both an historical and a literary perspective. Chemistry, world language, mathematics, and health complete the required course of study for the grade. Students may also choose to pursue an elective course in the tenth grade. Some students elect to enroll in a second world language, journalism, a computer science course, or authentic science research through a multi-year "Introduction to Science Research Program," a visual, dance, or theater arts course to round out their second year of Upper School.

The eleventh grade program features Biology and a variety of electives in English and History. Students must complete at least one History elective designated a global skills course. Two History electives are required over the course of the junior and senior years. Students are required to take two semesters of English in both their junior and senior years. Independent study, School Year Abroad, Chewonki Semester School, High Mountain Institute, and cultural exchange programs are just a few of the special opportunities available for eleventh and twelfth grade students.

Students in their junior and senior years have increased flexibility in their academic schedules. Advanced Topics (AT) courses and upper level electives from each of the academic departments enable students to pursue particular strengths and talents.

Graduation Requirements

- Four credits of English
- Three credits of a World Language
- Three credits of Mathematics
- Three credits of History
- Three credits of Sciences
- Two credits of Elective Academics
- Two credits of Arts
- Four credits of Physical Education
- One credit of Health to be completed in the 10th grade; (The Health program also includes half semester long courses in the 9th and 12th grade.)
- Forty-five hours of School and Community Service

Special Programs

Advanced Topics and Accelerated Courses

Advanced Topics courses enable students to pursue subjects at the highest level of rigor offered at Packer. In addition to a student's grade record, the following criteria are used by teachers and Department Heads to make enrollment decisions for all Advanced Topics courses.

Attitude Towards Learning

Open-minded; intellectually curious
Consistently goes beyond expectations

Work Habits

Proficient in organization and time management
Well-developed work ethic; persistent
Takes initiative and ownership in learning

Membership in Learning Community

Listens and contributes
Demonstrates ability to work independently and collaboratively
Engages actively in the construction of knowledge

Competencies

Reads and writes with discernment and sophistication
Strong analytical and problem-solving skills
Strong oral presentation skills

Content Mastery in Related Discipline

Generates insights and connections independently
Achieved deep level of understanding of prerequisite content

Independent Study Program

Students in grades ten through twelve can participate in the Independent Study Program, in which students design a program for a specialized project or course of study over the period of one semester or an entire academic year. An independent study may not take the place of a course in Packer's curriculum guide.

Every independent study has a faculty mentor who is available to assist the student with completing a project proposal; mentor and student are expected to meet on a regular basis throughout the duration of the project. The mentor's role is to serve as a guide and resource.

The emphasis in this program is on *independent*; it is the student's responsibility to meet the deadlines and obligations of his/her program of study and the Independent Study program's general guidelines.

Students who participate in the Independent Study Program are responsible for writing a narrative comment at the conclusion of the first and third quarter and keeping the Independent Study coordinator apprised of their progress. At the end of the project, each student will determine, in conjunction with his/her mentor, if he/she has fulfilled the project's goals and determine a grade of pass or high pass.

Senior Thesis Program

Second semester seniors interested in pursuing a self-designed, in-depth study resulting in an important piece of original work may choose to participate in Packer's Senior Thesis Program. The purpose of the program is to promote the skills associated with independent, self-directed learning, and to reinforce essential behaviors linked to creative, original work. Students who participate in this program are afforded the opportunity to frame a research project based on their personal academic interests and area(s) of specialization.

Program Requirements

Senior Thesis Program participants will construct a research design that:

- utilizes both faculty and community resources;
- incorporates and considers printed material, multimedia resources, and Internet/on-line databases;
- results in a 30-minute presentation of findings to their classmates and members of the school community.

Senior Thesis presentations take place during the first week of Senior Term. Throughout the spring semester, program members are required to attend weekly meetings with their mentor and thesis workshops as announced. In addition, Senior Thesis members are required to write a third quarter comment detailing the progress of their study and future plans.

All projects are exhibited during the last two weeks of the semester. Senior Thesis applications are due in the fall of a student's senior year and require the approval of the class dean and program coordinator. Senior Thesis projects receive academic credit and are evaluated on a high pass, pass, or fail basis.

Second Semester Course Load

Students are expected to carry four academic courses including an English course in addition to the Senior Thesis. The project will be the equivalent of one-half course credit.

Course Descriptions

The course descriptions that follow represent a complete listing of courses offered in the upcoming school year (2015-2016). Some elective courses are taught every other year to ensure the widest array of choices is available to Packer students.

Please note that whenever a grade average is specified for course enrollment, student grades through the third quarter of the academic year are used as the standard for admittance.

Computer Science

Department Head: Jim Anderson

Packer's computer science curriculum is designed to offer students a variety of opportunities to become educated, competent, and confident computer users and informed digital citizens. Selecting from a range of courses, students can improve their ability to use the computer as a creative and problem-solving tool, study certain applications in depth, or pursue their interest in programming languages and the formal discipline of computer science. All courses aim to help students improve their capacity to think abstractly, analytically, and systematically. Furthermore, an emphasis on innovation and design provides a creative element to each course.

**Please note that courses without sufficient enrollment will not run.*

Ninth Grade Everyday Computing

Computer Science

820

Fall

Credit: 1

In addition to basic laptop orientation, *Everyday Computing* in the ninth grade will focus on learning to apply technology and Computer Science in students' everyday lives. A focus on building basic computer literacy skills is joined by an introduction into the power of algorithmic thinking, through programming, to solve real world problems using Computer Science. This required course for all ninth grade students prepares them to make safe, productive, and skillful use of their laptops in their classes throughout their time in Packer's Upper School. No prior programming knowledge is required.

Required for students in Grade 9

Computer Science Fundamentals

Computer Science 812 Fall Credit: .5

This course is an introduction to the discipline of computer science focusing on problem solving, software design, logic, Boolean algebra, and the principles of formal language theory. Students will design and construct software to solve increasingly interesting and challenging problems. They will also explore the historical framework of computer science, the nature of digital information, the evolution of the Internet and networking, and the cutting-edge technological issues affecting the world.

Skills will be developed in preparation for Advanced Topics in Computer Science (optional). No prior programming knowledge is required.

Available to students in Grades 10 through 12

Programming Mobile Apps for the Real World

Computer Science 810 Spring Credit: .5

Do you have an idea for the next killer app? Join Packer's app developers to learn how everything from the calculator to the Facebook app works on today's smartphones and tablets— then build your own! Previous programming experience is helpful but not required. Simply bring your imagination and motivation! Anyone can write an app.

Students will work at their own pace to develop custom software for use on iOS and Android smartphones and tablets. Through concept development, problem solving, app programming and interface design, students will learn Computer Science basics while creating their own apps.

Available to students in Grades 10 through 12

3D Game Development

Computer Science 840 Spring Credit: .5

This class examines the boundaries between the virtual and physical worlds. Students develop, import and modify virtual 3D objects using Unity, the dominant global game development software. The cross-platform Unity engine (Mac, PC, web, iOS, Android) is used in award winning, high profile games such as Monument Valley, Assassin's Creed Identity, Radial-G Racing, and more.

Students then program those objects, and their environment, with properties and rules for interaction using the C# programming language. This combination of tools provides students with a clear path to developing 3D prototypes while also teaching the fundamentals of game programming. The digital and analog eventually meet when students output virtual objects to a 3D printer.

Available to students in Grades 10 through 12

AT Computer Science**Computer Science****850****Full-Year****Credit: 1**

Does the NSA really track everyone's phone calls and emails? How does Facebook know whom to suggest as a new friend? Is there any privacy for a modern-day person? The digital world is as real as the real world. In the same way that we have archeologists making predictions about ancient creatures and civilizations, students will be able to make predictions about the profiles left in the digital world. This advanced computing course will allow students to explore a variety of advanced techniques in Computer Science through conducting thoughtful manipulation, analysis, and synthesis of large-scale datasets. Students will be able to write complex software solutions that involve building algorithms, data structures, and user interfaces.

Resources:

This course will require the use of several (Integrated Development Environment) IDEs including Greenfoot, Processing, and Eclipse.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in Advanced Topic and Accelerated Course Criteria (see page 5 of this Curriculum Guide)
- Permission of the department head
- Grade of B+ or above in Computer Science Fundamentals or A or higher in Advanced Precalculus (Math 448)

English

Department Head: Elissa Krebs

Through an intensive study of literature, the Upper School English curriculum seeks to instill in students an active curiosity about and appreciation for literature, human nature, and the world around them. Through close reading of works from a variety of genres and a range of time periods, students hone their critical reading, thinking, speaking, and writing skills. At each level, students write and revise often and engage in close readings of texts. The English department is committed to teaching a range of literature that includes work by authors both within and beyond the traditional literary canon, reflecting diversity of identities and genres.

Packer requires that students take English during each of their four years in high school. Ninth and Tenth Graders take yearlong courses focusing on age-appropriate literature and skills, while Eleventh and Twelfth graders enroll in two semester-long English electives. The only exception to the latter is that Eleventh and Twelfth Graders who qualify with an A- or above in their sophomore and junior English classes respectively and maintain that average until year's end can enroll in one of the Advanced Topics English courses, both yearlong classes, in place of English electives. However, students can only take AT English as their sole English class for one year. If they want to take a second AT English class in another year, they must take it in conjunction with two semester-long English classes.

First semester and yearlong journalism classes are open to tenth, eleventh, and twelfth grade students, in addition to their required English courses.

Grade Nine (Required)

Self-Expressions

English

110

Full-Year

Credit: 1

In this course, students explore issues of identity through literature and their own writing. In doing so, they develop the critical reading and composition skills necessary for their success in high school. Students examine diverse literary works about the nature of self and moral choice. Through class discussion as well as participation in dramatic scene work, students grow as critical readers. Students also develop techniques of self-expression in their writing, composing analytical and personal essays and imaginative pieces, including short fiction. Through peer-conferencing and other revision techniques, students learn that good writing involves rewriting.

Texts may include:

- *Macbeth*, Shakespeare
- *Persepolis*, Marjane Satrapi
- *One Flew Over the Cuckoo's Nest*, Ken Kesey

Grade Ten (Required)

The American Experience

English

120

Full-Year

Credit: 1

Using the essential question “What does it mean to be an American?” the American Experience course explores the literature of the United States from the voices of the early Americans to the present day. The literature chosen reflects diverse voices and the many ways of interpreting the experience of being an American. Students are given the opportunity to write in a variety of forms, but the course emphasizes the analytical essay. Students study grammar and vocabulary throughout the year.

Texts may include:

Works by Nathaniel Hawthorne, Ralph Waldo Emerson, Henry David Thoreau, Walt Whitman, Emily Dickinson, Kate Chopin, Sui Sin Far, Frederick Douglass, F. Scott Fitzgerald and James Baldwin.

Grade Eleven

Students are required to take one elective in English during both the fall and spring semesters of Eleventh Grade*, choosing from a variety of elective courses that offer diversity in both genre and voice. Though the content in the courses varies, all Eleventh Graders will be required to read thoughtfully and reflectively and to write in a variety of ways. All courses include emphasis on improving analytical writing skills; an interdisciplinary approach to literature; and the opportunity for students to design at least one of their assessments.

*Eleventh Graders who meet the criteria may enroll in Advanced Topics English in place of or in addition to semester electives.

New Traditions in Contemporary Literature

English

150

Fall

Credit: .5

Here's a riddle: how on earth can a paragraph be poetry? How might an essay be lyric? Who would write a novel all in verse? Or in letters? Is it possible to "braid" an essay like hair? Welcome to the world of blended genre writing! This course is ultimately an exploration of contemporary writing that defies traditional genre categorization and is instead a new and unique blending of artistic form with thematic function. Over the course of the semester, students will study a variety of works by diverse writers and learn the ins and outs of prose poetry, lyric essays, poetry in series, novels in verse, braided essays, flash fiction, nonfiction—and a lot more! We'll examine deeply the techniques being used and the stylistic choices being made in each work, and will do a good bit of writing ourselves, both analytic and creative. In short, if you're interested in learning more about writers who don't play by the rules, this is the course for you.

Classical Literature of Greece

English

147

Fall

Credit: .5

This course will explore literature related to major Greek gods and goddesses, heroes, and monsters. Our studies will take us to the top of Mount Olympus, the battlefields of the Trojan War, and the depths of the Underworld. We'll meet feisty deities, fierce warriors, and fearless heroes who don't think twice about battling nine-headed serpents and horned beasts. As we read ancient Greek myths, drama, and epic poetry, we will explore the relevance of these stories to both ancient Greek culture and modern society. What do these ancient stories reveal about human nature, relationships, values, and culture? How have artists, poets, and musicians interpreted these stories? How are these stories relevant to our lives today? While the focus of the course will be on ancient Greek mythology, we will consider other world myths and legends.

Texts may include:

- *The Iliad*, Homer
- *Antigone*, Sophocles
- *Electra*, Euripides
- *Oedipus*, Sophocles

African-American Literature

English

165

Fall

Credit: .5

From Homer to hip hop, one can see the legacy of oral tradition throughout our culture. This course will explore this legacy through the lens of the African diaspora. As slavery scatters many African peoples across the globe, survival comes in the power of the word. Traveling from slave ships to the front row at the Barclays Center, this class will explore how elements of Africa merge with other cultures to form African-American and Caribbean literature. We'll learn how the campfire tales of a mischievous monkey in Nigeria start to hop onto the page as the tales of Brer Rabbit. We'll witness the aftermath of an escaped slave's struggle to free her children, whatever the cost, and how the telling of her tale is as important as living it. We'll witness how a cheeky Creole boy in Martinique learns to navigate the dangerous and uncharted waters of his French-speaking school. Additionally, we'll look at the roots of rap and hip hop.

Texts may include:

- *Beloved*, Toni Morrison
- *School Days*, Patrick Chamoiseau
- The Tales of Brer Rabbit
- African folk tales
- Poetry, rap, and hip-hop

Natural Selections: Literature, History and Politics of the Environment
English 167 Fall Credit: .5

From its foundations in the Transcendental Movement, nature writing has helped shape how Americans perceive and relate to the non-human world. Through readings, class discussions, and written work, as well as field trips and day hikes, this course will examine the various ways Americans have envisioned “the natural” and how they have tried to put those visions into practice

Four Essential Questions:

- 1) How have the roots of the environmental movement shaped contemporary environmental discourse?
- 2) How have Americans imagined nature, and how have those constructions shaped environmental policy?
- 3) How do contemporary depictions of nature affect our relationship to the environment?
- 4) How are race, class, and gender inflected in these and other questions of environmental imagination and policy?

By exploring the recent history, literature, and culture of the twentieth-century “environmental movement,” we will begin to understand how contemporary environmental problems and solutions come from our shared (and often divisive) environmental past.

Authors may include:

John Burroughs, John Muir, Aldo Leopold, Edward Abbey, Rachel Carson, N. Scott. Momaday, Annie Dillard, David Quammen, and Elizabeth Kolbert.

Available to students in Grades 11 and 12 for history or English credit

Literature and Adaptation

English

149

Spring

Credit: .5

Witness what happens when Little Red Riding Hood hops into the car of a mysterious stranger and how Winnie the Pooh contemplates Taoism between gulps of honey. Welcome to the world of adaptation. This course will examine the ways in which stories are told and retold, across time periods, cultures, and genres. We will look at how different versions of different tales reflect the values and attitudes of a time. In addition, we will observe how a story is influenced by form, exploring how a change in medium shapes our understanding of a work.

Texts may include:

Winnie-the-Pooh; *The Tao of Pooh*; *Into the Wild*; Grimm's *Fairy Tales*; "Brokeback Mountain"; excerpts from Shakespeare, the Romantic poets, and musical selections.

**In this course, we may view films rated R.*

Romantic and Victorian Era Literature

English

151

Spring

Credit: .5

This course will explore the themes of romance, love, passion, and desire in European poetry and literature; specific emphasis will be placed on 18th- 20th Century works. We will meet characters that tested or shunned social mores and expectations in an attempt to find true love and those for whom the search for love proved painful and elusive. We will witness marriages born of love in contrast to business contracts sealed with a wedding ring. We will witness the triumphs of requited love as well as the great tragedies of unrequited love, spurned romances, and hapless lovers. Emphasis will be placed on understanding changing historical, cultural, and social climates, as well as examining the shifting attitudes and expectations about gender roles, heterosexual and homosexual relationships, sex, romance, and the institution of marriage. How and when did twelve acres of land evolve into a dozen red roses?

Authors may include:

Emily Bronte, Oscar Wilde, and Jane Austen, as well as a variety of short stories and poems.

Literary Memoir**English****153****Spring****Credit: .5**

Literary Memoir is a course for students interested in exploring this exciting and burgeoning genre and its roots: the natural human drive to document both existence and experience. During this semester-long study, students will read and analyze a variety of contemporary, book-length memoirs and have the opportunity to discuss and critique them as thematic works of literary, creative nonfiction. Writing instruction and practice will include a study of literary elements/techniques, self-characterization, personal interview, and research for writers.

Students will compose a number of analytical and creative essays in response to the reading and discussions and finish the course with a fully processed, longer piece that may serve as a chapter or excerpt from their own literary memoir project.

Advanced Topics in English**Advanced Topics in English: Unconventional Narratives****English****160****Year****Credit: 1**

What happens when the story of a novel is told by all of its characters and not just one? How do we decide what's true when faced with different versions of the same event? What's it like when a play starts at the end of the story and traces back to the beginning? Why do some poets write in traditional forms and others create their own? In this Advanced Topics course, we will study writers and works that depart from the traditional, reading poetry, novels, and drama that play with structure and story-telling and that offer multiple perspectives. You will experiment with writing that goes beyond traditional literary analysis, learn advanced research techniques, study how and why authors experiment with form, and consider how alternative narrative structures might affect your favorite works of literature.

Available to Grade 11 students who meet prerequisites:

- A- average through Tenth Grade English
- Approval of their English teacher and dean

Placement decisions will be made by the English department head in consultation with English teachers, the AT English instructor, and the class dean.

Advanced Topics in English: War Stories

English

168

Year

Credit: 1.0

History may, as Winston Churchill asserted, be written by the victors, but what about literature? Are literary stories of war, too, told by the winners? Reading plays set during actual conflicts in three centuries and on two continents, poetry, and other works, we will ask: What is the relationship between literature and history? What is the playwright's responsibility in depicting actual events? Is it okay to slant historical facts to present a certain view of an event or historical figure? How does perspective determine what is "true" about an historical event? Among other works, we will read Shakespeare's *Henry V*, Bertolt Brecht's *Mother Courage*, and Lynne Nottage's *Ruined* and examine the depiction of war in poetry, visual art, and film. You will learn advanced research techniques as you research the history of the events in the works, prepare class presentations, analyze the literature, and design your own creative assessments.

Available to Grade 11 students who meet prerequisites:

- A- average through Tenth Grade English
- Approval of their English teacher and dean

Placement decisions will be made by the English department head in consultation with English teachers, the AT English instructor, and the class dean.

Grade Twelve

Twelfth grade students are required to take one elective in English during both the fall and spring semesters of their senior year*. Each year, members of the English department offer a variety of elective courses in writing, both fiction and nonfiction; in film; and in literature.

The rigor of these courses encourages students to be engaged in critical reading, to take intellectual risks, and to exhibit autonomy in designing assignments, crafting thesis statements, writing and seeking constructive criticism on paper drafts, and, where appropriate, augmenting their written analysis with research from secondary sources.

* Twelfth Graders who meet the criteria may enroll in Advanced Topics English in place of semester electives, as long as they have taken two semester-long English classes in Eleventh Grade.

Classical Journeys in Literature

English

164

Fall

Credit: .5

Seductive women who lure men to their watery deaths and flatterers buried for all eternity up to their eyeballs in excrement: sound like a commercial for a modern reality TV show? Look again – these are the ingredients of which the classics are made. In this course, we will explore two of the great classical journey novels, beginning in Ancient Greece with Homer’s *Odyssey* and ending in the depths of hell with Dante’s *Inferno*. This course will look at these classical journeys and examine how both works give insight into their own time and yet hold sustaining relevance to modern society as well.

Science Fiction as Literature

English

146

Fall

Credit: .5

Imagine a world in which your laptop has feelings, and you can travel back in time and even resurrect the dead. Welcome to the world of science fiction. Though often viewed as a more contemporary fictional genre, in fact, science fiction has literary roots that go as far back as the 1600s. In this course, we will trace the development of science fiction as a literary genre and also explore the myriad issues raised by the mixture of science and speculation. Fasten your seatbelts as we travel to warp speed with a crazed Swiss scientist who seeks to reanimate the dead (Mary Shelley’s *Frankenstein*); a troubled young man who believes his dreams can change reality (Ursula Le Guin’s *The Lathe of Heaven*); and a computer that seemingly takes on a life of its own during a space mission (Stanley Kubrick’s *2001: A Space Odyssey*). In each of these narratives, and in all of the stories we will explore together, we will also examine the ways in which these narratives shed insight on our present-day world—in particular, how technology intersects with and informs the ways in which race, gender, class and sexual orientation operate in a society.

*In this course, we will view films rated R.

Dostoevsky**English****148****Fall****Credit: .5**

We will read Dostoevsky's psychological masterpiece *Crime and Punishment*—a novel about a university drop-out who commits an “experimental” murder. In Dostoevsky's in-depth treatment, this ultimate act of defiance tests the existence of God, the meaning of good and evil, the nature of justice, and the make-up of the human psyche. In the second half of the course, students will read short works of fiction thematically related to *Crime and Punishment*, including *Dr. Jekyll and Mr. Hyde* (also about a fundamental split in the psyche) and Camus' *The Stranger* (also about alienation from humanity), as well as a short work of Russian fiction written by a contemporary of Dostoevsky.

New York City in Literature**English****154****Fall****Credit: .5**

New York City in Literature explores the evolution of the New York character through literary, social, and historical texts. Through reading, writing (formal & personal essays - of which there are several papers and a number of written responses – poetry, short fiction, literary analysis, and dramatic exercise), and lively discussion, together we investigate the recurring themes of identity & personal journey, both metaphorical and literal, in the New York experience.

Essentially, through the lens of New Historicism, we attempt to wrangle with New York as its own literary and cultural organism.

Authors may include:

Walt Whitman, Herman Melville, Jacob Riis, Stephen Crane, Edith Wharton, Langston Hughes, James Weldon Johnson, Dorothy Parker, Bernard Malamud, Frank O' Hara, Amiri Baraka, and Jay McInerney.

Creative Non-fiction Writing in the Digital Age**English****152****Fall****Credit: .5**

Reports of the demise of print may be exaggerated, but we can't argue with the rise of digital publishing. In this course, we'll create our own online magazine, packed with features that you'll write, research, design, and publish, all on topics of your choice. Interested in food? *Write a restaurant review*. Like sports? Pen an athlete's profile or argue for a rule change. *Immersed in the election?* Examine issues of local, national, or international importance. What we publish is up to you, and along the way, you'll learn every step of publishing on the *internet*. You'll write as professional writers do: getting feedback, revising, *and* considering audience, and *you'll learn advanced research methods along with literary techniques so that you can write absorbing, relevant, entertaining prose*.

African-American Literature**English****165A****Fall****Credit: .5**

From Homer to hip hop, one can see the legacy of oral tradition throughout our culture. This course will explore this legacy through the lens of the African diaspora. As slavery scatters many African peoples across the globe, survival comes in the power of the word. Traveling from slave ships to the front row at the Barclays Center, this class will explore how elements of Africa merge with other cultures to form African-American and Caribbean literature. We'll learn how the campfire tales of a mischievous monkey in Nigeria start to hop onto the page as the tales of Brer Rabbit. We'll witness the aftermath of an escaped slave's struggle to free her children, whatever the cost, and how the telling of her tale is as important as living it. We'll witness how a cheeky Creole boy in Martinique learns to navigate the dangerous and uncharted waters of his French-speaking school. Additionally, we'll look at the roots of rap and hip hop.

Texts may include:

- *Beloved*, Toni Morrison
- *School Days*, Patrick Chamoiseau
- The Tales of Brer Rabbit
- African folk tales
- Poetry, rap, and hip-hop

Natural Selections: Literature, History and Politics of the Environment

English

167

Fall

Credit: .5

From its foundations in the Transcendental Movement, nature writing has helped shape how Americans perceive and relate to the non-human world. Through readings, class discussions, and written work, as well as field trips, day hikes, this course will examine the various ways Americans have envisioned “the natural” and how they have tried to put those visions into practice

Four Essential Questions:

- 1) How have the roots of the environmental movement shaped contemporary environmental discourse?
- 2) How have Americans imagined nature, and how have those constructions shaped environmental policy?
- 3) How do contemporary depictions of nature affect our relationship to the environment?
- 4) How are race, class, and gender inflected in these and other questions of environmental imagination and policy?

By exploring the recent history, literature, and culture of the twentieth-century “environmental movement,” we will begin to understand how contemporary environmental problems and solutions come from our shared (and often divisive) environmental past.

Authors may include:

John Burroughs, John Muir, Aldo Leopold, Edward Abbey, Rachel Carson, N. Scott Momaday, Annie Dillard, David Quammen, and Elizabeth Kolbert.

Available to students in Grades 11 and 12 for history or English credit

Writing about Film

English

142

Spring

Credit: .5

No less than books, movies are texts and works of art, rich in meaning, character, *technique*, and theme. They entertain, instruct, disturb, and provoke us, and in this class, we’ll examine movies that do all of that, and more. Learning about cinematography and technique, we’ll examine how directors and actors bring their ideas and interpretations to life, “reading” films much as we do literature. Assignments will include film journals, a variety of writing assignments, and a self-designed final project.

*In this course, we will view films rated R.

Creative Writing: Short Fiction**English****169****Spring****Credit: .5**

In Creative Writing: Short Fiction, students will be given the opportunity to develop their voices by studying the mechanics of fiction; engaging in various writing exercises, including mimicking styles of published authors; developing pieces based on prompts; writing in groups; and writing on specific themes, etc. As the course is grounded in a workshop setting, with two ten-to-fifteen page stories due, one per quarter, as well as being responsible for writing responses to their peers' work throughout the semester, students in Creative Writing: Short Fiction experience a comfortable and productive atmosphere rooted in creativity, constructive criticism, and intellectual daring.

Latin American Literature (in translation)**English****145****Spring****Credit: .5**

The biggest literary explosion of the 20th century, the Latin American "Boom," produced such writers as Juan Rulfo, Gabriel Garcia Marquez, and Julio Cortazar. During the course of the semester, we will read each of these Boom writers, looking at Garcia Marquez's masterpiece *100 Years of Solitude* (where beautiful women fly to heaven while hanging sheets and people live for 145 years), Juan Rulfo's *Pedro Paramo* (where a series of narrators speak from the grave), short stories of Cortazar (where people transform into salamanders), and *Rosa* (where a father takes to the river for 40 years). Finally, we will end with the extraordinary poetry of Pablo Neruda: his impassioned love poems, his odes to socks (best literature ever on that piece of clothing), and his poems of political protest.

Modern World Poetry**English****163****Spring****Credit: .5**

Every culture known has made poetry, and in modern times, poetry has boomed all around the globe. We will read, declaim, interpret, perhaps sing, paint, film, and dance *modern and contemporary* poetry from Egypt, Russia, France, Turkey, China, Chile, Nigeria, Jamaica, Israel, Palestine, and Poland, as well as from America. We also will explore the lives of the poets who demolished conventions, who dreamt up images no one had ever seen, who gave voice to the experience of being a woman, or the experience of being a people that nations refused to recognize; poets who even *died* or landed in jail because of their poetry (and one, the winner of the 2012 Nobel Prize for Literature, Liu Xiaobo, is there still); poets who, regardless of their origin, have been true to their voice and kept faith with their art.

Poets whom we will read will include:

T. S. Eliot, Guillaume Apollinaire, Vladimir Mayakovsky, C. P. Cavafy, Anna Akhmatova, H.D. (Hilda Doolittle), Adrienne Rich, Wislawa Symborska, Mahmoud Darwish, Nizim Hikmet, and Yehuda Amichai.

Comedy and Satire**English****157****Spring****Credit: .5**

Comedians such as Stephen Colbert, Louis C.K., and Sarah Silverman are modern practitioners of a longstanding tradition: using humor to criticize the shortcomings and vices of society. One good joke can do more damage than ten serious speeches. In this course, we will examine the history of satire from ancient times to the present. Working not with swords but with pens, the writers we will study have delightfully and boldly attacked political hypocrites, pompous elites, war mongers, and misogynists, just to name a few. The skilled satirist is perhaps more feared by those in power than any other foe; in this course, we will learn why.

Texts may include:

Jonathan Swift's *A Modest Proposal* and excerpts from his novel *Gulliver's Travels*, Joseph Heller's novel *Catch 22*, Molière's 17th century French farce *Tartuffe*, Horace's *Satire and Epistles*, Stanley Kubrick's iconic film *Dr. Strangelove*, *The Simpsons*, *The Onion*, *Monty Python*, and much more.

Literature and Adaptation**English****117****Spring****Credit: .5**

Witness what happens when Little Red Riding Hood hops into the car of a mysterious stranger and how Winnie the Pooh contemplates Taoism between gulps of honey. Welcome to the world of adaptation. This course will examine the ways in which stories are told and retold, across time periods, cultures, and genres. We will look at how different versions of different tales reflect the values and attitudes of a time. In addition, we will observe how a story is influenced by form, exploring how a change in medium shapes our understanding of a work.

Texts may include:

Winnie-the-Pooh; *The Tao of Pooh*; *Into the Wild*; Grimm's *Fairy Tales*; "Brokeback Mountain"; excerpts from Shakespeare, the Romantic poets, and musical selections.

*In this course, we may view films rated R.

Advanced Topics in English: Unconventional Narratives

English 160

Year

Credit: 1.0

What happens when the story of a novel is told by all of its characters and not just one? How do we decide what's true when faced with different versions of the same event? What's it like when a play starts at the end of the story and traces back to the beginning? Why do some poets write in traditional forms and others create their own? In this Advanced Topics English, we will study writers and works that depart from the traditional, reading poetry, novels, and plays that break new ground, that play with structure and story-telling, and that offer multiple perspectives. Assignments will include traditional literary analysis, research into writers' processes, and creative experimentation with well-known works of literature.

Available to Grade 12 students who meet prerequisites:

- A- average through Eleventh Grade English
- Approval of their English teacher and dean

Placement decisions will be made by the English department head in consultation with English teachers, the AT English instructor, and the class dean.

Advanced Topics in English: War Stories

English 168

Year

Credit: 1.0

History may, as Winston Churchill asserted, be written by the victors, but what about literature? Are literary stories of war, too, told by the winners? Reading plays set during actual conflicts in three centuries and on two continents, poetry, and other works, we will ask: What is the relationship between literature and history? What is the playwright's responsibility in depicting actual events? Is it okay to slant historical facts to present a certain view of an event or historical figure? How does perspective determine what is "true" about an historical event? Among other works, we will read Shakespeare's *Henry V*, Bertolt Brecht's *Mother Courage*, and Lynne Nottage's *Ruined* and examine the depiction of war in poetry, visual art, and film. You will learn advanced research techniques as you research the history of the events in the works, prepare class presentations, analyze the literature, and design your own creative assessments.

Available to Grade 12 students who meet prerequisites:

- A- average through Eleventh Grade English
- Approval of their English teacher and dean

Placement decisions will be made by the English department head in consultation with English teachers, the AT English instructor, and the class dean.

Journalism

The journalism program consists of three courses and provides the opportunity for students to specialize in either print or video journalism, if they so choose. The first course, Introduction to Journalism, provides a foundation and is required for entry into Print Journalism and Video Journalism. Students in Print Journalism produce *The Prism* student newspaper; students in Video Journalism contribute pieces to *The Prism's* online publication.

Introduction to Journalism

English 115/116 Semester (Fall or Spring) Credit: .5

In this course, students will learn basic journalism skills, techniques and practices, including how to determine newsworthiness, cover events and issues, gather information, develop and interview sources, organize material and write news and feature pieces. They will learn the rudiments of writing for publication, paying attention to the reporter's responsibility to fairness, accuracy and objectivity.

Students will share space and time with Print Journalism students engaged in the publication of *The Prism*.

Available to Grades 10, 11 and first semester 12th grade students.

Print Journalism (two options)

English 161 Fall Credit: .5

English 162 Spring Credit: .5

Students in Print Journalism will apply knowledge and hone reporting and writing skills learned in Introduction to Journalism as they produce the monthly student newspaper. In addition, they will master the practical aspects of putting out a paper on deadline: how to conceive and assign stories, develop coverage, define photography/art, edit peer work, design/lay out pages, craft headlines and subheads, etc.

Student editors will act as mentors to Introduction to Journalism students.

Available to Grades 10, 11 and 12 who meet prerequisites:

- Introduction to Journalism

Video Journalism (two options)

Arts 633/634 Fall/Spring Credit .5

English 166/170 Fall/Spring Credit .5

This course is for budding videographers, journalists, and documentarians who have already taken Introduction to Journalism or Video Journalism. Students will continue to learn the fundamentals of broadcast journalism and video production to create video broadcast reports on current issues of interest and concern to the Packer community. Stories will be published routinely on *The Prism* website, providing opportunity for collaboration with *The Prism* editors.

Available to Grades 10, 11 and 12 who meet prerequisites:

- Introduction to Journalism or Video Journalism

World Languages

Department Head: Danielle Pappas

The faculty of the World Language Department is committed to providing a curriculum through which students develop the skills necessary for comprehension and effective communication in Spanish, French, Latin, and Mandarin Chinese. In addition, our faculty believes that the study of people and culture is critical to the appreciation of a language. Therefore, appropriate historical and cultural material is integrated into the curriculum at each level of the program.

Packer requires students to complete three consecutive years of language study in either Spanish, French, Chinese or Latin to fulfill the World Language graduation requirement. Each successive level of instruction is aimed at building upon the skills of the previous year. Please note the established prerequisites for each course beyond the introductory level.

Upon entering the Upper School, students who are new to Packer are required to complete a placement examination that is used to determine their language proficiency, while returning Packer students are placed according to their Middle School teacher's recommendations. Students entering the ninth grade may opt to choose a new language, space permitting.

Please note that Upper School students with documented language-based learning differences may qualify for one or more of the following accommodations:

World Language Waiver: A World Language waiver releases the student from the school's World Language graduation requirement. This waiver may be requested at the beginning of any school year in which the student is enrolled in the Upper School, or by special permission from the Upper School administration. Students awaiting a language waiver are expected to replace their language course with an additional academic course.

Pass/Fail Option: The pass/fail grading option allows a student to enroll in a language class for credit that will be granted on a pass/fail basis. Students pursuing the pass/fail option must fulfill the following expectations in order to pass the course:

- Students must make an effort to participate regularly in class.
- Students must earn a minimum average of 60% on all homework, quizzes and tests.

Included within this option are accommodations appropriate to the development of both oral and written work. Spelling accommodations can be granted only to those who exercise the pass/fail option.

Course for Grade: Some Packer students with language-based learning differences will elect to enroll in a World Language class for a grade. It is important that students and families understand that when students elect to take a course for a grade, they will be assessed according to the same standards as other students in the class. They will earn a grade based on their mastery of the course content alone.

The routine accommodations of extended time, tests on computers and preferential seating will continue to be offered to students who qualify. Please take time to discuss each of these options with a member of the World Language Department, your child's dean, and a learning skills specialist in order to select the option that best fits your child's individual needs. All decisions are binding for the duration of the school year, unless appealed to the Upper School Head or his representative.

Spanish

Spanish I. Introduction to Spanish

Spanish

228

Full-Year

Credit: 1

This Upper School course is an introduction to the Spanish language. While acquiring a solid, basic vocabulary, the beginner will exercise the four skills necessary for the mastery of language: listening, speaking, reading, and writing. The course will combine a communicative approach with a solid grammar base, enabling beginning students to express themselves.

Appropriate readings from authentic sources, communicative activities, and cultural presentations will serve to enhance student learning.

Text: Puntos De Partida

There is no prerequisite; students elect to take this course or are placed in it based on their placement test scores.

Spanish II. Intermediate Spanish

Spanish

227

Full-Year

Credit: 1

This course builds upon the skills learned in Spanish 1. Students will learn new and more advanced grammar, expand their vocabulary and continue to develop their communicative skills. Students will be introduced to authentic literary texts that will serve as a basis for vocabulary acquisition, brief writing assignments, and in-class discussion.

Text: Puntos De Partida

Available to students who meet prerequisites:

- for Upper School students: Spanish I
- for Middle School students: Spanish 100 or Spanish 200

Spanish III. Advanced Grammar**Spanish****238****Full-Year****Credit: 1**

Spanish III students progress from an intermediate to an advanced level in Spanish. This course promotes the advanced active use of Spanish in culturally authentic contexts as students are introduced to short readings as a means of analyzing grammar in context and building their vocabulary. Written and oral summaries of readings, together with classroom discussion and extensive grammatical analysis, provide a springboard for the student's development in the target language.

Available to students who meet prerequisites:

- for Upper School students: Spanish II
- for Middle School students: Spanish 200

Spanish IV: Reading, Composition, and Conversation**Spanish****247****Full-Year****Credit: 1**

This course provides a context for continued development of language skills and cultural understanding. Activities and materials relate to contemporary topics in the Hispanic world, literary themes, political movements, historical events, and other content areas beyond the Spanish classroom. This course helps develop skills in sustained reading of articles, stories and short novels and analytical composition writing. In addition, there is emphasis on the development of fluency and accuracy in oral and written communication. Students engage in class discussion and debate to increase their vocabulary and raise the level of their speaking and comprehension skills in Spanish. Participation in the target language is required at all times.

Available to students who meet prerequisites:

- Spanish III

Spanish V: Language, Literature, and Culture**Spanish****258****Full-Year****Credit: .1**

In Spanish V, Advanced language usage will be implemented through increased study of authentic Spanish language materials such as films and literature. Students will utilize their language skills through class presentations, debates, discussions, and projects. Grammar will be taught in context by exploring language structure through the lens of literature and a variety of contemporary themes. Individual and group activities, are emphasized to enhance the active use of the language. Participation in the target language is required at all times.

Available to students who meet prerequisites:

- Spanish IV or permission from the Department Head

Advanced Topics in Spanish Literature and Culture (Offered in 2016-2017)

Spanish 259 Full-Year Credit: 1

The Advanced Topics Spanish Literature and Culture course uses a thematic approach to introduce students to texts such as short stories, novels, poetry and essays from Peninsular Spain, Latin America, and the United States. Students continue to develop proficiencies across the full range of skills, honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media such as art, film, articles and literary criticism.

Available to students who meet prerequisites:

- Spanish IV, Spanish V, or permission from the Department Head

Advanced Topics in Spanish Literature and Culture (Offered in 2017-2018)

Spanish 257 Full-Year Credit: 1

In this class students will work to expand, refine and put to use their already advanced Spanish language skills through the study of a series of thematic units exploring the issues, ideas, and attitudes most compelling to the contemporary Spanish speaker in today's world. Working with an array of authentic texts, audio and other materials, students will study advanced vocabulary and grammar constructs across a variety of registers, using the context to help shape their comprehension. In addition, students will analyze how language affects perception and perspective and be invited to challenge common preconceptions and assumptions from a native Spanish speaker's point of view. While the extensive use of present day source materials (e.g., press reports from print, radio, film, television and Internet sources) certainly brings a contemporary focus to the coursework, selected historical texts (both literary and scholarly in nature) will also be studied to further broaden the context of the concepts being investigated.

Available to students who meet prerequisites:

- Advanced Spanish IV, Spanish V, or permission from the Department Head

French

French I. Introduction to French

French **214** **Full-Year** **Credit: 1**

This course is an introduction to the French language. Students will acquire basic vocabulary and grammar. The course utilizes a communicative approach to enable beginning students to express themselves in both oral and written French. Readings from authentic sources enhance student understanding of Francophone culture.

There is no prerequisite; students elect to take this course or are placed in it based on their placement test scores.

French II. Intermediate French

French **220** **Full-Year** **Credit: 1**

This course builds upon the skills learned in French I. Students will learn new and more advanced grammar, expand their vocabulary, and continue to develop their communicative skills.

Available to students who meet prerequisites:

- for Upper School students: French I
- for Middle School students: French 100 or French 200

French III. Advanced Grammar

French **230** **Full-Year** **Credit: 1**

French III is an intensive grammar course with a particular focus on the verb tenses, from the present to the subjunctive. This course promotes the advanced active use of French in culturally authentic contexts as students are introduced to short readings as a means of analyzing grammar in context and building their vocabulary.

Available to students who meet prerequisites:

- for Upper School students: French II
- for Middle School students: French 200

French IV Reading, Composition, and Conversation**French****241****Full-Year****Credit: 1**

In French IV, students enhance their skills in reading, writing, listening and speaking. This course helps develop skills in sustained reading of articles, stories and short novels and analytical composition writing. In addition, there is emphasis on the development of fluency and accuracy in oral and written communication. Students engage in class discussion and debate to increase their vocabulary and raise the level of their speaking and comprehension skills in French.

Available to students who meet prerequisites:

- French III

French V**French****251****Full-Year****Credit: 1**

In French V, advanced language usage will be implemented through increased study of authentic materials in French such as films and literature. Students will utilize their language skills through class presentations, debates, discussions, and projects. Grammar will be taught in context by exploring language structure through the lens of literature and a variety of contemporary themes. Individual and group activities, are emphasized to enhance the active use of the language. Participation in the target language is required at all times.

Available to students who meet prerequisites:

- French IV

Advanced Topics Course: Revolt and Identity (Offered in 2016-2017)

Révolte et identité : la montée et la chute de l'Empire colonial français.

French

242

Full-Year

Credit: 1

This advanced French language, literature and history course focuses on two major regions of the French colonial empire: North America and the Caribbean. In addition to further developing the grammar studied in context, this course will delve deeply into Francophone history, drawing comparisons between colonial struggles in different parts of the world and the consequences and outcomes of those struggles. Students in this course study advanced grammar structures as well as sophisticated vocabulary in the context of the texts. They also acquire knowledge of the different literary terms and techniques necessary for analyzing literature, and refine their persuasive and analytical composition-writing skills.

Available to students who meet prerequisites:

- French IV, French V, or permission from the Department Head

Advanced Topics Course: The Stranger (2017-2018)

Toujours l'étranger : l'autre dans la littérature française

French

240

Full-Year

Credit: 1

This advanced French language and literature course, taught exclusively in French, will focus on the theme of "the stranger" in three major texts : *Moderato Cantabile* by Marguerite Duras, *Pierre et Jean* by Guy de Maupassant, and *Mondo* by J.M.G. LeClézio. The course will expose students to the social, historical, and cultural contexts of the texts, offering a rich interdisciplinary approach to the study of literature. Poetry, visual art, and source materials (e.g., film, music, articles, historical documents) will be used to establish the varying contexts and develop a deeper understanding of Francophone history and culture. Students in this course will study advanced grammar structures as well as sophisticated vocabulary in the context of the texts. They will also acquire knowledge of the different literary terms and techniques necessary for analyzing literature, and refine their persuasive and analytical composition-writing skills.

Prerequisite: French IV or V

Latin

Latin I

Latin

218

Full-Year

Credit:1

This Upper School course is an introduction to the Latin language. For the purpose of enriching the student's vocabulary, the course will emphasize the study and memorization of Latin vocabulary and its roots and derivations. The class will increasingly focus upon identifying parts of speech and using basic grammatical forms and functions in Latin as a means to improve reading fluency. Within the context of narrative reading passages, students will encounter the various types of nouns, their inflected endings, and the different tenses of verbs that occur in Latin. This introduction to the nuances of the Latin language will be accompanied by an emphasis on the rich historical and cultural aspects of antiquity.

There is no prerequisite; students elect to take this course or are placed in it based on their placement test scores.

Latin II

Latin

225

Full-Year

Credit: 1

This Upper School course is a continuation of all basic skills introduced and mastered in Latin I. During the course of the year, students further their exploration of the grammatical forms and functions of the Latin language, developing and sharpening their ability to read Latin with comprehension, to translate with accuracy (both from and into Latin), and to analyze grammatically the structural components of a Latin sentence. Analogies to English grammar will be plentiful. New vocabulary, grammar, and syntax are studied within the meaningful context of extended passages of Latin prose. Word study and a focus on the culture and history of Rome reinforce the connection between Latin and English and the link between Roman civilization and ours.

Text: *Ecce Romani Book 2*, Lawall, et al.

Available to students who meet prerequisites:

- Latin I or permission from the Department Head

Latin III**Latin****235****Full-Year****Credit: 1**

This intermediate Upper School course is a continuation of all the skills mastered in previous Latin courses. Students will continue to develop and sharpen their ability to read Latin with comprehension, to translate with accuracy (both from and into Latin), and to analyze grammatically the structural components of a Latin sentence as presented within the context of patterned sentences and continuous passages. The more advanced structures of Latin grammar are introduced through and reinforced by the reading of authentic Latin authors, including Caesar, Cicero, Pliny, Catullus, Martial, Vergil, and Ovid. Students engage in more in-depth historical and cultural studies of Rome and the development of Latin literature as these topics emerge from the readings. For the purpose of enriching the student's English vocabulary, the course will emphasize the etymology and derivations of the Latin vocabulary encountered.

Text: *Latin, Sixth Edition*, Wheelock

Available to students who meet prerequisites:

- Latin II

Latin IV**Latin****265****Full-Year****Credit: 1**

This advanced Upper School course combines a survey of Latin literature with a review of upper level grammar. Students develop their comprehension, facility and analytic skills as they aim at increased accuracy in translating a range of authors and genres. Historical and cultural topics serve to augment the readings and to illuminate aspects of the ancient world. The students will also be introduced to Roman poetry and meter, including the work of Ovid, whose poetry will be treated further in the Advanced Topics course next year. Students enrolled in this course would be ready, should they so choose, to sit for the SAT Subject test in Latin at the end of the school year.

Texts:

- *Cena Trimalchionis*, Petronius
- *Metamorphoses*, Ovid
- *Mythology*, Edith Hamilton

Available to students who meet prerequisites:

- Latin II

Advanced Topics: The Personal Lyrics and Love Poetry of Catullus and Ovid
Latin 266 Full-Year Credit: 1

This advanced course is designed to build upon the students' introduction to poetry in Level IV. In this course, students will experience the lyric and love poetry by two of the most influential Roman poets: Catullus and Ovid. Students will discover the conventions, literary styles and characteristics associated with the genre of lyric and love poetry. They will likewise explore the historical, cultural, social, and political context within which the literature that would be chosen for the syllabus was created. The overall objective of the course would be to read, understand, translate and analyze selections from the works of the corpus of Catullus' poetry and from the Amores of Ovid.

Available to students who meet prerequisites:
Latin IV

Offered (2016-2017)

Advanced Topics: Latin Poetry: Vergil, Ovid & Catullus
Latin 245 Full-Year Credit: 1

This advanced topics course is designed to build upon the student's introduction to poetry in level IV. In this course, students will experience two different genres of Roman poetry, Epic and Lyric. Students will discover the conventions, literary styles and characteristics associated with each respective genre. They will likewise explore the historical, cultural, social, and political context within which the literature on the syllabus was created, with an emphasis on the political perspectives and the historical events that accompanied the transition from the end of the Roman Republic to the advent of the Empire. The overall objective of the course will be to read, understand, translate and analyze selections from the works of three master poets: Vergil, Ovid and Catullus.

Texts: Vergil's *Aeneid*, C. Pharr, editor
Love and Transformations: An Ovid Reader, R. LaFleur, editor
The Student's Catullus, D. Garrison, editor

Offered: (2017-2018)

Available to students who meet prerequisites:
Latin IV

Chinese

Chinese I

Chinese

200

Full-Year

Credit: 1

This introductory Upper School course aims to develop the student's basic language skills in listening, speaking, reading, and writing at an introductory level of the Chinese language. Students learn to use the phonetic system of Pinyin and to recognize and reproduce around one hundred and fifty Chinese characters. They will also learn to write in simplified characters. Dialogues and simple descriptive/narrative texts cover everyday topics, issues of interest, and idiomatic expressions.

Texts:

- *Integrated Chinese Level 1, Part 1 textbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston
- *Integrated Chinese Level 1, Part 1 workbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston

There is no prerequisite; students elect to take this course or are placed in it based on their placement test scores.

Chinese II

Chinese

202

Full-Year

Credit: 1

This basic-intermediate course builds upon the fundamental skills mastered in Chinese I. Students will continue to use the phonetic system of Pinyin and will be able to recognize and reproduce an additional one hundred and fifty characters. Exercises and drills to recognize and reproduce tones will be given in every class to help the students sharpen their listening and speaking skills. Students will also use the computer to write dialogues and short passages that they will share with the class.

Texts:

- *Integrated Chinese Level 1, Part 1 textbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston
- *Integrated Chinese Level 1, Part 1 workbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston

Available to students who meet prerequisites:

- Chinese I

Chinese III**Chinese****203****Full-Year****Credit: 1**

This advanced-intermediate course offers a continuation of all of the skills mastered in the previous Chinese courses. Students will continue to hone their understanding of the four main skill groups: reading, writing, speaking, and listening. Students will also increase their ability to carry on a conversation in Chinese, exploring a wider range of topics, while building vocabulary and solidifying their knowledge of basic syntax. Students will learn an additional three hundred Chinese characters to increase their reading comprehension and writing skills. At the completion of this course, students will be able to carry out daily conversations that demonstrate basic understanding of culture and customs, and to write simple and short essays.

Texts:

- *Integrated Chinese Level 1, Part 2 textbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston
- *Integrated Chinese Level 1, Part 2 workbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston

Available to students who meet prerequisites:

- Chinese II

Chinese IV**Chinese****205****Full-Year****Credit: 1**

This intermediate-advanced Upper School course is a continuation of all four skills mastered in the previous courses. Students will continue to develop the four main language skills: reading, writing, speaking, and listening. Students will expand their ability to carry out conversations on a wider range of topics and start to use more idiomatic expressions while building their vocabulary and solidifying their knowledge of sophisticated syntax.

Students will also enhance their ability to recognize and write characters. At the completion of this course, students will be expected to carry out regular conversations in real life with cultural sensitivity and will be able to write three-paragraph essays.

Texts:

- *Integrated Chinese Level 1, Part 2 textbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston
- *Integrated Chinese Level 1, Part 2 workbook, Simplified, Third Edition*, published by Cheng & Tsui Company, Boston

Available to students who meet prerequisites:

- Chinese III

Chinese V			
Chinese	207	Full-Year	Credit: 1
<p>This advanced language class provides students with a variety of opportunities to improve language proficiency and to learn about the Chinese-speaking world while thoroughly synthesizing grammar and vocabulary that have been mastered in Chinese I, II, III and IV. Students will develop skills in intermediate vocabulary acquisition, oral production, reading and listening comprehension, and writing, in addition to introducing basic themes in Chinese contemporary Chinese society.</p> <p>At the completion of this course, students will be able to participate in oral discussions with linguistic ease and cultural sensitivity, and to write essays on social and cultural topics.</p> <p>Texts:</p> <ul style="list-style-type: none"> • <i>Integrated Chinese Level 2, Part 1 textbook, Simplified, Third Edition</i>, published by Cheng & Tsui Company, Boston • <i>Integrated Chinese Level 2, Part 1 workbook, Simplified, Third Edition</i>, published by Cheng & Tsui Company, Boston <p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Chinese IV 			

Advanced topics: Chinese Conversation and Culture			
Chinese	209	Full-Year	Credit: 1
<p>Chinese Conversation and Culture is a full-year course intended for qualified students who are interested in completing Chinese language studies equivalent to a third year college level in content and difficulty. The course is taught entirely in Chinese. The objectives are to refine and further develop students' abilities to conduct semi-formal or formal discussion of social-cultural issues; to increase vocabulary by making context-based guess about the meaning of a new word; to write and present fully developed narrative and structured arguments; to learn to appreciate Chinese literature.</p> <p>Texts/Resources:</p> <p>Multiple texts including Travel in Chinese, Harvest Intermediate Chinese, students will also receive printed materials.</p> <p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Chinese V or the permission of the Department Head 			

Grade Ten (Required)

U.S. History

History

320

Full-Year

Credit: 1

United States history is organized to cover a wide variety of crucial topics in U.S. History – including different scholarly approaches to history, arguments over the nature of early contact between Europeans and Native Americans, the relationship between the power of the U.S. government and the liberties of the those within the nation’s borders, controversies surrounding the United States’ role on the world stage, and the emergence of social movements – and analyzing them with a critical eye. Guiding the design of the units is the framework provided by a “history lab” approach which is intended to enable students to master the fundamental skills of the historian: working with primary sources, conducting original research incorporating both archival sources and a wide variety of scholarly secondary sources, making connections between pressing issues in the present and formative lessons from the past, and developing the ability to construct thoughtful analyses of the topics and themes that we study. Research projects – both small and large-scale – will be central to United States History.

There is no required text. Selected readings will be handed out in class.

Constitutional Law

History

340

Fall

Credit: .5

Does a town that routinely opens its city council meetings with prayers delivered by local clergy violate the First Amendment? Does an Oklahoma law that limits doctors’ ability to prescribe the pills used to terminate early pregnancies violate the Constitution? These are just some of the questions that have come before the United States Supreme Court in recent years and they reflect the ongoing controversies that surround the way the Constitution, including those related to the limits of government power and the relationship between this power and individual rights and liberties. In this course, students will grapple with some of these questions and will use the semester’s work, which will focus on reading and analyzing relevant landmark opinions, to prepare to decide cases on the Supreme Court’s 2016-2017 docket.

Texts:

American Constitutional Law, Volume I, 6th Edition, Otis Stephens, Jr., John Scheb, & Colin Glennon

Available to students in Grades 11 and 12

Cultural Anthropology***History****345****Fall****Credit: .5**

Anthropology is a discipline that includes a wide range of subject matter, with a specific focus, though, on the diversity of human experience and the whole of the human condition. This course will begin with an exploration of Anthropology as a “four-field” discipline, but move into a study of Cultural Anthropology, examining the forms of social organization and cultural practice that humans create. While students will be asked to analyze the cultural differences of various societies throughout the world, they also will be asked to consider thematic similarities among these societies. Since this course will be the first time many students have studied Anthropology, it will begin with an investigation of the discipline’s methodology and a discussion of its historical roots. The remainder of the course will focus on anthropological themes such as ethnicity and its markers, ritual and belief systems, political structures, kinship, and social organization, among others. Students will be required to attend the Margaret Mead Film Festival held at the Museum of Natural History and to engage in a final ethnographic research project.

Available to students in Grades 11 and 12**Modern China*****History****346****Fall****Credit: .5**

An examination of the last 100 years of Chinese history provides a remarkable picture of decline and resurrection. Today China is making its uneasy transformation into an economic and political superpower, but a little over 50 years ago China experienced one of the worst famines in human history as a result of Mao Zedong’s failed policy, The Great Leap Forward. Today China’s combination of relatively free-market economics and authoritarian one-party rule seem incompatible to Americans who tend to view democracy and capitalism as bound together, but China has followed its own path to nation state building. The course begins with the Qing dynasty’s failure to check western aggression and the resulting 1911 revolution ending 2000 years of dynastic rule in China. Breaking with the past is never easy. Students will learn how warlordism, civil war and Japanese aggression plagued the country for decades following the 1911 Revolution and why the communists were able to win popular support and eventually establish the People’s Republic of China (PRC) in 1949. Lastly, students will evaluate the policies implemented by two communist leaders, Mao Zedong and Deng Xiaoping.

Text: *Revolution and Its Past: Identities and Change in Modern Chinese History Third Edition*, (Prentice Hall Publishing, 2011), R. Keith Schoppa

Available to students in Grades 11 and 12

Modern World History***History****341****Fall****Credit: .5**

In this course students will examine the impact and enduring legacies that early globalization had on the cultures, economies, and political systems of Asia, Europe, Africa, and the Americas from 1700 to 1850. Students will learn how the global exchange system shaped the relationship between different regions of the world and why the export of European enlightenment theories of government and religion had far-reaching global repercussions. Students will explore why globalization resulted in the rise of strong nation states in Europe and Japan but in China, arguably the largest Empire in the world at that time, globalization accelerated the process of imperial decline. By studying how different regions of the world met the challenges of globalization, students will understand what was gained, lost or preserved in the process and why traditional ideas about government, religion and social order were fundamentally altered across the globe.

Texts:

- *A History of the Modern World to 1815 Tenth Edition Volume I*, R.R. Palmer, Joel Colton and Lloyd Kramer
- *Western Civilization: Source, Images, and Interpretations*, Dennis Sherman

Available to students in Grades 11 and 12**Natural Selections: Literature, History and Politics of the Environment****History****350****Fall****Credit: .5**

From its foundations in the Transcendental Movement, nature writing has helped shape how Americans perceive and relate to the non-human world. Through readings, class discussions, and written work, as well as field trips and day hikes, this course will examine the various ways Americans have envisioned “the natural” and how they have tried to put those visions into practice. In it, we ask four essential questions: 1) How have the roots of the environmental movement shaped contemporary environmental discourse? 2) How have Americans imagined nature and how have those constructions shaped environmental policy? 3) How do contemporary depictions of nature affect our relationship to the environment? 4) How are race, class, and gender inflected in these and other questions of environmental imagination and policy? By exploring the recent history, literature, and culture of the twentieth-century “environmental movement,” we will begin to understand how contemporary environmental problems and solutions come from our shared (and often divisive) environmental past.

Authors may include:

John Burroughs, John Muir, Aldo Leopold, Edward Abbey, Rachel Carson, N. Scott. Momaday, Annie Dillard, David Quammen, and Elizabeth Kolbert.

Available to students in Grades 11 and 12 for History or English credit

Our Town: History of New York City**History****349****Fall****Credit: .5**

The history of New York City is to be found in neighborhoods, people, sights, and sounds. Since its founding by the Dutch in the 17th century, our city has gathered members of every tribe on earth to its shores. Our neighborhoods reinvent themselves continually, accommodating new people who seek only a chance to forge life anew. Nevertheless, every borough bears the stamp of its earlier histories and will reveal it to us if we are willing to look and learn. Students will read and write of the city's rise from modest beginnings to its status today as the world's capital. Throughout the fall we will read of New York's writers and merchants, politicians and revolutionaries, its saints, sinners, and citizens who, individually and collectively, have made our history. In addition to reading and writing about our city's history, students will be expected to explore the city both with others and alone, and lead class discussions.

Texts:

- *New York City: A Cultural History* (Interlink Books, 2008), Eric Homberger
- *The Historical Atlas of New York City* (Henry Holt and Company, 2005), Eric Homberger

Available to students in Grades 11 and 12**Scientific and Historical Origins of Race and Gender****History****351****Fall****Credit: .5**

The course will begin with an overview of human evolution, so students have a biological understanding of the evolutionary ideas that have influenced society. This will include fossil comparisons and DNA analysis. Students will then study the emergence of Darwinism as a scientific theory, including the socio-cultural context in which Darwin was conducting his research and developing his ideas. In addition to looking at the scientific debates prevalent at the time, students will investigate the influence of biological theories on the anthropological school of Evolutionism and its studies of culture. We will move into an exploration of how these theories influenced society and shaped governmental policies in the late 1800's through the mid-1900's – policies that have resulted in the oppression of communities in the US and Europe. Our historical studies will include, but not be limited to, slavery, gender discrimination, imperialism and colonialism, the Eugenics Movement, and Nazism. Students will investigate the science behind these policies, looking at the realities of human genetics and the flawed methodology used to conduct scientific studies of race at the time. They also will research the historical context for these studies and reasons why American and European societies were receptive to these discriminatory ideas. The course will end in the contemporary US and Europe, with an examination of current instances of injustice and discrimination and debates around recent scientific studies.

There is no required text. Selected readings will be handed out in class. Prerequisite: completion of Biology.

Available to students in Grades 11 and 12; qualifies for either History or Science credit

Slave to History: Literature, History and Memory of Atlantic Slavery*

History

347

Fall

Credit: .5

“The tradition of all dead generations weighs like a nightmare on the brains of the living,” Karl Marx, *The Eighteenth Brumaire of Louis Bonaparte*. Marx’s philosophy of history is nowhere more evident than Americans’ relationship to the history of slavery, a nightmare that many white Americans would prefer to forget. But studying slavery is an act of recovery, of reconciling with Americans’ amnesia that has erased slavery from our memory and severed the bonds of history between people, places, and events which tie together our shared slave past. This course examines slavery in literature and history during the era of the Atlantic slave trade, from its birth in the sixteenth century to the close of the slave trade in the nineteenth – its origins in Africa and its development in the New World by reading contemporary novelists, historical slave narratives, and the work of historians of slavery. Examining how both free and enslaved peoples narrated and lived slavery in the past, as well as how Americans remember and live with slavery’s legacy today, we will investigate the ways in which the “memory” of slavery still weighs upon the present to shape our lives.

Texts:

- *The Viceroy of Ouidah*, Bruce Chatwin
- Excerpts from *The Interesting Life of Olaudah Equiano or Gustavus Vassa, the African*, Olaudah Equiano
- *Incidents in the life of a Slave Girl*, Harriet Jacobs
- *Narrative of the Life of Frederick Douglass, an American Slave*, Frederick Douglass

Available to students in Grades 11 and 12

Sugar and Blood: The History of Cuba*

History

356

Fall

Credit: .5

What can one Caribbean island tell us about some of the most fascinating and traumatic moments of the last half millennium? Cuba is a big island with an even bigger story. This course will explore topics such as: the experience of indigenous peoples of Cuba and, the conquest, slavery, independence movements, neo-colonialism and the Cuban Revolution, as well as Cuba’s role on the international stage and the future of US-Cuban relations. The course will also look at Cuba’s syncretic culture, focusing on Cuba’s music and the Afro-Caribbean religion of Santeria. This course will be taught in a seminar style, and will require students to be ready to engage and take ownership of their classroom experience.

Texts: We will read from sources such as Aviva Chomsky, *The Cuba Reader*; Miguel Barnet, *Biography of a Runaway Slave*; and Raul Canizares, *Cuban Santeria*. Along with these works we will dive into various kinds of primary and secondary materials, as well as use music, video and art as sources.

Available to students in Grades 11 and 12

Criminal Justice**History****343****Spring****Credit: .5**

Even as political rivals have found some common ground in efforts to reform mass incarceration in the United States, in the past few years, the American public has engaged in a deeply emotional and highly publicized debate about the U.S. criminal justice system. From the outcry in response to the deaths of Michael Brown in Ferguson, Missouri, Eric Garner on Staten Island, and Freddie Gray in Baltimore, to the emergence of the Black Lives Matter Movement, activists and concerned citizens have challenged the government to bring an end to the racism that shapes the actions of the police, the courts and the various layers of the system. On an international level, the United Nations Human Rights Council has demanded that the U.S. "adopt measures at the federal level to prevent and punish excessive use of force by law enforcement officials against members of ethnic and racial minorities, including unarmed persons, which disproportionately affect African-American and undocumented migrants." How do we make sense of these important issues? How do different constituencies understand the problems related to the justice system? What can be done to create a system that all Americans feel serves the interest of justice? In this course, we will look at current case studies to investigate the nature of crime and justice and we will look, in particular, at America's unique approach to criminal justice, with a focus on those closest to this system. Utilizing tools from a variety of fields—including psychology, sociology, history, and political science—we will seek to understand the forces that shape how laws are created and applied and, in the process, to consider the potential for addressing the sources of the current crisis. In order to gain a deeper understanding of the nature of the criminal justice system in America, students will work collaboratively with community-based organizations, as part of their coursework.

Available to students in Grades 11 and 12**Food: History, Culture, Science, and Politics*****History****354****Spring****Credit: .5**

Food plays an integral role in our daily lives, from the nutrition and calories that sustain our bodies to the traditions and cultures of food that engage our minds. Hamburgers in America, polenta in Italy, fu-fu in Ghana, and coffee in Venezuela conjure up different historical, biological, cultural, and political processes that we often take for granted. From coffee's role in imperialism, to fast-food labor practices, to biotechnology for monopolizing agricultural commodities, this course will examine our current food system as well as the many critiques of it. We will examine four different disciplinary perspectives: 1) history – the links between past food systems and our current industrial food system; 2) culture – food as an outgrowth of how humans envision themselves and others; 3) the environment – the biological causes and consequences of why and what we eat; and 4) politics – the policies, regulations, and laws that govern food production, distribution, and consumption. These four approaches will give us insight into contemporary issues revolving around food such as the current "obesity epidemic" in the United States; the possibilities and problems associated with genetically modified food, organic food, and industrial food; or how cultural biases around food can influence national food policy. Because food is both material and cultural, this course encourages students to cross the science/humanities divide.

Available to students in Grades 11 and 12

Genocide in the Modern World: Facing History and Ourselves***History** **352** **Spring** **Credit: .5**

This course examines the historical forces and human behaviors that have resulted in genocide in the 20th century. It will be organized around major themes such as 19th century race science, nationalism, human rights, historical memory, justice, and both personal and international responsibility. Within this thematic framework, students will examine specific case studies, such as the Holocaust and the Rwandan Genocide. In a world in which issues of racism, anti-Semitism, nationalism, ethnic cleansing, and resulting violence are still alive, this course will challenge students to reflect on their own lives, societies, and personal choices.

Available to students in Grades 11 and 12**History of the Modern Middle East*****History** **344** **Spring** **Credit: .5**

The Middle East has a rich cultural heritage and has long been at the crossroads of history. In addition, its geopolitical realities, strategic resources, and ideological movements make the area central to US interests and foreign policy. As a result, the aim of this course is to provide students with the historical and cultural background to help them understand current realities throughout the region. As such, this course covers the history of the region, roughly from the beginning of the 'Modern Age' to the present. Key topics will include the Ottoman and Safavid Empires; European imperialism and its lasting effects; the dissolution of the Ottoman Empire and the emergence of modern Iran; and the rise of Zionism and Arab nationalism. It also will explore topics such as the discovery of oil and its political, social, and economic effects; the relationship between Israel, the Palestinians, and the Arab States; the Iranian and more recent Egyptian revolutions; and American interests in the region.

Available to students in Grades 11 and 12**History of Warfare*****History** **353** **Spring** **Credit: .5**

Why and how do we fight? Zoologists have noted that chimpanzees, our nearest relatives, appear to engage in organized warfare. Archaeological remains suggest that violence was a fact of life at the very dawn of time. In *A History of Warfare*, we will study why we fight, and what may rightfully be considered war. Throughout the semester, students will examine the conduct of warfare from the ancient world to the present day. The course will treat the professionalization of war, the influence of technology, the relation of politics and economics to war, logistics and transport, the changing role of women in war, strategy and tactics, guerrilla warfare and terrorism, the organization and training of soldiers, and the concept of the "just war."

Texts:

- *100 Decisive Battles from Ancient Times to the Present*, Paul K. Davis
- *The Art of War: War and Military Thought*, Martin Van Creveld

Available to students in Grades 11 and 12

International Relations***History****348****Spring****Credit: .5**

As the pace of globalization increases, it is critical that Americans understand how the world's nations interact. In this course we will think analytically about the role of power, diplomacy and international law in shaping world politics. We begin with an overview and evaluation of the major international systems that have existed in the world since the 17th century and the onset of globalization. We then examine several contemporary theories and case studies so we can better understand recent trends in International Relations (IR) and make informed predictions about the future of international law as a force for peace and stability in the world. This course culminates in a Model United Nations (MUN) simulation for which we will write policy statements and resolutions, lobby for signatories, deliver speeches, and engage in formal debate. Students enrolling in this course should be prepared to attend a MUN conference off campus in mid-May.

Available to students in Grades 11 and 12**Modern World History II*****History****342****Spring****Credit: .5**

In the first half of this course students will explore the close relationship of 19th century industrialization, nationalism and imperialism and the values and beliefs that fueled their development in the West. Students then evaluate how modernization and westernization have affected regions of the world outside Europe and America. Using the Congo Free State as a case study, students will learn about the brutal mistreatment of the local African peoples, the role of human rights organizations in reshaping European colonial policies, and the legacies of western exploitation in the present day Democratic Republic of Congo. In the second half of the course students will analyze the factors leading up to World War I and World War II and debate if either or both wars were preventable. Students will learn about the far-reaching changes that followed in the aftermath of each war and discuss how they shaped what we now call the modern world. Working collaboratively, students will research the challenges facing a modern day megacity in the developing world and propose a solution that is economically feasible, culturally sensitive and environmentally sustainable.

Texts:

- *A History of the Modern World Since 1815 Tenth Edition Volume II*, R.R. Palmer, Joel Colton and Lloyd Kramer
- *Western Civilization: Source, Images, and Interpretations*, Dennis Sherman

Available to students in Grades 11 and 12

Neither Wolf Nor Dog: Transformations in Native American Society, 1492-Present History 359 Spring Credit: .5

Like the history of any social group, American Indian identity in the areas now controlled by the United Americans has a complicated history. To paraphrase the Lakota spiritual and political leader *Tháŋŋka Íyotake* (Sitting Bull), Indians after contact and colonization were neither wolf nor dog, warrior nor farmer, but something new. That identity and history is lost on most Americans outside of Indian country. From Pocahontas to tribal casinos, myth, caricature, and stereotypes dominate our understanding of the varied, complicated, and still-ongoing histories of American Indians. This course will look beneath the dismissive stories both the left and right tell about Indian history by proceeding from the fact that Native Americans were active players in their own, and broader, American history. Much more than mere victims of Euro-American oppression and violence whose history ended with the last shot in the Indian wars, Native peoples of North America have had their own autonomous history that has been both impacted as well as had its own impact on “mainstream” American history.

We will focus on five distinct but interrelated themes:

- 1) the cultural diversity in North America before and after European colonization
- 2) the dynamics of Indian-European encounters before the United States gained continental dominance
- 3) responses to warfare and the treaty/reservation system under U.S. hegemony
- 4) the political, cultural, and spiritual dimensions of accommodation and resistance to non-Natives
- 5) the construction and reconstruction of Indian identities past and present.

Available to students in Grades 11 and 12

Separate and Unequal: Apartheid in South Africa* History 357 Spring Credit: .5

Open to students in grades 11 and 12) The death of Nelson Mandela brought world leaders together from all over the globe to honor his legacy. Yet many do not know the historical background of this outpouring of support. This course will look at the rise, fall, and lingering effects of the 20th Century South African experience, focusing on the impact of the extraordinarily racist institutional policies of the apartheid system. Comparisons between the anti-apartheid movement and the civil rights movement in the United States will also be explored. This course will be taught in a seminar style, and will require students to engage with the material by leading class discussions, running a mock conference, and working collaboratively with classmates.

Texts:

- *Long Walk to Freedom*, Nelson Mandela
- *Kaffir Boy*, Mark Mathanabe
- *South Africa: The Rise and Fall of Apartheid*, Nancy Clark and William Worger
- Various primary and secondary materials; music, video and art as sources

Available to students in Grades 11 and 12

**Advanced Topics in American Government
History**

372

Full-Year

Credit: 1

Advanced Topics in American Government explores the philosophical and constitutional underpinnings of the United States political system; major institutions of government; the roles of interest groups, political parties, elections, and the media; as well as debates about national security, civil liberties, and civil rights. Through an examination of politics in the United States and case studies of government in other countries, students will develop a vocabulary and conceptual framework which will enable them to better analyze political developments at home and abroad. In the process students will cultivate their abilities to think and to write critically and persuasively, to interrogate sources and develop their abilities to make effective, well-informed presentations. In the second semester, students will conduct and present scholarly research on an urgent public policy issue of their choice: domestic - such as education, healthcare and job creation or international - such as development, security and sustainability.

Texts:

- *Challenge of Democracy 13th Edition*, Janda, Berry and Goldman
- *Lanahan Readings in the American Polity, 5th Edition*, Serow and Ladd, eds.

Student eligibility for enrollment in Advanced Topics History courses is determined by a student's current history instructor in conjunction with the History Department Head.

Advanced Topics in European History*

History

382

Full-Year

Credit: 1

Advanced Topics in European History traces the evolution of Western society from the fifteenth century to the twenty-first century. In the first semester, students reconstruct Europe's past from the Renaissance to the French Revolution. We will enrich our understanding of European cultures through a class trip to the Metropolitan Museum of Art and through a study of the ways in which literary and cinematic recreations of the past can inform and distort our understanding of history. In the first semester, each student will submit an example of his or her work in a medium to be decided in consultation with the teacher. This could take the form of a piece of art, a short film, a work of fiction, or a series of lectures. In the second semester, the class will examine critical topics that link Europe with Asia and Africa through units on the global impact of industrialization, nationalism, and imperialism, and on the achievements and tragedies of the 20th century. A research project related to World War II will serve as the centerpiece of the second semester. Each student will research a specific artifact drawn from private collections of photographs, letters, unpublished memoirs and material relics from the war years. In May, we will acknowledge the seventieth anniversary of the end of the Second World War with student presentations of their research.

Please note that there is a summer reading requirement for the course.

Text: *A History of Europe in the Modern World, 11th Edition*, Palmer, R. R., Colton, Joel, Kramer, Lloyd (McGraw Hill, 2014)

Student eligibility for enrollment in Advanced Topics History courses is determined by a student's current history instructor in conjunction with the History Department Head.

Advanced Topics Making History: Conducting Scholarly Research in the Archives History 358 Full-Year Credit: 1

This Advanced Topics course will enable students to conduct original research to gain insight into history by using the materials held in the Packer Collegiate Institute's archives located at the Brooklyn Historical Society (BHS). Working as research historians in the archives, students will develop advanced research and writing skills and provide feedback to others throughout the research process. Each participant will be expected to work confidently and with a high degree of independence throughout the research process by seeking to draw meaningful connections between items in the Packer collection and national and international events. For example, potential research questions might include: What role did Packer community members play with regard to World War I or what was the relationship between Packer and nineteenth-century religious movements? Students will present their research in two forms: first, in the composition of a scholarly essay suitable for submission to *The Concord Review* or comparable journals that publish quality works by high school students and, second, in a public presentation at a research seminar held at the end of the year. The class will meet four times a week, including one meeting every seven days at the Brooklyn Historical Society during the long block. Students will be expected to do substantial work with archival materials outside of class sessions and may need to work at BHS outside of class time.

Please note that there is a summer reading requirement for the course.

Text: *A Midwife's Tale*, Laurel Thatcher Ulrich

Student eligibility for enrollment in Advanced Topics History courses is determined by a student's current history instructor in conjunction with the History Department Head.

Mathematics

Department Head: Amy Hand

The central goal of the mathematics department is to provide Packer students with a supportive and challenging learning environment in which they may fully develop their talents and abilities in the field of mathematics. The coursework for students in the Upper School is designed to build upon the algebraic and problem-solving skills developed in Middle School math courses so that students can master the increasingly complex concepts and ideas covered in the Geometry, Algebra II, Precalculus, Calculus and Statistics courses.

The majority of Upper School students enroll in a math course all four years.

Students will have the opportunity to develop the analytical skills necessary to work confidently and independently as they study more advanced math topics. Students will also practice writing and articulating their understanding of mathematical concepts.

Because of the cumulative nature of Packer's math curriculum, it is important for students to be adequately prepared in Algebra in order to be successful in subsequent courses. A student who receives a grade of C- or lower in Algebra I will be required to complete a summer school course. This summer work is expected to strengthen the student's mastery of the material. Prior to enrolling in a geometry course, the student will be required to complete an exam to assess his or her achievement. A TI-83 or TI-84 graphing calculator is required for all Upper School mathematics courses.

Advanced Mathematics Classes

Placement decisions are thoughtfully made by Packer's math faculty, with the goal of identifying the most effective learning environment for each student.

Advanced math classes spend less time reviewing foundational material, cover content at a much more rapid pace, and explore some topics more deeply than standard classes do; they also involve much more independent work.

Occasionally, teachers will consider switching a student from standard to advanced if he/she:

- Earns an A (93% and above) in the standard course
- Consistently demonstrates the attributes listed in AT and Accelerated Courses criteria
- Demonstrates mastery of prerequisite content that may not have been covered in the standard section
- Obtains recommendation from the department head and from his or her math teacher

Students who wish to advance a year in their mathematics studies through summer study must have prior approval from the department head and submit a detailed syllabus of the course in which they intend to enroll for pre-approval. The course must align with Packer's syllabus, which is available from the department head. Approval is rare and reserved for students who would not be well served by Packer's math sequence and offerings.

All students enrolled in a summer course must take a Packer math department exam for the corresponding course. Students who earn a grade of 85% or higher on the exam will earn full credit for the course. Students who earn less than 85% on the exam will work with the department head to determine if additional study is required prior to advancement or if the student will be required to repeat the course during the coming school year.

Note: An asterisk (*) indicates that the topic is covered in the advanced section but not in the standard section.

Geometry

Math

422

Full-Year

Credit: 1

This is a standard geometry course, which covers the fundamentals of plane and solid geometry and concepts in geometric proofs. Topics include points, lines, planes, and angles; deductive reasoning; parallel lines and planes; congruent triangles; quadrilaterals; inequalities in geometry; similar polygons; right triangles; circles; areas of planar figures; areas and volumes of solids; and coordinate geometry.

Students will apply many of the skills that they learned in algebra and at least one topic from Algebra I will be reviewed in each unit. Students will work with geometric proofs and use Geogebra to investigate the material.

Available to students who meet prerequisites:

- A grade of C or higher in 8th grade Algebra I

Geometry Advanced

Math

420

Full-Year

Credit: 1

This is a fast-paced advanced geometry course, which covers the fundamentals of plane and solid geometry and geometric proofs. Topics include points, lines, planes, and angles; deductive reasoning; parallel lines and planes; congruent triangles; quadrilaterals; inequalities in geometry; similar polygons; right triangles; circles; areas of planes and figures, areas and volumes of solids, coordinate geometry, and transformations*. Students will apply many of the skills that they learned in algebra. They will work with geometric proofs and use Geogebra and other dynamic geometry software to investigate the material.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria
- Permission of the Department Head
- A grade of B or higher in 8th Grade Algebra I A

Algebra II
Math 432 Full-Year Credit: 1

This is a standard Algebra II course, which strengthens and reinforces students' algebraic skills through the study of intermediate algebraic concepts and provides a rigorous study of functions. Topics include linear and absolute value equations and inequalities; polynomial, radical and rational expressions and equations; linear and quadratic functions; common parent graphs and their transformations; operations, compositions and inverses of functions; exponential and logarithmic functions; and intermediate statistics including the standard deviation and the normal distribution. Students use the graphing calculator extensively throughout the course.

Available to students who meet prerequisites:

- A grade of C- or higher in Geometry (Math 422)

Algebra II Advanced
Math 430 Full-Year Credit: 1

This is a fast-paced Algebra II and Trigonometry course, which strengthens and reinforces algebraic skills through the study of intermediate algebraic concepts and provides a rigorous study of functions and trigonometry. Topics include linear and absolute value equations and inequalities; polynomial, radical and rational expressions and equations; linear and quadratic functions; common parent graphs and their transformations; operations, compositions and inverses of functions; exponential and logarithmic functions; unit circle trigonometry*, trigonometric functions*, and trigonometric identities and equations*; and intermediate statistics including the standard deviation and the normal distribution. Students use the graphing calculator extensively throughout the course.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria and permission of the Department Head
- A grade of B or higher in Geometry A (Math 420)

Algebra II/Precalculus Advanced**Math****435****Full-Year****Credit: 1**

This fast-paced accelerated math course covers half of Algebra II and all of Precalculus. Topics include functions and their transformations, applications of quadratic functions, matrices, unit circle trigonometry, polynomial, rational, exponential, logarithmic and trigonometric functions, triangle trigonometry, trigonometric identities and equations, intermediate probability and statistics, polar coordinates and equations, conic sections, vectors, and sequences and series.

Because of the fast nature of this course, there will be no review of previously learned material. Students must demonstrate mastery of some Algebra II Advanced topics by completing a rigorous summer assignment.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria and permission of the Department Head
- A grade of A or A- in 8th Grade Algebra I A Plus
- A grade of A in Geometry Advanced
- Independent summer work to demonstrate mastery of Algebra II A topics

Precalculus**Math****445****Full-Year****Credit: 1**

This is a standard Precalculus course, that builds on the skills acquired in Algebra II, strengthening and reinforcing students' facility with functions. Topics include unit circle trigonometry, graphs of trigonometric functions, trigonometric equations and identities, matrices, polynomial functions, rational functions, additional work with exponential and logarithmic functions, intermediate probability and combinatorics, and sequences and series.

Available to students who meet prerequisites:

- A grade of B- or higher in Algebra II (Math 432)
- Permission of the Department Head

Precalculus Advanced**Math****448****Full-Year****Credit: 1**

This is a fast-paced Precalculus course, which builds on the skills acquired in Algebra II Advanced, strengthening and reinforcing students' facility with functions. Students will engage in rigorous study of several topics including matrices, polynomial functions, rational functions, additional work with exponential, logarithmic and trigonometric functions, intermediate probability and combinatorics, polar coordinates and equations*, conic sections, vectors*, and sequences and series.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria
- Permission of the Department Head
- A grade of B or higher in Algebra II Advanced (Math 430)

Advanced Topics Statistics**Math****442****Full-Year****Credit: 1**

The purpose of this AT statistics course is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: (1) Exploring Data: Describing patterns and departures from patterns, (2) Sampling and Experimentation: Planning and conducting a study, (3) Anticipating Patterns: Exploring random phenomena using probability and simulation, and (4) Statistical Inference: Estimating population parameters and testing hypotheses. Throughout each of these themes, students will be exposed to technological tools that assist in the analysis of data and creation of distributions as well as real, relevant studies that are just now being published.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria
- Permission of the Department Head
- A grade of A- or higher in Algebra II A (Math 430) or a grade of B- or higher in Precalculus Advanced (Math 448) or grade of A- or higher in Algebra II A; students earning a grade of A or higher in Precalculus (Math 445) may be considered with a teacher recommendation.

Advanced Math Applications S1**Math****490****Fall****Credit: .5**

This math course covers several discrete math topics, including Polya's problem solving techniques, set theory, logic, number theory, combinatorics, and intermediate probability including the Binomial Theorem. Throughout the course students hone their problem solving skills; engage in hands-on lessons, and complete several applied mathematics projects.

Throughout the course students hone their problem solving skills; engage in hands-on lessons, and complete several applied mathematics projects.

Available to students who meet prerequisites:

- A grade of C- or higher in Algebra II (Math 432)

Advanced Math Applications S2**Math****491****Spring****Credit: .5**

This math course covers several discrete math topics, including the development of number systems, network theory, three-dimensional geometry including a study of Platonic solids, applications of triangle trigonometry, and voting and apportionment methods. This course also explores topics in consumer math.

Throughout the course students hone their problem solving skills; engage in hands-on lessons, and complete several applied mathematics projects.

Available to students who meet prerequisites:

- A grade of C- or higher in Algebra II (Math 432).

Calculus Math	480	Full-Year	Credit: 1
<p>This is a standard calculus course, covering functions, limits, continuity, derivatives, applications of the derivative, and an introduction to integration. Students spend some time reviewing Precalculus material to reinforce their understanding of functions prior to studying calculus topics. At the completion of this course students will be prepared to successfully complete their first year of college calculus.</p>			
<p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Permission of the Department Head • Strong algebra skills • A grade of B+ or higher in Precalculus (Math 445) or a grade of C or higher in Precalculus Advanced (Math 448) or a grade of C or higher in Algebra II/Precalculus Advanced (Math 435) 			

AT Calculus I Math	481	Full-Year	Credit: 1
<p>This is a rigorous calculus course covering limits, derivatives, applications of the derivative, integrals, applications of the integral and an introduction to differential equations and slope fields. Students learn through a discovery-based approach and will prove the theorems they use.</p>			
<p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria • Permission of the Department Head • A grade of B or higher in Precalculus Advanced (Math 448) or grade of B + or higher in Algebra II/Precalculus Advanced (Math 435) 			

AT Calculus I & II Math	483	Full-Year	Credit: 1
<p>This course is taught in a problem-based curriculum. Students must be comfortable and familiar with the process of problem solving. AT Calculus I & II covers the same material as AT Calculus I but at a faster pace, allowing the following additional topics to be covered: sequences and series; Taylor and Maclaurin polynomials; parametric equations; polar equations; and advanced techniques of integration. Additional emphasis will be placed on proof, the expression of mathematical ideas, and the mathematics of problem solving.</p>			
<p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria • Permission of the Department Head • A grade of A or higher in Precalculus Advanced (Math 448) or grade of A - or higher in Algebra II/Precalculus Advanced (Math 435) 			

Multivariable Calculus**Math****485****Full-Year****Credit: 1**

This course includes a variety of advanced mathematics topics, including functions of several variables, non-rectangular coordinate systems, vector-valued functions, and differential and integral calculus of several variables.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in AT and Accelerated Course Criteria
- Permission of the Department Head

Science

Department Head: Chris Williams

The science department promotes a curriculum that is designed to provide the information and skills necessary to understand the discoveries and principles of science in an increasingly scientific and technological society. There are three primary goals of the science program: to promote scientific literacy for all students, to develop critical thinking and inquiry skills that help students understand the basic nature of science, and to teach students how to apply their knowledge to solve scientific problems. What is critical is not the amount of material covered, but rather the conceptual depth of understanding reached.

The use of the laboratory is essential to learning science at Packer. Students conduct hands-on investigations as integral components of each unit, with an emphasis on prediction alongside qualitative and quantitative analysis. Writing skills, mathematics, and technology are organically embedded within the laboratory program.

Packer requires three years of laboratory science for graduation. Students fulfill this requirement by taking physics in ninth grade, chemistry in tenth grade, and biology in eleventh grade.

Those considering a career in science or engineering are encouraged to complete four years of science including the Science Research Program and/or an Advanced Topics (AT) science course.

Students earning a B+ average or better in AT Chemistry, AT Physics or AT Biology should consider taking the respective Subject Test test in June. However, students should be aware that the objective of science AT courses is not as preparation for the content of any of the science Subject Tests. As such, significant work by students outside of class to add topics not covered by the AT science courses, and to become familiar with the Subject Test format will be required by any student desiring to take an Subject Test in science. Students taking a third semester of chemistry, the course Advanced Experimental Chemistry, can also consider taking the Subject Test in chemistry.

**Physics
Science**

500

Full-Year

Credit: 1.0

Physics can be used to answer questions such as why the sky can be such a beautiful blue (on Earth) or why sunsets are red; why a bullet fired horizontally from a gun and one dropped at the same instant from the same height hit the floor at exactly the same time, regardless of how far the bullet travels horizontally; why time is a relative term and many other questions about matter and energy in our universe. Indeed, where does the energy come from that turns on that light? Physics applies to everything in the universe, and allows us to predict the outcome of a given scenario.

This course will focus on a conceptual understanding of the material; hence, laboratory investigations, student collaboration and demonstrations will comprise a major component of the course. Students will make use of computers and probes for data collection and analysis and will learn how to find mathematical relationships between physical quantities using graphical methods.

Basic algebra skills are used as a tool to understand these relationships and to solve problems.

**Accelerated Physics
Science 505**

Year

Credit: 1.0

Have you ever wondered how to predict where a high fly ball to deep center field will land? Or have you tried to predict which way your body will fall when the subway stops short? Physics is a way of quantifying these scenarios and explaining mathematically how they will turn out. Accelerated Physics is a rigorous first year physics course that will cover the topics of energy, mechanics and as time allows waves, electricity and magnetism.

The emphasis will be on establishing a strong conceptual understanding of the physics topics mentioned above and examining how mathematical equations can describe the world around us and quantify the physical world. These topics will be explored through discussion, problem solving, and laboratory investigations. The course is based around student-designed experiments to test ideas about how the world works and collaboration to solve problems.

Students will make use of computers and probes for data collection and analysis and will require mastery of trigonometry.

Available to students who meet prerequisites:

- An A- average and 1 effort grade average in 8th grade science at Packer and approval by the relevant science and math teacher.

For students new to Packer in the 9th grade, placement in this course will be based on performance in their 8th grade science courses and a skill survey sent to their 8th grade science teachers.

Advanced Topics in Physics**Science****586****Full-Year****Credit: 1.0**

This course is designed to be the equivalent of a college-level introductory physics course and builds upon the foundations received in 9th grade physics. Topics will be selected from: motion in one- and two- dimensions, forces, circular motion and rotational dynamics, simple harmonic motion, waves, geometric optics, thermodynamics, electrostatics, conductors and capacitors, magnetic fields, electromagnetism, fluids, thermodynamics and atomic physics. Numerous quantitative experiments are conducted throughout the year to show application of concepts and expand understanding, some of these using probes and computers. Strong emphasis is placed on solving a variety of challenging problems, as well as continuing to develop a deep understanding of physics concepts.

Text: *Physics, 6th Edition, 2005*, Giancoli

Available to students who meet prerequisites:

- Physics or Accelerated Physics and the approval of the relevant science teacher
- A B+ average in accelerated chemistry or an A- average in chemistry and equivalent math grades
- Completion or concurrent enrollment in Precalculus
- The recommendation of the relevant Science teacher

Chemistry**Science****510****Full-Year****Credit: 1.0**

This introductory course emphasizes the development of chemical literacy and analytical thinking through a study of matter and the changes that it undergoes. Students engage in active exploration of chemical phenomena and learn to analyze and explain their observations with increased precision and detail. The central principles of chemistry will enrich their understanding of natural phenomena and the world in which we live. Topics include but are not limited to energy, models of atomic and molecular structure, states of matter and the changes that the matter undergoes, bonding, and gas laws. **This course is open to all 10th grade students, regardless of their math level or previous performance in 9th grade physics.**

Text: *Living By Chemistry, 1st edition, 2010*, Stacey, A.

Available to students who meet prerequisites:

- 9th Grade Physics

**Accelerated Chemistry
Science 512**

Full-Year

Credit: 1.0

This rigorous year-long course in chemistry explores the nature of matter through quantitative analysis. An emphasis is placed on developing improved analytical thinking and problem solving skills and on exploring the nature of the scientific process. Students will carry out hands-on investigations of chemical phenomena and learn to analyze and explain their observations with increased precision and detail. Topics covered will include atomic structure, bonding, qualitative and quantitative relationships in chemical reactions, thermodynamics, gas laws, condensed states of matter and solution behavior.

Text: *Introductory Chemistry: A Foundation, 7th Edition, 2010, Zumdahl*

Available to students who meet prerequisites:

- An A- average in both Accelerated Physics and 9th grade math course
- Approval of the relevant teacher or by approval from the Department Head

Advanced Experimental Chemistry: From the Page to the Plant

Science

542

Fall

Credit: 0.5

Every year, chemical plants and factories churn out billions of kilograms of materials that, directly or indirectly, become essential components of modern life. Some of the most severe crises facing our species and our planet in the 20th and 21st centuries have been solved (and/or created) by chemists who were able to take abstract concepts and develop them into concrete innovations. But, have you ever wondered what actually is required to turn a “simple” chemical reaction from a balanced equation on a piece of paper into a full-fledged industrial process? Once a “discovery is made, how do scientists harness its power for practical purposes? What kinds of problems must be solved?

In this one semester laboratory intensive course, we will build on knowledge and skills from the 10th grade chemistry curriculum by exploring some of the challenges that must be addressed in moving a chemical reaction from the page to the plant. Students will be exposed to advanced laboratory techniques for synthesis, purification, and analysis of compounds, including thin layer chromatography, gas chromatography, and UV-Vis spectroscopy. Most of the work will be hands-on and aimed at investigating solutions to practical challenges through student-directed experimentation.

Text: Zumdahl. *Introductory Chemistry: A Foundation, 7th Edition, 2010*

Available to students who meet prerequisites:

- A demonstrated mastery of the 10th grade chemistry curriculum
- A grade of B+ or higher in Accelerated Chemistry or an A- in Chemistry
- Approval of the relevant teacher or by approval from the Department Head

Topics in Organic Chemistry**Science****544****Spring****Credit: 0.5**

Organic compounds frequently make headlines and create media buzz – often described in hyperbolic terms ranging from “miracle drugs” to “deadly toxins,” but how much does the average person actually know about the chemical structures, properties and reactivity of these compounds (Not much, it turns out...)? What do they look like? What do they do? How are they developed into useable products? How do we decide if they are “safe?” In this one semester course, we will explore these questions as we develop a new way of thinking about and visualizing chemical structures and reactivity and as we explore the relationships between chemistry and economics, politics, and public opinion. Students will come to a better understanding of the chemistry behind physiological processes discussed in biology, learn to apply the fundamental principles of interactions between organic substances, and gain fluency with the basic reactions that allow chemists to build new complex molecules in the laboratory.

Text: *Organic Chemistry: a short course, 13th Edition, 2012, Hart.*

Available to students who meet prerequisites:

- A grade of B+ or higher in Chemistry or Accelerated Chemistry
- Completion or concurrent registration in Biology

Advanced Topics in Chemistry**Science****580****Full-Year****Credit: 1.0**

Chemistry is all around, in every interaction of matter and in all that is observable. Chemistry provides the answers to the questions: Why does ice float? How do batteries generate electricity? How does the catalytic converter in a car work? Why is the ozone layer important? How is life maintained and reproduced? What are the tiles on the space shuttle made of? How do we freeze-dry coffee? By accepting the challenge of AT Chemistry, students are building the academic foundation required to excel in any field of science.

This course is the equivalent of the general chemistry course usually taken during the freshman year of college by science majors.

Students can expect to achieve a deep understanding of the fundamentals of general chemistry, develop critical thinking and problem solving skills, and learn to interpret and explain a broad range of chemical phenomenon.

Text: Zumdahl & Zumdahl, *Chemistry*, 9th Edition, 2013

Available to students who meet prerequisites:

- A B+ average in Accelerated Chemistry, or an A- average in Chemistry or a B+ average in Advanced Experimental Chemistry
- Current enrollment or completion in Algebra II while maintaining a B average in Math
- Recommendation by the relevant Science teacher

**Biology
Science**

520

Full-Year

Credit: 1.0

This introductory course presents a study of the fundamental processes of living organisms, with an emphasis on the role of molecular biology and biotechnology in our world. Topics include: biochemistry, structure and function of cells, the cell cycle, reproduction, genetics, protein synthesis, evolution, cellular respiration, and photosynthesis. Students will make use of computers for data collection and analysis as well as for simulations and internet-based research. Realizing that science can never be separated from the culture and society from which it comes, we will explore selected bioethical issues throughout the year.

Text: *Biology: Concepts & Connections, 8th Edition*, Jane B. Reece, Martha R. Taylor, Eric J. Simon, Jean L. Dickey, Kelly A. Hogan, Campbell

Available to students who meet prerequisites:

- Courses in physics and chemistry

Advanced Topics in Biology

Science

582

Full-Year

Credit: 1.0

This course is designed to be the equivalent of a college-level biology course. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills necessary to deal critically with the rapidly changing science of biology. Areas covered will emphasize investigation of evolution, molecular genetics and information transfer, regulation of body systems and interactions between organisms. The laboratory program consists of quantitative experiments that stress experimental design, as well as the use of computers for simulations, data collection, graphing, and an introduction to statistical analysis.

Text: *Biology (10th edition) [Non-AP Edition]*, Jane B. Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky, Robert B. Jackson, Campbell

Available to students who meet prerequisites:

- B+ in Chemistry
- B+ average in Biology and a B in Accelerated Chemistry
- Permission of the Department Head

**Astronomy
Science**

554

Spring

Credit .5

This elective offers a survey of space sciences, and takes an approach that moves from the Big Bang to the interior of planet earth. We begin with an examination of cosmological theory, reviewing the formation of the universe from the first nanoseconds until the present age of galaxies. We explore the life cycle of stars, from their nebular beginnings to their many possible end points, including supernovas and black holes. Planetary formation is discussed, with our solar system serving as an instructional model.

Continuing our trajectory homeward, we arrive on earth and discuss our planet's relationship to the cosmos. Constellations, lunar cycles, and eclipses are examined from a scientific and historical perspective. This elective includes lab-work, sessions with a telescope, reading assignments, and a research project.

Text: *Origins*, Neil DeGrasse Tyson (any edition)

Available to students who meet prerequisites:

- A grade of B or higher in Chemistry or Accelerated Chemistry
- Completion or concurrent registration in Biology

**Nuclear Physics
Science**

555

Fall

Credit.5

This elective offers a survey of particle physics and nuclear-based technology. We begin with a historical look at the concept of the atom, tracing its development from antiquity to the present quantum model. The nucleus is given particular focus, with the discovery and development of radioactivity setting the stage for our modern understanding of the standard model. We then turn from theory to practice, exploring the role of nuclear physics in modern society. We examine the use of radiation and radioactive isotopes across a wide spectrum of human endeavor, from medicine to archaeology. The concepts of fission and fusion are introduced, providing the background to discuss the role of nuclear physics in politics and war, from the Manhattan Project to the threat of terrorism. We conclude with a thorough study of nuclear power, reviewing its controversial history and evaluating its future as a source of energy. This elective includes lab-work, in-depth reading assignments, and a research paper.

Available to students who meet prerequisites:

- A grade of B+ or higher in Chemistry or Accelerated Chemistry
- Completion or concurrent registration in Biology

Scientific and Historical Origins of Race and Gender

Science/History

540

Fall

Credit: .5

The course will begin with an overview of human evolution, so students have a biological understanding of the evolutionary ideas that have influenced society. This will include fossil comparisons and DNA analysis. Students will then study the emergence of Darwinism as a scientific theory, including the socio-cultural context in which Darwin was conducting his research and developing his ideas. In addition to looking at the scientific debates prevalent at the time, students will investigate the influence of biological theories on the anthropological school of Evolutionism and its studies of culture. We will move into an exploration of how these theories influenced society and shaped governmental policies in the late 1800's through the mid-1900's – policies that have resulted in the oppression of communities in the US and Europe.

Our historical studies will include, but not be limited to, slavery, gender discrimination, imperialism and colonialism, the Eugenics Movement, and Nazism.

Students will investigate the science behind these policies, looking at the realities of human genetics and the flawed methodology used to conduct scientific studies of race at the time. They will research the historical context for these studies and reasons why American and European societies were receptive to these discriminatory ideas.

The course will end in the contemporary US and Europe, with an examination of current instances of injustice and discrimination, and debates around recent scientific studies.

Available to students who meet prerequisites:

- Biology

Anatomy and Physiology

Science

553

Spring

Credit: .5

Do you yearn to learn how the body works? Or why people who have heart bypass surgery have a large incision in their leg? Do you know why your feet swell in a theater or on an airplane when you take your shoes off? Why your rings get loose during winter? Why people run a fever? Why pregnant women waddle for the last few weeks? Ever wonder what an EKG, EEG, MRI, or CAT scan means? Or what the difference is between an aneurism and an embolism?

If these questions pique your curiosity, join us for an exploration of human biology. In this course we will study the structure and function of the systems of the human body.

Students should be aware that lab exercises will include a dissection of a fetal pig when all of the human body systems have been studied. This course will enhance students' preparation for the SAT II in Biology. Both the E and M forms of the test include human systems.

Available to students who meet prerequisites:

- Completion or concurrent enrollment in Biology or AT Biology

Introduction to Independent Science Research**Science****506****Full-Year****Credit: 1.0**

Open to students entering the 10th grade, Introduction to Independent Science Research will provide a rich experience in a topic of the student's choosing, leading to an authentic research experience working in a laboratory with a scientist in the summer. The course is perfect for students who have a strong interest in science and are motivated, independent learners who want to investigate an area of science of their own choice, and deepen their scientific and research skills.

As it is designed to be multi-year, the course is quite different from other courses at Packer. As part of the course, students are required to conduct a minimum of four consecutive weeks of lab work beginning the summer after 10th grade, which will give them the opportunity to receive 2 college credits from SUNY Albany. Following 10th grade, students are required to continue the work in the lab during the school year after school, so students need a large degree of flexibility in their after school time. This means that usually students go to the lab at least twice a week after school.

Students will read and analyze journal articles, attend science lectures and meet local scientists both at the school and in their labs. Students will gain experience presenting their research in a variety of settings culminating with the end of year Science Research Symposium.

Available to students who meet prerequisites:

- Completion of 9th grade Physics
- Ability to work quite independently and a strong interest in science and developing scientific research and learning skills
- Or A B+ average in Biology and a B in Accelerated Chemistry

Intermediate Independent Science Research**Science****507****Full-Year****Credit: 1.0**

The intermediate science research course is open to those students who have successfully completed the introductory course, including the summer lab work, and will be a continuation of each student's work in their field of independent research. Students will continue working with both the course teacher and their individual mentors from the first year, to advance and deepen their understanding of their chosen topic. Students will be encouraged to enter at least one science competition and continue their independent research with their science mentor. Students are expected to go to their lab placement at least twice a week throughout the school year and conduct a minimum of four consecutive weeks of lab work during the summer. Students have the option to receive college credit from SUNY Albany for both their research during the school year (4 credits) and also during the summer (2 credits).

Available to students who meet prerequisites:

- Successful completion of Introduction to Independent Science Research
- Completion of a minimum of 4 weeks of summer research

Advanced Independent Science Research**Science****508****Full-Year****Credit: 1.0**

The advanced science research course is open to those students who have successfully completed the introductory and intermediate courses and will be a continuation of each student's work in their field of independent research. Students will continue working with both the course teacher and their individual mentors from previous years to further advance and deepen their understanding of their chosen topic. Students will enter at least one science competition and continue their independent research with their science mentor. Other public speaking opportunities arise at this level, such as a presentation of the research during Community Meeting. Students have the option to receive college credit from SUNY Albany for both their research during the school year (4 credits) and also during the summer (2 credits).

Available to students who meet prerequisites:

- Successful completion of Introductory to and Intermediate Independent Science Research
- Completion of a minimum of 4 weeks of summer research

Environmental Science & Society: Peril & Progress**Science****587/588****Fall/Spring****Credit: .5**

This course is designed to introduce students to some of the most pressing environmental questions of today and understand the science behind them. Many of these issues are fundamental to life and go to the very heart of our society: how we obtain our energy, food and water. On the one hand, all of these issues are based in science; hence knowledge of scientific concepts is essential to understand them. However, ecological issues such as climate change, biodiversity loss, genetically modified organisms, factory farming, desertification, hydrofracking, to name only a few, all have clear connections to historical, economic, social and political questions.

Arguably, the most all-encompassing threat to civilization is global climate change. While it has much broader implications, this is a question that revolves around how we obtain our energy, a fundamental aspect of modern society. A stable and predictable climate is essential to the equilibrium of ecosystems, for farming, water, location of population centers and much else.

To have an educated opinion and be able to make informed judgments requires a background in the relevant science. Therefore, one of the main objectives of this course is to furnish students with that background so that you can join in with the conversation and play a role in effecting positive social and ecological change; a functioning democracy of necessity requires an informed and active citizenry.

The various issues will be presented as a multi-disciplinary inter-connected whole, which is process driven and historically contingent. Furthermore, the impacts of climate change, pollution and ecological degradation are not felt equally by different groups of people, but are filtered and refracted through the social categories of class, race and gender. The course will seek to examine these unequal impacts as a matter of social and environmental justice, and what it would take to change them to obtain justice for all.

Available to students who have completed two years of High School Science

Arts

Department Head: Debbie Pressman

The mission of the arts department is to offer a range of opportunities that will foster the development of each student's creative and artistic voice. The education process in these art courses fuses theory and concept with students' expressive lives, and offers them the practical tools to give form to their experience. Using both traditional and innovative techniques, the arts faculty encourages students to be risk-takers and creative problem solvers, and to appreciate the rigors of disciplined craft and the development of skills over time.

The program includes two inter-related methodologies, which occur simultaneously: the formal studio/class experience within the curriculum, and the co-curricular experience, represented by performances and visual art displays, both within and beyond Packer's walls. Co-curricular experiences include the annual Packer Dance Concert, Upper School specialty trips to Europe, Fall Play, Renaissance Evening, and Spring Musical.

FreshArts**Arts****610****Full-Year****Credit: 1**

The freshman year is a discovery year and provides an introduction to basic arts specialties in the Upper School. Members of the visual and performing arts faculty teach FreshArts. In the first phase of the course, students rotate through five arts disciplines: dance, music, theatre, new media, and visual arts. Included are discussions of common themes and ideas, historical contexts, and social and cultural perspectives. The second phase of this course requires students to choose a concentration in two of the arts disciplines for more intensive study at the beginning level. Choices are made from the following:

Dance students explore multiple genres of dance through an exciting study of influential choreographers. We delve into modern dance, hip---hop, jazz/theater dance, and ballet by examining the technique, history, and repertoire associated with the choreographers. In the second semester, students study Merce Cunningham and his “chance procedures” as a basis for learning dance composition and developing a personal movement vocabulary.

Digital Video gives students the opportunity to explore various aspects of video production and relevant film---making technologies. Students will use available digital media at Packer to create individual and group projects that explore a variety of video---making themes. An on---going critical dialogue will be at the center of the production process.

Music offers students a hands---on experience with learning and improvising a various of rhythms and harmony using a variety of musical techniques. While playing authentic instruments such as congas, xylophones as well as exploring alternative instruments, such as PVC pipes and bucket drums, students are given the opportunity to expand their view of playing, improvising and composing. They come to respect musical systems that are as sophisticated as their own, learn musical terms and formal structures that are founded on a different logic, and develop a flexibility that allows them to approach new music with curiosity and enthusiasm.

Theater Introduction gives students the opportunity to work as an ensemble. Through voice and movement work, improvisation exercises and group games, they are encouraged to let down their guard and reveal who they are, without overemphasis on being funny or entertaining. Strong focus is placed on respect, effective listening, and teamwork. Students will come away with a greater sense of purpose and higher comfort level on stage, an understanding of some of the basic building blocks of acting, and experience performing long-form improvisation and excerpts from a variety of texts.

Visual Arts explores both observational and imaginative concepts in the visual arts. Students work with a variety of materials in a wide range of techniques, including drawing, painting, printmaking, sculpture, and mixed media. In addition to skill-building experiences students engage with autobiographical topics, and subjects drawn from the school, home, and city environments.

Available to Grade 9 students

Packer Dance Company

Arts	645	Fall/Spring	Credit: .5
PE	745	Fall/Spring	Credit: .5

Packer Dance Company is a performance troupe that helps dancers develop a professional approach to rehearsals and performances. Students are exposed to a variety of movement, repertoire, and music to as a way to learn choreography and experience being in a dance company. Dancers will develop technique, artistry, and performance skills, and will have to opportunity to perform original works created by the instructor at the end of each semester, either at Packer or outside venues. Packer Dance Company can be taken by semester or as a full-year of study (recommended).

Available to students in Grades 10 through 12 for Arts or PE credit

Dance Essentials

Arts	625	Full-Year	Credit: 1
PE	725	Full-Year	Credit: 1

This course is designed to help young artists explore their technique and choreographic voice. Focusing on modern dance, students will bring awareness to the body through a learned warm-up and sequences both across the floor and in the center. Principles of composition, choreography, and development of performance skills are covered throughout the year. We will create, rehearse and premiere a new work to be performed in the annual US Dance Concert. The choreography workshop portion of class allows each student to create and direct a dance for his or her own ensemble of dancers. Attendance at one performance of a professional dance company and two individual conferences with the teacher are also required.

Available for Arts or PE credit to students in Grades 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Choreography

Arts	635	Full-Year	Credit: 1
PE	735	Full-Year	Credit: 1

This course offers an opportunity to explore the study of choreography, improvisation, performance skills, and creative process through advanced compositional assignments. A major focus of the class is the required participation as a choreographer in the dance concert, which requires time out of class. While choreography is the most obvious element of this course, students also learn about costume design, lighting, leadership, and collaborative concert production. Attendance at one performance of a professional dance company and individual conferences with the teacher are also required.

Available for Arts or PE credit to students in Grades 10 through 12 who meet prerequisites:

- Arts 625
- Permission of the instructor

Packer Theatre Project**Arts****623/624****Fall/Spring****Credit .5**

Interested in all aspects of theatre production? This project is an incredible opportunity to become immersed in the process of creating an original performance piece. Working together (with a strong emphasis on *ensemble* and not solely on individual skill development), the 'company' of this class would work towards a public showing of their 'project'. 'Projects' could be adapted works, short plays, linked scenes, and so on. Each member of the PTP company will perform and as well a take responsibility for a production role. This would be a perfect match for those who want to keep theatre in their curriculum without making a full course commitment.

Available to students in Grades 10 through 12**ACTOR'S STUDIO****Arts****627****Full-Year****Credit: 1**

Actors have three main tools with which to work; their intelligence, their body and their voice. What training is necessary in these areas to enable an actor to tackle any role and produce a great performance? Actors' Studio explores ways in which the actor can build up their technique through exercises, work on scenes and work on speeches. Students in this class are encouraged and enabled to find their own 'voice', to stretch themselves by tackling challenging material in a safe and supportive context and to build up a 'tool box' of practical solutions to the exciting task of making successful performance choices. The texts used in this class are taken chronologically so students will finish the year with a working knowledge of Theatre History and having experimented with differing genres – from Ancient Greek Theatre, through Shakespeare and the Renaissance, Nineteenth Century 'realism', the great works of the 20th Century to contemporary Drama – practically and on stage. Each student is expected to engage with the Theatrical life of Packer and will have opportunities for public performance during the course. Through challenge, fun and developing discipline students will gain performance confidence, an understanding of the broad sweep of the History of Theatre and a refined sense of themselves as performers.

Available to students in Grades 10 through 12

**WILL POWER 5: Shakespeare Page to Stage:
WEAK KINGS AND WARRIOR WOMEN – THE WARS OF THE ROSES**

Arts 629 Fall Credit: .5

Shakespeare's histories present portraits of British monarchs that reflect and spread the history of Tudor times. As a historian-dramatist he took liberties with the Wars of the Roses histories in the interest of providing memorable personalities yet there are moments when Shakespeare can be remarkably historically accurate. He took into account the Elizabethan views and interpretations of their time and created legends that endure in contemporary imagination. Explore the strong female characters from different social positions that challenge the male historical record and serve as a critical observer to the struggles for political power and conquest. The Wars of the Roses is a time of dynastic insecurity, foreign menace and petty squabbling that wrestle with the Divine Right of Kings and the Great Chain of Being. Shakespeare provides tremendous opportunities to explore this humanity. This course is designed to analyze great plays but also to encourage an exploration into the playwright's devices and support the acting skills necessary to support an accurate portrayal of character – one that fosters an honest expression of human emotion.

Texts: *Richard II, Henry IV, Henry VI, and Richard III*, Shakespeare

This course is open to students in 11 and 12 grades and fulfills arts or academic credit

- Eligibility for the proposed London Theatre and History trip during Spring Break 2017

**WILL POWER 6: Shakespeare Page to Stage:
UNRULY WOMEN—THE PROBLEM PLAYS**

Arts 630 Spring Credit: .5

In the *Problem Plays* the journey of the play often takes twists and turns on a darker road. While most characters end up in a reasonable place they are seriously, sometimes irreversibly, damaged by the experiences they have within the life of the play. Shakespeare was the Elizabethan version of a modern day feminist. He showed in his work that sexuality and gender are ambiguous tools that could be used for more than what society said they could be. He showed that men could be women and women could be men, that gender roles can be reversed and that no social norm was concrete. The *Problem Plays* are focused on the idea of seeming and being – what is apparent and what is real (this can cover sex and human worth).

This course is designed to analyze great plays but also to encourage an exploration into the playwright's devices and support the acting skills necessary to support an accurate portrayal of character – one that fosters an honest expression of human emotion.

Texts: *All's Well that Ends Well, Cymbeline, Measure for Measure, and Troilus and Cressida*, Shakespeare

This course is open to students in 11 and 12 grades and fulfills arts or academic credit

Music Theory and Composition

Arts	652	Fall	Credit: .5
Arts	656	Spring	Credit: .5

This course includes music syntax, key signatures, and clefs and will progress to two (or four) part writing, Circle of Fifths and music analysis. There is no prerequisite for this course; however, students must be invested in the mechanics of music, specifically the musical score. This class is for all musical enthusiasts and will include dictation, sight-reading and listening analysis. This semester class will focus on music theory using visual, aural, and kinesthetic tools. Students will improvise and playing music on pitched and unpitched percussion instruments. Therefore, students will apply what they have learned to compose their own music.

This course is open to students in 11 and 12 grades and fulfills arts or academic credit

Packer Chorus

Arts	651	Full-Year	Credit: 1
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Do you like to sing? Do you enjoy working with others? Do you enjoy the process of learning music? Do you like to create beautiful tones? If your answer is yes to any of these questions, become a member of the Packer Chorus! The Packer Chorus presents two major school concerts each year and performs at numerous school functions. In addition, the chorus participates in outside events that include service learning experiences, trips and exchanges with other schools. Within the rehearsal, singers focus on breathing and vocal technique through a rigorous approach to practicing repertoire. Students also will learn basic score, music reading skills, and musicianship skills to incorporate through the repertoire. They acquire their aural musical skills, visual reading skills, and explore their imagination through movements and imagery exercises. Focus in class is on the development of a strong and independence people (singers!) who learn to have a healthy beautiful voice that blends seamlessly into the ensemble.

This course is open to students in Grades 9 through 12

Select Choir Apprentice Program

Arts	650	Full-Year	Credit: .25
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This program is open to 10th grade students who are passionate about singing, demonstrate a determination to pursue a higher skill level in music and have a high expectation of their own performance. Applicants must be self-motivated in order to reach a more advanced skills development in music learning, vocal techniques, and performance techniques. While applicants craft their independence and self-confidence through this program, they are expected to take a leadership position in the Packer Chorus throughout their sophomore year and expected to join Select Choir in 11th grade.

Available to students in Grade 10 with least one year of musical experience in any organized music ensembles or choirs inside or outside of school

Select Choir**Arts****650****Full-Year****Credit: 1**

The Select Choir is an advanced musical ensemble that sings all kinds of music; from classical to jazz; in engl and World Languages. The Select Choir tours internationally in alternate academic years. The rehearsal process focuses on how to blend and how to listen to each other while developing note-reading and sight-singing skills. Healthy tone production, performance etiquette and teamwork are of primary importance and students are expected to work diligently to prepare for concerts, as well as other school events. One of our goals is to create a musical language that allows us to perform diverse choral music with beauty, integrity and rhythmic precision.

Available to students in Grade 11 and 12 who meet prerequisites:

- At least one year of musical experience in any organized music ensembles or choirs
- Approval of the instructor

The Packer Orchestra**Arts****653****Full-Year****Credit: 1**

The Upper School Orchestra is the core of the Upper School String Program. The ensemble performs a wide variety of repertoire spanning from the orchestral canon to contemporary and world music. In order to gain a richer understanding of the works that we perform, exploration of the composers and music theory concepts related to each piece becomes part of the rehearsal process. Instrumental technique and ensemble playing (large and small) are integral aspects of our rehearsals, with the opportunity to divide into sectional practice between upper and lower strings. Each enrolled student is responsible for preparation of music and any related activity. As an extension of the skills developed in MS orchestra, attention is paid to working out finger placements, bowings, and other technical aspects of string playing. Further focus given on how to watch and interpret visual cues given by the conductor.

Available to instrumentalists in Grade 9 and 12**Chamber Ensemble****Arts****654****Full-Year****Credit: .5**

The Chamber Strings is an ancillary ensemble to the Upper School String Program. Students are given a platform for a traditional small string ensemble experience and work in performance as a collaborative group without a specific leader. (Members of the group support each other's musicianship so that the ensemble may successfully perform together without outside direction.) This ensemble will work in tandem to arrive at a musical and artistic consensus. Participating in such a group requires skills associated with small ensemble work: mutual cooperation, nonverbal communication, and a fairly strong knowledge of the score, to ensure cohesion within the group. Students will work to improve intonation skills and achieve a higher level of listening while sight-reading. Additionally, as a tightly knit team, this group performs more frequently than the full orchestra, and in a variety of collaborations with other performing ensembles, such as the Select Chorus, Jazz Band and others. Some of the proposed venues include art gallery openings and chamber music festivals. As this is a full year course, registration shall serve as acknowledgment.

Available to instrumentalists in Grade 9 and 12 with permission from the instructor

The Packer Wind Symphony**Arts****655****Full-Year****Credit: 1**

The Wind Symphony meets regularly as per its designated schedule. Each enrolled student is responsible for preparation of music and any related activity. Additionally, students may work in music history, theory, and other areas of musical interest, especially as these studies pertain to performance works in progress. Within this group, there exist multiple opportunities for playing smaller ensemble work by section, and /or chamber music coached by Packer music faculty or adjuncts. Additionally, from time to time, select members may be asked to join forces with the string orchestra.

Available to instrumentalists in Grade 9 and 12**Lab Band****Arts****657****Full-Year****Credit: .5**

Lab Band consists of jazz and pop style performance groups for students who aspire to the jazz band. Lab band meets regularly two times per week and additionally as warranted for each performance opportunity. Each student is responsible for preparation of music and any related activity. As the nature of jazz allows for improvisational technique, students in Packer's jazz band is encouraged to take an active role in soloing from given chord changes. Students are also encouraged to explore form and music theory, as improvisational work is predicated on knowledge of these formal applications.

Available to instrumentalists in Grade 9 and 12 with permission from the instructor**Packer Jazz Band****Arts****658****Full-Year****Credit: .5**

Steeped in Big Band Jazz and pop styles, this ensemble performs several times each year, including concerts with the Wind Symphony and its subsets, the Brass Choir and Woodwind Choir as well as its own designated formal concert setting. in designated chapel performances. The Jazz Band meets regularly each week as per schedule, and additionally as warranted by the needs of each concert. Each student is responsible for preparation of music and any related activity. We make it a point to study style as it relates to performance pieces, especially those works found in any reputable list of Jazz standards. This often means working within a framework of historical perspective. We engage in listening, review the lives of Jazz greats in their time, and explore features that distinguish one era in Jazz from another. As the nature of Jazz allows for improvisational technique, students in Packer's Jazz Band are encouraged to take an active role in soloing from given chord changes. Students will explore form and music theory, as improvisational work is predicated on knowledge of these formal applications.

Available to instrumentalists in Grade 9 and 12 with permission from the instructor

Digital Video: I**Arts****612****Fall****Credit .5**

Video storytelling is at the heart of this course designed to expose students to current and historic approaches to art making through an array of new media. A variety of projects are planned to enhance student understanding of video production and the synthesis of media that is at the core of the storytelling that shapes our world. The class will work with visiting filmmakers and artists through class visits and field trips. You can explore this course of study over 4 semesters beginning anywhere in the sequence. Each semester will have elements of team brainstorming, screenwriting, and storyboarding.

This course is open to students in grades 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Digital Video: II**Arts****615****Spring****Credit .5**

Video storytelling is at the heart of this course designed to expose students to current and historic approaches to art making through an array of new media. A variety of projects are planned to enhance student understanding of video production and the synthesis of media that is at the core of the storytelling that shapes our world. The class will work with visiting filmmakers and artists through class visits and field trips. Digital Video II students are expected to take on more of a leadership role in the class. At the same time, they will be expected to create a focused body of theme based work. You can explore this course of study over 4 semesters beginning anywhere in the sequence. Each semester will have elements of team brainstorming, screenwriting, and storyboarding.

Available to students in Grade 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Video Journalism (two options)**Arts****633/634****Fall/Spring****Credit .5****English****166/170****Fall/Spring****Credit .5**

This course is for budding videographers, journalists, and documentarians who have already taken Introduction to Journalism or Video Journalism. Students will continue to learn the fundamentals of broadcast journalism and video production to create video broadcast reports on current issues of interest and concern to the Packer community. Stories will be published routinely on *The Prism* website, providing opportunity for collaboration with *The Prism* editors.

This course is open to students in grades 11, 12 and second semester sophomores who have completed Introduction to Journalism

Prerequisites:

- Introduction to Journalism (see English Curriculum) or Video Journalism

Sculpture**Arts****687****Fall****Credit: .5**

Sculpture is the art of creating in three dimensions. This course will include work with traditional sculpture materials such as clay, wood, plaster, found objects, wax, stone, paper and cardboard as well as with less traditional materials such as light, water, ice, and mirrors.

Students will learn how to model with clay from direct observation, how to carve form, how to build and construct three-dimensional structures with wood. They will learn concepts about the use of empty space in relation to solid form and about the use of movement in sculpture. They will experiment with site-specific installations and other temporary sculptural forms. There will be periodic sculpture assignments given as homework and one museum report.

Available to students in Grade 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Studio Art I**Arts****631****Fall****Credit: .5**

This course is designed to immerse students in a broad range of visual arts experiences in drawing and printmaking. Through the use of a wide variety of techniques, materials, and visual concepts, students explore realism, abstraction, and self-expression. The drawing sequence includes figure drawing, observation drawing, imagination and conceptual drawing. Students will use both traditional and new drawing mediums, such as pencil, pastel, charcoal, ink, watercolor, collage, mixed media, and computer. Weekly entries in a personal sketchbook and several independent museum visits are required.

Available to students in Grade 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Studio Art II**Arts****632****Spring****Credit: .5**

This course is designed to explore a wide range of visual arts experience through painting. The projects explore observational, abstract and non-representation approaches. Painting mediums include tempera, acrylic, oil and mixed media outcomes. By the end of the course, students are encouraged to develop their own project-based series of paintings. Weekly entries in a personal sketchbook and several independent museum visits are required.

Available to students in Grade 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Advanced Topics Studio Art: Level 1 (Junior year) and Level 2 (Senior year)			
Arts	681	Full-Year	Credit: 1
<p>This course comprises the third year and fourth year of visual arts offerings. Students will each create a comprehensive portfolio in response to independent assignments and class projects, as well as self-initiated work. In the junior year, a wide range of visual arts experiences are structured to give breadth both in terms of use of materials and visual arts concepts while in the senior year students are expected to foster and bring to fruition ambitious projects of their own conception and direction. Portfolios are comprised of two major areas; concentration and breadth. The concentration area allows you to develop in depth a single compelling theme or concept, while the breadth section includes a range of work using different media and visual art concepts. While work created in the course serves as the body of the portfolio, each student is expected to complete substantial assignments not covered in class. Portfolio development is discussed in periodic seminars with the instructor. The completed portfolios will be reviewed in May by a panel of artists typically drawn from the Packer community and from among Packer alums who have gone on to establish careers in art. This course is open to students in grades eleven and twelve and occasionally to sophomores by special permission of the instructor.</p> <p>Available to students who meet prerequisites:</p> <ul style="list-style-type: none"> • Consistent demonstration of attributes of students successful in Advanced Topic and Accelerated Course Criteria (see page 5 of this Curriculum Guide) • Completion of a year of intermediate art or equivalent 			

Photography: Method and Concept			
Arts	622	Full-Year	Credit: 1
<p>In this era of smart phones almost everyone takes photographs, hundreds of them. What qualities make a photograph “good”, one that stands out from the crowd of snapshots? This course is designed to develop in students an awareness of effective composition, an understanding of the important role that light plays in taking pictures, and a capacity to look at the ordinary in totally new ways.</p> <p>Students will be taking pictures with both film and digital cameras and working in the darkroom to learn the traditional methods of making photographic prints. Students will learn to articulate their understandings about photography through speaking and writing about the work of other photographers as well as through discussions of their own work. The sequence of photographic assignments covers a wide range of subject matter including portraits, still life, and the city, as well as important aspects of picture--- taking such as light, vantage point and composition. It is helpful but not essential to have a digital camera.</p> <p>The school provides film cameras for use in class. Students purchase film and photographic paper for darkroom work.</p> <p>Available to students in Grade 10 through 12 who meet prerequisites:</p> <ul style="list-style-type: none"> • Arts 610 • Permission of the instructor 			

Advanced Topics Photography: Level 1 (Junior year) and Level 2 (Senior year)
Arts 682 Full-Year Credit: 1

The Advanced Topics Photography course provides an in-depth experience to students who wish to pursue photography with dedication and concentrated focus. The end goal is a portfolio, which represents a student's best efforts from both creative and technical standpoints. The final portfolio will demonstrate both a broad understanding of photographic concepts and will, most importantly, include a thorough photographic exploration of a self-selected theme. More demanding than first year photography, this course requires students to demonstrate a high level of engagement in both class-work and homework. Students are encouraged to push the limits of their creativity and conceptual understanding, through both their creative efforts and their written and verbal efforts to "read" and analyze photographs. A central feature of the class will be visits from professional photographers who will offer consultation and feedback to students during the course of the year as well as evaluate portfolios at the end of the year.

Available to students who meet prerequisites:

- Consistent demonstration of attributes of students successful in Advanced Topic and Accelerated Course Criteria (see page 5 of this Curriculum Guide)
- Completion of a year of intermediate art and/or photography with a grade of B+
- A portfolio of 5 photographs or other artwork to be presented to and discussed with the instructor

Life's Big Questions: On Origin, Identity, and Purpose
Arts 684 Spring Credit: .5

This interdisciplinary course is designed to engage students in an in-depth personal and philosophical exploration of origin, identity, and purpose.

Where did we come from? Who are we? Where are we going? These three essential questions will be approached through a variety of perspectives using a combination of readings, discussions, guest speakers, videos, field trips, and student-driven projects. A distinctive feature of the course will be the regular inclusion of guest speakers and panels, many from within the Packer community, who will give short TED talk-like presentations on topics from a range of disciplines including science, religion and spirituality, the arts, psychology, and more. Class discussions will explore subjects such as love and friendship, parenthood, happiness, and how one creates a meaningful life. Students will create a project that will be presented towards the end of the course in a public forum and there will be periodic journal entries based on readings and personal reflection.

Available to students in Grades 11 and 12 (or by permission) for Arts or academic credit

Physical Education and Athletics

Physical Education Department Head: Pippa Mayell

Athletic Director: Darrin Fallick

The Physical Education program in the Upper School seeks to develop each student's appreciation of and commitment to lifelong personal health and fitness through participation in individual and team sports. The physical education program recognizes the wide range of abilities and interests of its students and seeks to offer choice and flexibility in order to encourage maximum participation and enjoyment. To achieve these aims, Packer offers instruction in the following activities: volleyball, soccer, basketball, softball, floor hockey, fitness and weight training, climbing wall activities, yoga.

Requirements:

Physical Education is required each year and meets twice a week for the entire year. Students must pass eight semesters of physical education in the Upper School to graduate.

All students are required to register for a full year of physical education during the registration process the previous school year; students can fulfill this full-year requirement through the variety of options listed below.

Any student who is registered for and participating in a physical education class and who obtains a place on a team will be allowed to complete an add/drop form during a determined period of time at the beginning of each season.

Physical Education

PE 711/712 Fall/Spring Credit: .5

Students participate in a variety of sports and activities, including some or all of the following: soccer, floor hockey, ultimate Frisbee, basketball, volleyball, adventure activities and cooperative games, and fitness and weight training. The class aims to encourage maximum participation and to develop an appreciation and understanding of personal fitness and the importance of developing lifelong habits of physical activity.

Yoga I - Beginner

PE 713/714 Fall/Spring Credit: .5

Yoga I is open to all Upper School students. No prior yoga experience is necessary. Yoga postures are introduced, practiced, and combined with relaxation and breathing exercises, meditation, and philosophy.

Yoga II – Intermediate/Advanced

PE 718/717 Fall/Spring Credit: .5

Yoga II is appropriate for those students who have developed their Yoga practice at Packer for a year or more, or who come to Packer with significant prior experience.

Personal Fitness Boot Camp.

PE 761 Fall Credit: .5

Students will participate in a structured fitness program that will focus on all aspects of fitness, including; stability, agility, flexibility, strengthening, cardiovascular work, and injury prevention. Students will learn how to create their own workout programs that will challenge their fitness in multiple ways. They will also incorporate mobility, stability, and agility exercises that will help develop the body in a balanced manner, providing protection from injury. The entire kinetic chain will be addressed. Cutting edge developments and techniques within the sports medicine industry, such as movement preparation/dynamic warm-up, myofascial release and the functional movement screen (FMS) will be used to help students develop and understand optimal fitness.

AED/CPR/First Aid

PE 762 Spring Credit: .5

Students will receive a two- year certification by the American Heart Association (AHA) in cardiopulmonary resuscitation (CPR), automatic external defibrillation (AED) and first aid for the adult, child, and infant. Students will learn the processes involved with anatomy and physiology during health related emergencies, and how to provide the most efficient immediate care. These health emergencies include allergies, asthma, diabetes, skin and wound care, spinal injuries, head injuries/ concussions, sprains, strains, fractures, and internal injuries.

Physical Education Independent Study 2.0

PE 699/670 Fall/Spring Credit: .5

Physical Education Independent Study may be completed outside of school, if a student is already training and competing, at a high level in a sport not offered by Packer, (e.g. Fencing or Ice Skating.) Students **MUST** meet with Pippa Mayell to confirm their eligibility. Once confirmed, they must provide contact details for their coach and club, a practice/game schedule, and keep a detailed workout journal.

Physical Education Independent Study 2.0

PE 696/7 Fall/Spring Credit: .5

Physical Education Independent Study is offered to students in the 11th and 12th grade ONLY. Having set a specific goal and completed an initial assessment, students are required to complete approximately two 40 minute sessions in the Fitness Center per week. Each session must be documented and signed by a supervisor. Regular check-ins with their PE supervisor are required to ensure students are on track.

Dance Essentials

Arts	625	Full-Year	Credit: 1
PE	725	Full-Year	Credit: 1

This course is designed to help young artists explore their technique and choreographic voice. Focusing on modern dance, students will bring awareness to the body through a learned warm-up and sequences both across the floor and in the center. Principles of composition, choreography, and development of performance skills are covered throughout the year. We will create, rehearse and premiere a new work to be performed in the annual US Dance Concert. The choreography workshop portion of class allows each student to create and direct a dance for his or her own ensemble of dancers. Attendance at one performance of a professional dance company and two individual conferences with the teacher are also required.

Available for Arts or PE credit to students in Grades 10 through 12 who meet prerequisites:

- Arts 610
- Permission of the instructor

Choreography

Arts	635	Full-Year	Credit: 1
PE	735	Full-Year	Credit: 1

This course offers an opportunity to explore the study of choreography, improvisation, performance skills, and creative process through advanced compositional assignments. A major focus of the class is the required participation as a choreographer in the dance concert, which requires time out of class. While choreography is the most obvious element of this course, students also learn about costume design, lighting, leadership, and collaborative concert production. Attendance at one performance of a professional dance company and individual conferences with the teacher are also required.

Available for Arts or PE credit to students in Grades 10 through 12 who meet prerequisites:

- Arts 625
- Permission of the instructor

Packer Dance Company

Arts	645	Fall/Spring	Credit: .5
PE	745	Fall/Spring	Credit: .5

Packer Dance Company is a performance troupe that helps dancers develop a professional approach to rehearsals and performances. Students are exposed to a variety of movement, repertoire, and music to as a way to learn choreography and experience being in a dance company. Dancers will develop technique, artistry, and performance skills, and will have to opportunity to perform original works created by the instructor at the end of each semester, either at Packer or outside venues. Packer Dance Company can be taken by semester or as a full-year of study (recommended).

Available to students in Grades 10 through 12 for Arts or PE credit

Athletics

Students can choose from a variety of team sports for interscholastic competition:

Fall:

Girls JV Volleyball
Girls Varsity Volleyball
Girls Varsity Soccer
Boys JV B-Team Soccer
Boys JV Soccer
Boys Varsity Soccer
Girls Varsity Cross Country
Boys Varsity Cross Country

Winter:

Girls JV Basketball
Girls Varsity Basketball
Boys JV Basketball
Boys Varsity Basketball
Girls Varsity Swim
Boys Varsity Swim
Coed Varsity Squash
Girls Varsity Indoor Track
Boys Varsity Indoor Track

Spring:

Boys JV Baseball
Boys Varsity Baseball
Girls Varsity Softball
Boys Varsity Volleyball
Girls Track & Field
Boys Track & Field
Boys and Girls Ultimate Frisbee

Participation on one sports team may be used to satisfy one semester of physical education credit each year. Participation on two or more teams may be used to satisfy an entire year of physical education credit.

The following table shows during which quarters and/or semesters the credit will count.

Physical Education/ Athletic Team Exemption

Fall Sports

Sport	Quarters Exempt	Semester Grade
Girls JV Volleyball	1 and 2	1st
Girls Varsity Volleyball	1 and 2	1st
Girls Varsity Soccer	1 and 2	1st
Girls Varsity X-Country	1 and 2	1st
Boys JV B Soccer	1 and 2	1st
Boys JV Soccer	1 and 2	1st
Boys Varsity Soccer	1 and 2	1st
Boys Varsity X-Country	1 and 2	1st

Winter Sports

Sport	Quarters Exempt	Semester Grade
Girls JV Basketball	2 and 3	2nd
Girls Varsity Basketball	2 and 3	2nd
Girls Varsity Swim	2 and 3	2nd
Girls Varsity Indoor Track	2 and 3	2nd
Boys JV Basketball	2 and 3	2nd
Boys Varsity Basketball	2 and 3	2nd
Boys Varsity Swim	2 and 3	2nd
Boys Varsity Indoor Track	2 and 3	2nd
Co-ed Varsity Squash	2 and 3	2nd

Spring Sports

Sport	Quarters Exempt	Semester Grade
Girls Varsity Softball	3 and 4	2nd
Girls Varsity Track & Field	3 and 4	2nd
Boys JV Baseball	3 and 4	2nd
Boys Varsity Baseball	3 and 4	2nd
Boys Varsity Volleyball	3 and 4	2nd
Boys Varsity Track & Field	3 and 4	2nd
Boys & Girls Ultimate Frisbee	3 and 4	2nd

Students may also fulfill their Physical Education credit by working as a manager for an athletic team.

Expectations for Managers of Athletic Teams

Managers will be expected to fulfill the following in order to receive Physical Education credit for one semester:

1. Complete one training session organized by the Athletic Director.
2. Complete one session in the Fitness Center per week - recorded, signed by a supervisor, and handed in to the team coach. (This requirement may be fulfilled by participation in a team practice, if deemed appropriate by your coach.)
3. Attend all games during the season to fulfill duties appropriate to the team sport. Duties may include assisting with equipment, set up, score keeping, record keeping, running the clock, calling lines, writing up game and practice schedules, etc.
4. Managers are exempt from PE class for the duration of the season. They must return to PE (Fall sports) or begin a PE class (Spring sports) when they are not in season. Basketball managers are exempt for the semester, due to the length of the season.
5. Managing an Athletic team may only be used for **one** semester of PE credit per year.

NOTE

1. Students who are registered for a physical education class that takes place in the fall and who decide to participate in a winter team sport **must** remain in their assigned class until they have made the team.
2. Students who, in the course of the school year, play one sport only in winter, **must** take PE 1st and 4th quarter, and will be exempt from PE, 2nd and 3rd quarter, during their season.
3. First time spring sport participants, if they are not coming off a winter season, **must** be in a second semester physical education class until they are assured of making the team.
4. If the number of students trying out for a team is more than the team can carry, cuts may be made. If this is the case, all students in jeopardy of not making a team **must** be enrolled and participating in a physical education class until they have made the team.

Health

Department Head: Karen Brandt

The purpose of Upper School health education is to review and build upon the foundational concepts of Lower and Middle School Health: self esteem, interdependence, awareness of and respect for diversity, decision-making skills, and community membership. A one-quarter course in ninth grade, a year-long course in tenth grade and a one-quarter course in the 12th grade concentrate on life skills topics, which empower students to consider themselves as responsible, contributing members of their various communities, while providing opportunities for explorations of personal decision-making and social identifiers.

The Upper School health courses are designed to inspire students to take responsibility for their choices, understand their consequences, and be able to appreciate their value as learning experiences.

Grade Nine (Required)

Health 751 Fall Credit: .5

Health 9 focuses on the transition from middle to upper school. The program covers: stress reduction, effective communication, and risk reduction strategies.

Grade Ten (Required)

Health 752 Spring Credit: .5

This course focuses on drugs/alcohol, mental health, the politics of food/nutrition and human sexuality. Through interactive class discussion, critical film viewing, and guided exploration of Internet sources, students in this class will expand upon their knowledge of these topics and consider practical applications to their own lives as upper school members. Students are expected to use their own opinions and life experiences as food for thought and as catalysts for expanding each other's knowledge. Assessment, projects, and assignments will include written quizzes, personal narrative, and oral presentation.

Peer Support Team Training

Health 754 Full-Year Credit: .5

The purpose of this course is to train team members in preparation for becoming partner leaders of small groups of ninth grade students. Through an extensive, yearlong process, students in this course will learn to be role models, mentors, and group leaders of younger peers. The course covers the following topics and skills: listening techniques, non-judgmental dialoguing and communication, confidentiality, establishing and implementing group community norms, understanding group dynamics, group facilitation, risk taking, the art of open mindedness and inquiry, creating new group exercises, practicing all the skills learned, and serving the community.

Students are selected by a four-week process completed during the previous spring semester.

Peer Support Team Training
Health

760

Full-Year

Credit: .5

The purpose of this course is to provide Upper School students with the tools to facilitate peer sessions for seventh grade students. PALS leaders are trained to mentor and support seventh graders through instructive group activities and discussions. During the fall training retreat, the students develop active-listening techniques, learn about strategies to help establish and implement group guidelines, gain tactics for effective conflict resolution, and create activities to promote team unity and build trust in a group. Throughout the year, peer leaders hone their group facilitation and mentoring skills in their bimonthly sessions with their seventh graders.

Students are selected by a four-week process completed during the previous spring semester.