



The Packer Collegiate Institute 2020- 2021 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 their 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 a fine art elective. Additionally, freshmen take an introductory physics course, a world language class, mathematics, an introduction to the field of computer science, and a health seminar. Freshmen also participate in Packer's peer support program.

The **sophomore year** focuses on the *American experience* from both a historical and 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. (Do note that 11/12 grade students receive priority for electives.) Some students elect to enroll in a second world language, journalism, computer science, authentic science research through a multi-year "Independent Science Research Program," or a visual, dance, musical or theater arts course to round out their second year of Upper School.

The **junior year** 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 and arts departments enable students to pursue particular strengths and talents.

Graduation Requirements

- Eight semesters of English
- Six concurrent semesters of a World Language
- Six semesters of Mathematics
- Six semesters of History
- Six semesters of Sciences
- Four semesters of Elective Courses
 - One semester credit in Computer Science completed during 9th grade
- Four semesters of Arts
- Eight semesters of Physical Education
- Two semesters of Health to be completed in the 10th grade
 - The Health program includes quarter long courses in the 9th & 12th grade
- Completion of the Community Engagement requirement

Participation in Accelerated and/or Advanced Topic coursework

Students will be granted approval to participate in an accelerated and/or advanced topic course by the appropriate department head based upon the course prerequisites listed in the course description. This approval will be shared with the student through the student's advisor. Students who are interested in taking an accelerated or advanced topic course for which the student was **not** approved may initiate a petition by speaking with the student's dean.

A schedule of five academic subjects is required for most students. Given the rigor of our overall program and our students' dedication to significant co-curricular endeavors, juniors and seniors are counseled not to take more than two AT or advanced courses each year.

Students participating in a study abroad program may participate in Advanced Topics courses for the first semester. Non-traveling, qualified students will be prioritized over qualified study abroad students. Students studying away during the first semester will be unable to join a year-long Advance Topics course for the second semester.

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 attributes are used by teachers and Department Heads to make enrollment decisions for all Advanced Topics courses.

Attitude Towards Learning

Is open-minded and intellectually curious
Consistently goes beyond expectations

Work Habits

Is proficient in organization and time management
Has a well-developed work ethic and is 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
Demonstrates strong analytical and problem-solving skills
Has strong oral presentation skills

Content Mastery in Related Discipline

Generates insights and connections independently
Demonstrates 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 for academic credit 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. Students will present a synopsis of their project during the programmed Independent Study Share. At the end of the project, each student will determine, in conjunction with their mentor, if they have 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.

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.

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/online 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.

Course Descriptions

The course descriptions that follow represent a complete listing of courses offered in the upcoming school year (2020-2021). Some elective courses are taught every other year to ensure the widest array of choices is available to Packer students. When course title differs from the transcript title, the transcript title has been added in brackets.

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.

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. 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 for AT English (see requirements below) can enroll in one of the yearlong Advanced Topics English courses 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.

Year-long journalism classes (see Academic Electives) are open to tenth, eleventh, and twelfth grade students and are taken **in addition to** 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 Upper School. Students examine diverse literary works about the nature of self, exploring both internal and external conflicts. Through class discussion, note-taking, and annotation, students grow as critical readers. Students also develop techniques of self-expression in their writing, composing analytical and imaginative pieces, including poetry and dramatic monologues. By actively engaging in the revision process, students learn that good writing involves rewriting. Performance-based work is another significant component of the course.

Texts may include:

- *Persepolis*, Marjane Satrapi
- *Fires in the Mirror*, Anna Deveare Smith
- *Under the Udala Trees*, Chinelo Okparanta
- *Macbeth*, William Shakespeare

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 number of forms, but the course emphasizes various modes of analytical writing. Students study grammar and vocabulary throughout the year.

Texts may include but are not limited to:

Works by Ralph Waldo Emerson, Henry David Thoreau, Walt Whitman, Emily Dickinson, Kate Chopin, Sui Sin Far, Frederick Douglass, F. Scott Fitzgerald, Moises Kaufman and Members of the Tectonic Theater Company, and James Baldwin.

Fall English Electives - Grades Eleven & Twelve

African-American and Afro-Caribbean Literature*

English

165

Fall

Credit: 0.5

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*, by Toni Morrison; *School Days*, by Patrick Chamoiseau; *Brer Rabbit* and other African-American and African folktales; and, poetry, rap, and hip-hop.

New York City in Literature*

English

154

Fall

Credit: 0.5

New York City in Literature explores the evolution of the New York character through literary, social, and historical texts. Through lively discussion, reading, and writing (of which there are several formal and informal essays, as well as a creative/analytical project and a number of shorter written responses), together we investigate the recurring themes of identity & personal journey, both metaphorical and literal, in the New York experience.

Through the lenses of Naturalism and 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, Amiri Baraka, Larry Kramer, Jay McInerney, James Baldwin, Edwidge Danticat, and Junot Diaz.

Family Matters in Literature*

English

197

Fall

Credit: 0.5

The historical and social realities of our lives are written into the essence of our beings and inform how we exist in the world, how we connect to people, how we deal with tragedy, how we survive, and how we construct the meaning of “family.” In an exploration of familial relationships, particularly the relationships between parents and children, and the external forces that shape identity, we will engage in conversations about how we become the people we are and how we deal with the convergence of our own realities and the legacies of our parents as we define our identities. Additionally, the course will consider the necessity of storytelling and how art and literature seek to explain traumatic events that are often inscrutable, frequently beyond comprehension.

Texts may include selected poems and short writing in addition to Nella Larsen’s *Passing*, J.M. Coetzee’s *Disgrace*, Kazuo Ishiguro’s *A Pale View of Hills*, and Ocean Vuong’s *On Earth We Are Briefly Gorgeous*.

Note: The content of the course deals with heavy and potentially triggering topics.

Science Fiction as Literature*

English

146

Fall

Credit: 0.5

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.

Natural Selections: Literature, History, and Politics of the Environment*

English

144

Fall

Credit: 0.5

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.

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: Ralph Waldo Emerson, Henry David Thoreau, John Muir, William Cronon, Aldo Leopold, Edward Abbey, Rachel Carson, N. Scott Momaday, Annie Dillard, David Quammen, Elizabeth Kolbert, W.E.B. DuBois, bell hooks, Carolyn Finney, Barry Lopez, David Mas Masumoto, J. Drew Lanham, Bill McKibben, Katharine Hayhoe, and Rahawa Haile.

Available to students for history or English credit

Creative Nonfiction Writing in the Digital Age

English

152

Fall

Credit: 0.5

Print may not be quite dead, but there’s no denying that digital publishing is our primary source of reading material. 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 politics? 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, including the knotty world of using photographs. You’ll write as professional writers do: getting feedback, revising, and considering the audience, and you’ll learn advanced research methods along with literary techniques so that you can write absorbing, relevant, entertaining prose.

Latin American Literature (in translation)*

English

145

Fall

Credit: 0.5

The biggest literary explosion of the 20th century, the Latin American "Boom," produced such writers as Gabriel Garcia Marquez, Carlos Fuentes, 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), the short stories of Cortazar (where people transform into salamanders), and Fuentes (where an ancient Rain God comes back to life in modern Mexico), and Ariel Dorman's play *Death and the Maiden* (where a run-in between a former torturer and torture victim leads to an impromptu "trial"). 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.

Persuasive Writing and Rhetoric

English

159

Fall

Credit: 0.5

This course addresses the power of persuasive writing and rhetoric in today's world. By analyzing iconic speeches, advertisements, stand-up comedians, spoken word artists, and political campaigns, students will learn the elements of persuasive writing and rhetoric. Through a study of voice techniques, stage presence, and nonverbal communication, students will then master the delivery of a memorable speech. Students will write and deliver persuasive speeches, write persuasive letters, design advertisements, write analyses of speeches, provide written feedback to peers, and submit a reflection on their own speeches and growth.

Texts may include: *Freeing the Natural Voice* by Kristin Linklater, *Presence* by Amy Cuddy, *The Greatest Speeches of All Time* (audiobook), *Quiet: The Power of Introverts in a World That Can't Stop Talking* by Susan Cain, and various TED Talks, podcasts, and stand-up routines.

Creative Writing: Short Fiction

English

169

Fall

Credit: 0.5

In Creative Writing: Short Fiction, students 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; writing on specific themes, etc.

The course is grounded in a workshop setting, with two required ten-to-fifteen page stories due, one per quarter, as well as written responses to 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.

Queer Voices in Literature*

English

192

Fall

Credit: 0.5

This course will explore and interrogate evolving socially-constructed conceptions of gender and sexuality. We will study literary, historical, musical, and filmic texts in order to consider the scope of influence that heteronormative and cis-gendered expectations and privilege have had on those who do not conform to or benefit from them. We will look at how artists challenge and subvert sexual and gender norms, making the supposedly unspeakable and invisible heard and seen. Our work will also extend past the theoretical as we meet with individuals and organizations involved in social and political activism who seek to build power within LGBTQIA+ communities and their allies.

Texts may include the work of:

- Oscar Wilde, Audre Lorde, James Baldwin, Tony Kushner, Alison Bechdel, Larry Kramer, David Henry Hwang, Patricia Highsmith, Justin Torres
- Janelle Monae, Queen, David Bowie, Frank Ocean, Rufus Wainwright, RuPaul
- Barry Jenkins, Gus Van Sant, Kimberly Pierce, Todd Haynes, Jill Soloway

Note: Most, if not all texts studied, will feature “mature” language and themes.

Classical Journeys in Literature*

English

195

Fall

Credit: 0.5

Something about a journey spurs the imagination: venturing off to experience the unknown has inspired people throughout time and across cultures. If we can't literally seek far-flung and exotic places, we can revel in those who do. In this class we will journey alongside some of literature's famous wanderers. We will sail with Odysseus as he battles monsters, natural disasters, and his own curious nature en route to his beloved Ithaca. We will journey with Dante into the darkest levels of hell as the poet seeks his soul. And we will venture with Antigone as she attempts to understand honor, loyalty, and civil disobedience in the Ancient world. Ultimately, these readings should not be vicarious travels only. All of these stories should bring us closer to an understanding of ourselves as we seek to find what is significant about our own journeys. In Classical Journeys we read Homer's *Odyssey*, Dante's *Inferno*, and Sophocles' *Antigone*, and we will explore what these ancient stories reveal about human nature, relationships, values and other cultures.

Spring English Electives - Grades Eleven & Twelve

Literature and Adaptation*

English

149

Spring

Credit: 0.5

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; Tao Te Ching; The Tao of Pooh; Into the Wild; Grimm's Fairy Tales; excerpts from Shakespeare, the Romantic poets, and musical selections.

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

New York City in Literature*

English

154

Spring

Credit: 0.5

New York City in Literature explores the evolution of the New York character through literary, social, and historical texts. Through lively discussion, reading, and writing (of which there are several formal and informal essays, as well as a creative/analytical project and a number of shorter written responses), together we investigate the recurring themes of identity & personal journey, both metaphorical and literal, in the New York experience.

Through the lenses of Naturalism and 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, Amiri Baraka, Larry Kramer, Jay McInerney, James Baldwin, Edwidge Danticat, and Junot Diaz.

Literary Explorations of Scripts and Films

English

143

Spring

Credit: 0.5

Think about your favorite movie. Now take a moment and think about how many people were needed to bring the story to the screen. Some films employ hundreds, even thousands, of people in the process of taking a script idea to a finished film. No matter the size and scale of the cinematic endeavor, all movies originate with a writer and a piece of paper. We will look at how to create this paper: the screenplay. Unlike a short story or a novel, a screenplay is a piece of literature meant to be enacted and transformed. It is a blueprint for a larger and interactive creative process. This class will explore the ways in which a screenplay provides the blueprint for what we see on the screen, preparing students to create the blueprint itself through practicing the craft of screenwriting. Students will learn about screenwriting through exploring elements of dramatic structure; studying existing scripts and their corresponding films; and, finally, writing and workshopping their own creative endeavors, culminating in a short film script.

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

Writing about Film

English

142

Spring

Credit: 0.5

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 will examine movies that do all of those things. 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 responses, a film review, a film analysis, a cinematography project, and a self-designed final project.

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

Creative Writing: Short Fiction

English

169

Spring

Credit: 0.5

In Creative Writing: Short Fiction, students 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; writing on specific themes, etc.

The course is grounded in a workshop setting, with two required ten-to-fifteen page stories due, one per quarter, as well as written responses to 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.

The Literature of Modern Drama*

English

155

Spring

Credit: 0.5

With the controversial slammed door of its finale, Ibsen's *A Doll's House* opened the door to the revolutionary world of modern drama and its exploration of complicated relationships. This course will examine a number of the plays post Ibsen that turned the contemporary theater world on its head and which examine relationships in interesting ways. The plays we will read include but are not limited to: Tennessee Williams's *A Streetcar Named Desire* which Arthur Miller claimed: "Threw the doors open on the theatre world," Beckett's *Waiting for Godot* with its characters who speak to fill a void and to silence their existential dread, and Lydia Diamond's *Stick Fly* which examines the role that class, race, and gender play in a family and in the larger world. During the semester, we will examine the texts of at least six plays, have actors, directors and playwrights in to explore the text with us, and see two productions on and/or off Broadway.

Poetry*

English

193

Spring

Credit: 0.5

This course will immerse students in the study and craft of poetry. We will combine critical analysis with continuous creative practice. We will read different forms in our study of work by poets across time, place, experience, and perspective. We will also write poetry of all types, with a particular emphasis on imitation, form, and revision. The final product of the course will be a portfolio of original work that will have been built through a deeper appreciation of the process of crafting and analyzing poetry.

Texts will include *The Making of a Poem*, ed. Mark Strand and Eavan Boland, various collections, and poetry podcasts.

Modern Journeys in Literature*

English

196

Spring

Credit: 0.5

Journeys of the hero are not solely the provenance of men of the ancient world; the modern world has certainly produced its share of female explorers, seekers, and heroines. This class will examine modern tales of women on journeys to find meaning, purpose, and a place in the world. We will examine Madeleine Miller's novel *Circe* which positions a minor character in *The Odyssey* as a formidable hero in her own right, battling the male gods set on limiting her power. We will then study Mexican novelist Valeria Luisella's "electric, elastic, alluring" *The Lost Children Archive* which chronicles the concurrent journeys of a woman and her family heading to the Southwest and a group of Mexican children attempting to make the harrowing journey to America. We will finish the semester with a modern retelling of *Antigone*, examining the context of the ancient play in the modern world.

Family Matters in Literature*

English

197

Spring

Credit: 0.5

The historical and social realities of our lives are written into the essence of our beings and inform how we exist in the world, how we connect to people, how we deal with tragedy, how we survive, and how we construct the meaning of “family.” In an exploration of familial relationships, particularly the relationships between parents and children, and the external forces that shape identity, we will engage in conversations about how we become the people we are and how we deal with the convergence of our own realities and the legacies of our parents as we define our identities. Additionally, the course will consider the necessity of storytelling and how art and literature seek to explain traumatic events that are often inscrutable, frequently beyond comprehension.

Texts may include selected poems and short writing in addition to Nella Larsen’s *Passing*, J.M. Coetzee’s *Disgrace*, Kazuo Ishiguro’s *A Pale View of Hills*, and Ocean Vuong’s *On Earth We Are Briefly Gorgeous*.

Note: The content of the course deals with heavy and potentially triggering topics.

Advanced Topics in English - Grades Eleven & Twelve

Criteria for Admittance to AT English

In order to qualify for an AT English class, tenth and eleventh grade students must:

- Earn an A- or above average through tenth or eleventh grade English respectively or a B+ or above in their AT English class **and maintain that average through year’s end**
- Have the support of their current English teacher
- Meet the general AT criteria as noted in this Guide
- Submit an analytical essay (in electronic or hard copy format) that was written in their current English class and that reflects a foundation on which to build AT-specific skills (see skills noted below). Teacher’s comments must be included with the work. This essay will be submitted when students sit for the timed writing piece and will be reviewed by a departmental committee.
- Complete a short, timed writing piece that will be reviewed by a departmental committee for indications of a foundation on which to build AT-specific skills. *Students who meet the first three criteria can sit for this assessment, which will be administered in early April.*

NB: Beginning in 2020-21, juniors who do not take AT English in their junior year but who want to take AT English in their senior year will have to take at least one semester of a literature-based elective in their junior year in order to qualify for an AT class in 2021-22. An asterisk has been placed next to these electives.

Placement decisions will be made by the English department head in consultation with English teachers and the AT English instructors.

These criteria distinguish AT English courses:

- a) Students not only follow form but construct it, experimenting with myriad writing genres and exploring the relationship between structure and meaning
- b) Students engage with challenging texts and content (both primary and supplementary material)
- c) The most heavily-weighted assignments challenge students' critical thinking skills and overall initiative
- d) Teachers have increased expectations for writing assessments in terms of content and style
- e) Students produce graceful, technically proficient writing that has style and voice
- f) Students demonstrate skillful use of high-quality, credible, relevant sources

Advanced Topics in English: Unconventional Narratives

English

160

Full-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?

In this Advanced Topics course, we will study writers and works that depart from the traditional, exploring works that experiment with structure, storytelling, and perspective. 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 relationship with and perception of literature. *Texts include Mrs. Dalloway; The Travelers; The Other Americans; There, There; Atonement, Fun Home, and films.*

Advanced Topics in English: Conflict and Culture in Literature

English

168

Full-Year

Credit: 1

“Why can’t we all just get along?” This is the question Rodney King asked after being brutally beaten by police in 1991, and it has become a commonplace expression, used both sincerely and ironically in situations both weighty and trivial. Reading works set in three centuries and on four continents, we will ask: What causes violence and conflict? Who benefits and who suffers in times of political or personal conflicts? What is the relationship between literature and history? What influences the way individuals confront conflict? Among other works, we will read *The Merchant of Venice*, *Mother Courage*, *Ruined*, *Apeirogon*, and *Interior Chinatown*; we will also watch several films (*American Factory*, *Casablanca*, *Grave of the Fireflies*) as we examine the conflicts that result from religious, economic, and cultural differences. 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.

Advanced Topics in English: Time and Memory in Literature

English

194

Full-Year

Credit: 1

Imagine a world in which you must rely on photographs and tattoos in order to remember something that happened only minutes ago. Travel across countries and continents as you navigate the competing claims of identity under the system of apartheid. Join a rollicking mixture of families and cultures navigating memories of war while seeking prosperity in North London. These are but a few of the characters and narratives that we will explore in this course. This class will consider the ways in which texts construct both a sense of time and a sense of how we remember events over time, using novels, films, short stories, and poetry to travel across centuries, cultures, and genres.

Texts may include: *Memento* by Christopher Nolan; *Coming Through Slaughter* by Michael Ondaatje; *You Can’t Get Lost in Cape Town* by Zoë Wicomb; “The Night Face Up” by Julio Cortázar; “A Rose for Emily” by William Faulkner; and, *White Teeth* by Zadie Smith.

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

World Languages

Department Head: Kathryn Ulmer

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 Chinese, French, Latin, and Spanish. In addition, our faculty believes that the study of people and culture is a critical part of investigating the world, recognizing perspectives, and communicating ideas in another 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 if level one is offered and space permits.

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 or her representative.

Chinese

Chinese I

Chinese

200

Full-Year

Credit: 1

This introductory 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.

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

By the end of Level I, students will have attained the Novice-Mid Performance Level of the ACTFL scale

Chinese II

Chinese

202

Full-Year

Credit: 1

This 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.

Available to students at an emerging Novice-High Proficiency Level on the ACTFL scale

Chinese III

Chinese

203

Full-Year

Credit: 1

In this intermediate-level course, students will continue to develop their interpersonal, presentational, and interpretive communication skills. 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.

Available to students at an Intermediate-Low Proficiency Level on the ACTFL scale

Chinese IV

Chinese

205

Full-Year

Credit: 1

This course provides a context for the continued development of language skills and cultural competency. 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.

Available to students at an Intermediate-Mid Proficiency Level on the ACTFL scale

Chinese V

Chinese

207

Full-Year

Credit: 1

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 previous Chinese classes. Students will develop skills in vocabulary acquisition, oral production, reading, listening comprehension, and writing, in addition to being introduced to basic themes in contemporary Chinese society.

Available to students at an Intermediate-High Proficiency Level on the ACTFL scale

Advanced Topics in Chinese: Conversation and Culture

Chinese

209

Full-Year

Credit: 1

Chinese Conversation and Culture is a full-year course intended for qualified students who are interested in completing Chinese language studies equivalent to a level 200 college course. The objectives are to refine and further develop students' abilities to conduct semi-formal or formal discussions about social-cultural issues, to increase vocabulary by making context-based guesses about the meaning of a new word, to write and present fully developed narratives and structured arguments, and to learn to appreciate Chinese literature. This course is conducted entirely in Chinese.

Available to those who are emerging Advanced-Low Proficiency Level students on the ACTFL scale

French

French 1

French

214

Full-Year

Credit: 1

This course is an introduction to the French language. Students will acquire basic vocabulary and grammar via a communicative approach which enables beginners to express themselves in both oral and written French. Appropriate readings from authentic sources, communicative activities, and cultural presentations will serve to enhance student learning.

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

By the end of Level I, students will be approaching an Intermediate-Low Proficiency Level on the ACTFL scale

French II

French

220

Full-Year

Credit: 1

This course builds upon the skills learned in French I. Students will begin to express themselves in the past and the future, and expand their vocabulary to be able to ask questions to satisfy basic needs. In order to experience the language in context, students are introduced to short authentic written, audio and video material, which will serve as a basis for a variety of performance tasks.

Available to students at an Intermediate-Low Proficiency Level on the ACTFL scale

French III

French

230

Full-Year

Credit: 1

In this intermediate-level course, students will continue to develop their interpersonal, presentational, and interpretive communication skills. Vocabulary and grammatical concepts will be learned through the use of longer authentic print, audio and video material and practiced through a variety of performance tasks. Students will become more comfortable narrating and describing in all major time frames using connected discourse approaching paragraph length. The full-length work written by Antoine Saint-Exupéry, *Le Petit Prince*, is read at this level.

Available to students at an Intermediate-Mid Proficiency Level on the ACTFL scale

French IV

French

241

Full-Year

Credit: 1

French IV is a literature course designed to help students enhance their language skills through reading, composition, and advanced conversation. Themes of vice, virtue, and love are discussed and analyzed in the context of two 17th century texts: Molière's renowned play, *L'École des femmes* and Madame de La Fayette's psychological novel, *La Princesse de Clèves*. There is an emphasis on the development of fluency and accuracy in oral and written communication, and students are expected to engage exclusively in the target language during class discussion. Students in French IV will gain a deeper understanding of French history and culture through the lens of literature, as well as acquire a broad range of vocabulary and study advanced grammar structures.

Available to students at an Intermediate-High Proficiency Level on the ACTFL scale

French V

French

251

Full-Year

Credit: 1

In French V, intermediate language skills will be enhanced via the use 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 at an Advance-Low Proficiency Level on the ACTFL scale

Advanced Topics in French: Revolt and Identity (2020-2021)

Révolte et identité. Des anciennes colonies à la Francophonie: portraits cultures

French

242

Full-Year

Credit: 1

This advanced French language, literature and history course focuses on two major regions of the French colonial empire: the Caribbean and North America. 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 at an Advanced-Low Proficiency Level on the ACTFL scale

Advanced Topics in French: Always the Stranger (2021-22)

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

French

243

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: *Mondo* by J.M.G. LeClézio, *Les Raisins de la galère* by Tahar Ben Jelloun, and *Pierre et Jean* by Guy de Maupassant. 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 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.

Available to students at an Advanced-Low Proficiency Level on the ACTFL scale

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 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.

Text:

- *Ecce Romani Book I*, Lawall, et al.

By the end of Level I, students will reach a range of Intermediate-Low to Intermediate-Mid in communicative proficiency according to ACL-ACTFL proficiency standards

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 at an Intermediate-Low to Intermediate-Mid level in communicative proficiency according to ACL-ACTFL proficiency standards

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 unadapted and authentic stories and fables. Students will learn more about cultural and historical topics as we dive more deeply into authentic Latin texts. For the purpose of enriching the student's English vocabulary, the course will emphasize the etymology and derivations of the Latin vocabulary encountered.

Text:

- *Ecce Romani Book 2*, Lawall, et al.

Available to students at an Intermediate-Mid or emerging Intermediate-High level in communicative proficiency according to ACL-ACTFL proficiency standards

Latin IV

Latin

265

Full-Year

Credit: 1

This advanced Upper School course combines a survey of authentic 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. Students will read and analyze a variety of prose selections from such authors as Caesar and Cicero, and will explore Roman poetry and meter through the works of such poets as Catullus and Ovid.

Available to students at an Intermediate-High or emerging Advanced-Low level in communicative proficiency according to ACL-ACTFL proficiency standards

Advanced Topics: Literature of the Roman Empire (2020-2021)

Latin

266

Full-Year

Credit: 1

This advanced course builds upon the students' survey of literature in Level IV. In this course, students will explore selections from the works of Ovid, Tacitus, Lucan, and others. While students will discover the conventions, literary styles, and characteristics associated with these authors, they will examine a central theme that connects their works: challenging the autocratic regime of the Roman emperors. They will likewise analyze the historical, cultural, and political context of the Julio-Claudian and Flavian periods within which some of history's most influential literature was written. Students will be able to answer the essential question: how much freedom did writers and artists have in imperial Rome?

Available to students at an Advanced-Low or emerging Advanced-Mid level in communicative proficiency according to ACL-ACTFL proficiency standards

Advanced Topics in Latin: Poetry- Vergil (2021-2022)

Latin

245

Full-Year

Credit: 1

Despite the fact that Vergil composed his *Aeneid* over two thousand years ago, his text is one that seems to find resonance in almost any time and place. Aeneas' journey from Troy to Italy and the wars that ensued upon his destined arrival incorporate narratives of unwanted war, refugees in exile, prejudice and bigotry, nature's fearsome power, and political unrest to name a few—issues that seem all too familiar today. This Advanced Topics course, therefore, is designed to provide students with the guidance, confidence and skills necessary to read, discuss, and analyze this seminal work of Latin literature: Vergil's *Aeneid*. Throughout the year, students will develop their abilities to translate as literally and clearly as possible selected passages of Vergil's *Aeneid*. Students will also come to understand the political, historical, literary, and cultural background of the author and text, and will engage in analysis of the content, style, linguistic effects, and rhetorical devices used by the author. Students will ultimately come away with a deeper understanding of this ancient text and its place in our modern world.

Texts:

- Vergil's *Aeneid*, C. Pharr, editor
- *The Aeneid*, S. Ruden, translator

Available to students who meet prerequisites:

- Latin IV or permission of Department Head

Spanish

Spanish I

Spanish

228

Full-Year

Credit: 1

This course is an introduction to the Spanish language. Students will acquire basic vocabulary and grammar via a communicative approach which enables beginners to express themselves in both oral and written French. Appropriate readings from authentic sources, communicative activities, and cultural presentations will serve to enhance student learning.

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

By the end of Level I, students will be approaching an Intermediate-Low Proficiency Level on the ACTFL scale

Spanish II

Spanish

227

Full-Year

Credit: 1

This course builds upon the skills learned in Spanish I. Students will begin to express themselves in the past and the future, and expand their vocabulary to be able to ask questions to satisfy basic needs. In order to experience the language in context, students are introduced to short authentic print, audio and video material, which will serve as a basis for a variety of performance tasks.

Available to students at an Intermediate-Low Proficiency Level on the ACTFL scale

Spanish III

Spanish

238

Full-Year

Credit: 1

In this intermediate-level course, students will continue developing their interpersonal, presentational, and interpretive communication skills. Vocabulary and grammatical concepts will be learned through the use of longer authentic print, audio and video material and practiced through a variety of performance tasks. Students will become more comfortable narrating and describing in all major time frames using connected discourse approaching paragraph length.

Available to students at an Intermediate-Mid Proficiency Level on the ACTFL scale

Spanish IV

Spanish

248

Full-Year

Credit: 1

This course provides a context for the continued development of language skills and cultural competency. Activities and materials relate to contemporary topics in the Hispanic world, current themes, political movements, and historical events in the Spanish-speaking world. This course helps develop skills in the sustained reading of articles and stories and gives a basis for analytical composition writing. In addition, there is an 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 at an Intermediate-High Proficiency Level on the ACTFL scale

Spanish V: Cultures of the Spanish-speaking Caribbean

Spanish

258

Full-Year

Credit: 1

In Spanish V, intermediate language skills will be enhanced through content that specifically focuses on authentic materials that center the experiences of people that identify as Spanish-speaking Afro-descendants in the United States, Latin America and the Caribbean. Students will develop their language skills through individual and group activities that emphasize presentations, debates, discussions, and projects. All grammar content will be taught through the exploration of literature and a variety of historical, cultural and contemporary themes. Participation in the target language is required at all times.

Available to those who are emerging Advanced-Low Proficiency Level students on the ACTFL scale

Advanced Topics in Spanish: Literature and Culture (2020-2021)

Spanish

259

Full-Year

Credit: 1

The Advanced Topics Spanish Literature and Culture course introduces students to texts such as short stories, novels, poetry and essays from across the Spanish-speaking world, with a special emphasis on Latin America. 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 at an Advanced-Low Proficiency Level on the ACTFL scale

Advanced Topics in Spanish Language and Culture (2021-2022)

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 at an Advanced-Low Proficiency Level on the ACTFL scale

History and Social Science

Department Head: Monika Johnston

The History and Social Science Department aims to prepare students to become citizens capable of taking an active and informed role in shaping the society they will inherit. Our rich variety of elective offerings exposes students to the forces that have shaped our nation's institutions as well as those of our increasingly interdependent world. Experienced faculty members take students beyond dates and memorization to insightful analysis and thoughtful interpretations of past and present world events. Instruction encourages students to think critically, through a historical lens, with consideration of multiple situated perspectives in our local communities and around the world. We emphasize writing and research skills as well as an abiding enthusiasm for deliberation, civil dialogue and the continuing study of history.

Packer requires three years of Upper School history for graduation. In the ninth grade, students investigate major themes of global history through the fourteenth century. In the tenth grade, students explore how historians interpret history and construct or challenge historical narratives. In the eleventh and twelfth grade, students fulfill their graduation requirement by choosing from a range of one-semester or full-year electives. At least one of these semesters must be in a course which satisfies the department's global requirement. Additionally, qualified students may pursue Advanced Topics (AT) courses. Requirements for enrollment in AT history courses are a B+ history average and teacher approval. In approving students for AT history course, teachers consider the criteria listed on page 4 of this guide and emphasize the following:

- self-direction and autonomy
- strong conceptual and abstract thinking ability
- an effective and sustained work ethic
- demonstrated proficiency in analytical writing

If students opt not to take a fall history elective in eleventh grade and do not have a final average of B+ or higher from their tenth-grade history course, they may not meet the requirements to take an AT course in their senior year.

Please note that courses which meet the department's third-year global graduation requirement are designated with an asterisk (*).

Grade Nine (Required)

Humanities: Foundations of World History

History

311

Full-Year

Credit: 1

In this course, we will explore the world's major centers of culture from ancient times through the 14th century. We begin with the development of early civilizations and the interaction of nomadic and settled peoples. As the year progresses, we focus on the development of major world religious and philosophical traditions of ancient Israel, India, and China, and the political transition from the early Roman Republic to the Roman Empire. We examine the development of Christianity and Islam as universal religions, the rise of the Holy Roman and Islamic empires, the rise of African states, and the emergence of European feudalism. Finally, we explore increasing global interaction with the Crusades and the development of trade connecting Africa, Europe, and West Asia. Using primary and secondary sources, students learn about cross-cultural interactions, discuss sacred and secular texts, and analyze architectural and artistic artifacts. The course aims to develop skills of historical inquiry that will empower students to make thoughtful decisions about their own roles in today's interdependent and culturally diverse world.

Required Text: Johnson & Johnson, *The Human Drama, Volumes 1 & 2*

Grade Ten (Required)

United States History

History

320

Full-Year

Credit: 1

United States history aims to cover a wide variety of important issues in U.S. History and to analyze them with a critical eye. Topics include different scholarly approaches to history, arguments over the nature of early contact between Europeans and Native Americans, diverse narratives of the colonial and revolutionary periods, controversies surrounding the United States' role on the world stage, and the emergence of social movements. 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.

Fall History Electives: Grades Eleven and Twelve

Cultural Anthropology*

History

345

Fall

Credit: 0.5

Cultural Anthropology is a discipline that focuses on the cultural practices of local communities in the world. It looks at humans as cultural beings and explores various ways that humans express their cultures. Students will be asked to consider thematic similarities among various culture groups; to study different cultural practices without judgment; and to make comparisons with their own cultural practices. Since this course will be an introduction to the discipline for many students, it will begin with an investigation of Anthropology's subfields, methodologies, ethical dilemmas, and historical roots. The remainder of the course will focus on themes such as ethnicity, language, kinship, religion, and ritual, among others, using ethnographic studies as supplemental texts. 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.

Required Text: Kenneth Guest, *Essentials of Cultural Anthropology (2nd edition)*

The Dragon Rises: A History of Modern China*

History

346

Fall

Credit: 0.5

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, political and military superpower, but a little over 50 years ago, China experienced one of the worst famines in human history. China's combination of free-market economics and authoritarian one-party rule seem incompatible to Americans who view democracy and capitalism as bound together, yet China has followed its own path to nation state building. This course begins with the Qing dynasty's failure to check western aggression and the resulting 1911 Revolution that ended 2000 years of dynastic rule. Breaking with the past and finding a new path forward presented challenges. We will learn how warlordism, civil war, and Japanese aggression plagued China for decades following the 1911 Revolution and why the Chinese communists were ultimately able to unite the country and establish the People's Republic of China in 1949. Lastly, we evaluate how the policies implemented by two communist leaders, Mao Zedong and Deng Xiaoping, shaped China's re-emergence as a global superpower.

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

Natural Selections: Literature, History and Politics of the Environment

History

350

Fall

Credit: 0.5

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.

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, Elizabeth Kolbert, W.E.B. DuBois, bell hooks, Carolyn Finney, Barry Lopez, David Mas Masumoto, and Rahawa Haile.

Available to students for history or English credit

The First Age of Globalization*

[Modern World History I]

History

341

Fall

Credit: 0.5

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 during the 18th and 19th centuries. Students will learn how the global exchange system and cross-cultural interactions, such as the Trans-Atlantic Slave Trade and the export of Enlightenment ideas, shaped different regions of the world. We will explore why globalization brought about the rise of strong nation states in Western 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 and why traditional ideas about government, religion and social order were fundamentally altered across the globe.

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

Our Town: History of New York City

History

349

Fall

Credit: 0.5

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.

Required 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

Religion: Conflict and Peace*

History

361

Fall

Credit: 0.5

What do we need to know about the past to understand the role of religion in the world we live in today? How do religions that originated in premodern historical contexts respond to modern and postmodern worldviews? How can we better understand the ways in which religious teachings, beliefs, practices, and identities affect the way people understand and engage in politics and society?

This course will draw upon religious studies and cultural studies frameworks to engage in the non-sectarian exploration of three global religious traditions--Judaism, Christianity, and Islam. We will examine three foundational premises: religions are internally diverse as opposed to uniform; religions are dynamic and change over time as opposed to being ahistorical and static; and religious influences are embedded in all aspects of human experience rather than the idea that religions function in discrete, isolated, and private contexts. Students will study some of the histories of these spiritual traditions, examine religious texts, and explore how religions integrate into the personal, political, social, economic, and cultural aspects of human experience. Through global case studies linked to the themes "gender and sexuality" "climate change" "violence and peace" and "religious minorities"--and examination of issues related to sectarian conflict and religious nationalism-- we will discuss how religions are embedded in culture. We will also analyze the power dynamics that contribute to the emergence of dominant and marginalized groups in different cultural contexts. Throughout the course, we will explore the various ways religions contribute and respond to types of direct, structural and cultural violence and their corresponding types of peace.

Required Text: *Religions of the West Today*, John Esposito, Darrell Fasching, Todd Lewis. (4th Edition)

Scientific and Historical Origins of Race and Gender

History

351

Fall

Credit: 0.5

The course begins with an overview of early human societies to deconstruct notions of difference based in biology and nature. In this study, we look at examples of hunter-gatherer societies and classical civilizations like ancient Greece. Students then study the development of Enlightenment thought in connection to the Scientific Revolution, investigating the scientific, political, and social debates around race and gender that emerge out of both. We continue into the 19th and 20th centuries, looking at the ways scientific theories helped rationalize slavery, gender discrimination, and the Eugenics Movement, along with other examples of inequality. Students will investigate the science of human genetics and the historical contexts out of which scientific studies of race and gender developed. The course will include discussions of the contemporary world, with an examination of current instances of discrimination and inequity, as well as debates around recent scientific studies. In addition to historical texts and writing assignments, students will be responsible for two labs.

Prerequisite: completion of Biology.

Available to students in Grade 12 only; qualifies for either History or Science credit

Spring History Electives: Grades Eleven & Twelve

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. Students start by exploring the concepts of identity and its markers; nationalism; historical memory; human rights; the genesis and definition(s) of the term genocide; and how the word genocide differs in meaning from terminology like crimes against humanity, mass violence, and ethnic cleansing. Within this thematic framework, students examine specific case studies, including the Holocaust and genocides in Armenia, Cambodian, and Rwanda. The course asks students to think critically about the way genocides are remembered and memorialized, by analyzing memoirs and museums as representations of memory. Throughout the course, students use primary and secondary sources to help them comprehend the history of genocide and they will be asked to consider connections between the histories they have studied and the choices they make in their own lives.

Required Text: *Genocide: A Comprehensive Introduction*, 2nd ed., Adam Jones.

History of the Modern Middle East*

History

344

Spring

Credit: 0.5

This course explores the history of the Middle East, beginning with an investigation of the term “Middle East” and a discussion of socio-cultural, economic, and political diversity within the region. We then move into a brief overview of the Gunpowder Empires as historical context, but we focus primarily on the histories of the 19th and 20th centuries. This historical study will include investigations of imperialism and its lasting effects on the region; the rise of nationalism; understandings of modernity; and social and political movements, among other topics. Throughout the semester, students will be asked to make connections between the history studied and contemporary events.

Required Text: *The Modern Middle East: A History*. James Gelvin (4th edition)

History of Warfare*

History

353

Spring

Credit: 0.5

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 *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 ancient times 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.”

Required Texts: *100 Decisive Battles from Ancient Times to the Present*, Paul K. Davis; *Online textbook*

International Relations*

History

348

Spring

Credit: 0.5

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 19th 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 will culminate in an (in-class) Model United Nations (MUN) simulation for which we will write policy statements and resolutions, lobby for signatories, deliver speeches, and engage in formal debate.

Native American: Identity, Culture, and Power in North America 1492-Present

[Native American Hist]

History

363

Spring

Credit: 0.5

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 Tȋatȋhȋnka 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

A Cultural History of American Popular Music

History

355

Spring

Credit: 0.5

American popular music is an art form that has helped to reflect and define social and cultural change for each successive generation. It has played a pivotal role in shaping identity, gender and race in America. In this course, we will listen closely to popular music genres from the late nineteenth century to the present while at the same time looking at the historical context in which the music emerged and the people and institutions that produced it. We will approach song recordings as primary sources and learn how to analyze music as “text.” No prior musical training is required but students enrolled in this course will develop a basic understanding of musical ideas such as beat, tempo, rhythm, and form so they can analyze the different genres of music and recognize how music has drawn from preexisting musical traditions. Upon completion of this course, students will have learned why popular music was an essential ingredient in American social and cultural history.

Required Text: Larry Starr and Christopher Waterman, *American Popular Music: From Minstrelsy to MP3 Fifth Edition*, Oxford University Press, 2018.

Women and Human Rights*

History

390

Spring

Credit: 0.5

Are women’s rights genuinely human rights—not just in theory but in practice? What does exploring women’s lives through the lenses of human rights, gender, and intersectionality make visible? How do gendered concepts and structures shape identity and norms, creating hierarchies and power dynamics that affect women’s social, economic, political, and personal well-being?

The course will explore select contemporary issues to examine the interconnections between women, culture, and human rights. We will explore theoretical frameworks and mini case studies to learn about human rights issues women face and how they are agents of change and advocates for their empowerment. More specifically, we will examine: women’s low status and power, forms of discrimination and violence against women and girls, and the security of reproductive rights and health. Other topics include an overview of human rights philosophy and the international human rights framework. We will focus on the global significance of CEDAW (The Convention on the Elimination of Discrimination Against Women) and how groups use it to articulate, monitor, and protect women’s human rights. Along with reading and discussing analytical writing by scholars, we will use literature, videos, and contemporary news articles to understand how these issues express in particular global situations.

Text: *The Women’s Atlas*, Joni Seager, 2018 (Fifth edition)

Full-Year History Elective: Grades Eleven & Twelve

Documenting Change: Exploring Social Issues through Filmmaking

History

360

Full-Year

Credit: 1

Who is taking meaningful action to counter climate change? What is being done to combat poverty? How are activists fighting to improve the quality of education available to young people? This course, a year-long, interdisciplinary offering, will provide students with the opportunity to address questions such as these, focused on an important local, national, or international social issue, and to produce short (8-10 minute) documentary films on their topics. Students will carry out historical and contemporary policy research, write issue analyses, interview subjects, and construct a cohesive narrative in a documentary film. Additionally, during the first semester, students will work collaboratively to make a short documentary. While individual students will direct their own films in the second semester, collaboration will be central to the course and class members will work together as crew, filming interviews together, partnering in the editing process, and providing peers with constructive feedback. Likewise, this course will ask students to step outside of the walls of Packer, to engage with the wider world, to offer an informed perspective on an important current issue.

Note: Students choosing to focus on a global issue, will receive a “global history” credit.

Advanced Topics in History: Grades Eleven & Twelve

Qualified students may pursue Advanced Topics (AT) courses. Requirements for enrollment in AT history courses are a B+ history average and teacher approval. In approving students for AT history course, teachers consider the criteria listed on page 4 of this guide and emphasize the following:

- self-direction and autonomy
- strong conceptual and abstract thinking ability
- an effective and sustained work ethic
- strong argumentative writing proficiency

If students opt not to take a fall history elective in eleventh grade and do not have a final average of B+ or higher from their tenth-grade history course, they may not meet the requirements to take an AT course in their senior year.

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 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.

Required Texts: *Challenge of Democracy 13th Edition*, Janda, Berry and Goldman; *Lanahan Readings in the American Polity, 6th Edition*, Serow and Ladd, eds.

Available to students who meet prerequisites:

A minimum of B+ average is required. Additionally, 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. (See page 4 of this guide for a detailed list of approval criteria.)

Advanced Topics in European History*

History

382

Full-Year

Credit: 1

Advanced Topics in European History traces the evolution of Western society from the eighteenth century to the twenty-first century. In the first semester, students reconstruct Europe's past from the Enlightenment 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 research into 18th century society and culture in a medium to be decided in consultation with the teacher. 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 the Spanish Civil War or World War II will serve as the centerpiece of the second semester. Each student will research photographs, letters, unpublished memoirs and material relics from the war years.

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

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

Available to students who meet prerequisites:

A minimum of B+ average is required. Additionally, 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. (See page 4 of this guide for a detailed list of approval criteria.)

Advanced Topics in Making History: Conducting Scholarly Research in the Archives
[AT Archival Research]

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. Past topics have included: "The Price of Voicelessness: Student Editorials at a Private High School"; "Understanding Brown: Speaking Out on Racism in New York During the Civil Rights Era"; and, "He Was Always Told 'No': The Life of Jeffrey Dickeman, a Transgender Alum '48." 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 in May at the Brooklyn Historical Society. The class will meet five times a cycle, including one meeting every seven days at the Brooklyn Historical Society during the long block.

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

Available to students who meet prerequisites:

A minimum of B+ average is required. Additionally, 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. (See page 4 of this guide for a detailed list of approval criteria.)

Advanced Topics: Trans-Atlantic Slavery: Literature, History, Narrative, Memory•

History

347

Full-Year

Credit: 1

This course takes as its central topic the rise of Atlantic African capitalist slavery, its life in narratives, and its continuing life in our contemporary memory. By examining the links between the enslaved past and present, we will investigate the ways in which the “memory” of slavery still weighs upon the present to shape our lives.

The course is split into two parts. Part I, “Slavery and the Construction of the Atlantic World,” begins with the African slave trade that brought bodies into servitude, and continues through the middle passage which transmuted those bodies into legal property and ends with new world slavery which imparted racial dominance and resistance in the era of European empire. Part II: “Slavery and the Construction of the United States,” follows the rise and fall of African-American slavery which provided the legal foundations for white domination and the philosophical foundation for “freedom” in the United States.

We will read historical sources from the time of slavery narrating the lived experience of the enslaved and the slaver, contemporary historical scholarship uncovering themes and patterns in the slave past, and contemporary novels fictionalizing the lives of those bound to the institution of slavery.

Investigating how free and enslaved peoples narrated and lived slavery in the past, as well as how white and black Americans remember and live slavery today, our hope is to acknowledge the complex and undying claims the past has on the present.

Required 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 who meet prerequisites:

A minimum of B+ average is required. Additionally, 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. (See page 4 of this guide for a detailed list of approval criteria.)

Mathematics

Department Head: Ian Rumsey

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 the student:

- Earns an A (93% and above) in the standard course
- Consistently demonstrates the attributes listed in AT and Accelerated Courses Criteria found on page 4 of this curriculum guide
- Demonstrates mastery of prerequisite content that may not have been covered in the standard section
- Obtains a recommendation from the department head and from the student's current 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

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 and trigonometry; 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 AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B or higher in 8th Grade Algebra I Advanced

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 functions, function transformations, exponential functions, logarithms and logarithmic functions, quadratic functions, and advanced equation-solving. Additional strands in statistical literacy and numeracy are explored topically. Students use the graphing calculator and Desmos 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 as time permits. Students use the graphing calculator, Desmos and Geogebra extensively throughout the course.

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B or higher in Geometry A (Math 420)

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 and transformations of trigonometric functions, combinatorics, matrices, polynomial functions, rational functions, and sequences and series.

Available to students who meet prerequisites:

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

Precalculus Advanced

Math

448

Full-Year

Credit: 1

This is an in-depth 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 AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B or higher in Algebra II Advanced (Math 430)

Math Applications I

Math

490

Fall

Credit: 0.5

This math course covers several discrete math topics, including Polya's problem solving techniques, number theory, the history and development of number systems, and voting and apportionment methods. Throughout the course students hone their problem solving skills; engage in hands-on lessons, and complete several applied mathematics projects.

Students may take Math Applications I without taking Math Applications II, but we recommend registering for both.

Available to students who meet prerequisites:

- A grade of C- or higher in Algebra II

Math Applications II

Math

491

Spring

Credit: 0.5

This math course covers several discrete math topics, set theory, logic, network theory, three-dimensional geometry including a study of Platonic solids, and applications of triangle trigonometry. 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
- Completion of Math Applications I, or permission of Department Head.

Calculus

Math

480

Full-Year

Credit: 1

This is a standard calculus course, covering functions, limits, derivatives, applications of the derivative, and an introduction to integration. Students focus on conceptual understanding as well as applications of those ideas.

Available to students who meet prerequisites:

- 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

Advanced Topics in Mathematics

Advanced Topics in 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 AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of A- or higher in Algebra II A (Math 430) or a grade of B- or higher in Precalculus Advanced (Math 448); students earning a grade of A or higher in Precalculus (Math 445) may be considered with a teacher recommendation.

Advanced Topics in Calculus I

Math

481

Full-Year

Credit: 1

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.

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B or higher in Precalculus Advanced

Advanced Topics in Calculus I & II

Math

483

Full-Year

Credit: 1

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; the calculus of parametric and 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.

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of A- or higher in Precalculus Advanced

Advanced Topics in Math: Symmetry & Transformation

Math

496

Full-Year

Credit: 1

Students will explore topics in college-level mathematics through problem-solving and proof writing. The class will begin with an overview of proof techniques and mathematical habits of mind before launching into an inquiry-based study of graph theory. Next, students will investigate topics in linear algebra, including the theory of matrices, linear transformations, and vector spaces. The course will culminate in a survey of abstract algebra, including groups, rings, and fields. Applications of group theory will be emphasized. As time permits, additional topics may include advanced combinatorics and game theory.

Available to students who meet prerequisites:

- Superior demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- Completion of or current enrollment in AT Calculus I & II

Science

Department Head: Kofi Donnelly

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 Independent 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 a 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

Evidence is at the core of all science. Doing science means performing experiments that ask specific questions about nature, and the pieces of evidence we collect during these experiments are nature's answers to these questions. Making sense of the answers we get involves interpreting and organizing what we've seen in order to make predictions about novel situations.

Physics is great for practicing how to do science, and in this course students will learn physics and to think like a scientist. Students have been doing physics experiments their whole lives by simply observing the world around them and figuring out how things work. The goal in this class is to formalize the rules of nature from the ground up with a careful, scientific approach. Students will engage in a lot of hands-on work, graph interpretation, group discussion, and even some algebra to develop better ways of making predictions; but looking closely at evidence will always be at the center of their work.

Accelerated Physics

Science

505

Full-Year

Credit: 1

Evidence is at the core of all science. Doing science means performing experiments that ask specific questions about nature, and the pieces of evidence we collect during these experiments are nature's answers to these questions. Making sense of the answers we get involves interpreting and organizing what we've seen using graphical and algebraic methods. The goal is to explain phenomena and make predictions about novel situations. Looking closely at data will always be at the center of our work.

In this rigorous course students will formalize the rules of nature from the ground up using the language of mathematics. Students will learn to use a careful, scientific approach including hands-on work, group discussion, and mathematical modeling to develop better ways of making predictions.

Available to students who meet prerequisites:

- An A- average in 8th grade science and math at Packer and approval of 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, a skill survey sent to their 8th grade science teachers and their 9th grade math placement.

Chemistry

Science

510

Full-Year

Credit: 1

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 and bonding. **This course is open to all 10th grade students, regardless of their math level or previous performance in 9th grade physics.**

Available to students who meet prerequisites:

- 9th Grade Physics

Accelerated Chemistry

Science

512

Full-Year

Credit: 1

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.

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

Available to students who meet prerequisites:

- A B+ average in Accelerated Physics or an A average in Physics and equivalent math grades
- Approval of the relevant science teacher

Biology

Science

520

Full-Year

Credit: 1

This introductory course presents a study of the fundamental processes of living organisms, with an emphasis on the role of evolution in the development of those processes. Topics addressed include evolution, classical and molecular genetics, protein synthesis, biochemistry, structure and function of cells, cellular respiration, and photosynthesis. Students will explore biology by analyzing data, asking questions, and discussing ideas with colleagues. Through these facilitated discussions and related laboratory explorations, students will arrive at their own answers while building critical thinking and problem solving skills.

Available to students who meet prerequisites:

- Completion of Physics and Chemistry

Accelerated Biology

Science

521

Full-Year

Credit: 1

This rigorous year-long course in Biology presents an in-depth study of the fundamental processes of living organisms, with an emphasis on the role of evolution in the development of those processes. Topics addressed include evolution, classical and molecular genetics, protein synthesis, biochemistry, structure and function of cells, cellular respiration, and photosynthesis. Students will explore biology by analyzing data, asking questions, and discussing ideas with colleagues. Through these facilitated discussions and related laboratory explorations, students will arrive at their own answers while building critical thinking and problem solving skills. Students will hone their graphing skills and begin to analyze their work statistically to incorporate mathematical support for their ideas.

Available to students who meet prerequisites:

- A grade of B+ in Accelerated Chemistry or A in Chemistry and equivalent math grades
- Approval of the relevant science teacher

Fall Science Electives: Grades Eleven & Twelve

Scientific and Historical Origins of Race and Gender

Science

540

Fall

Credit: 0.5

The course will begin with an overview of early human societies to debunk notions of difference based in biology and nature. In this study, we will look at examples of hunter-gatherer societies, classical civilizations like ancient Greece, and Europe in the Middle Ages. Students will then study the development of Enlightenment thought in connection to the Scientific Revolution, investigating the scientific, political, and social debates around race and gender that emerge out of both. We will continue into the 19th and 20th centuries, looking at the ways scientific theories helped rationalize slavery, gender discrimination, and the Eugenics Movement. Students will investigate the science used to support oppression, looking at the realities of human genetics and the historical contexts out of which studies of race and gender developed. 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 include the contemporary US and Europe, with an examination of current instances of discrimination and debates around recent scientific studies.

Prerequisite: Completion of Biology

Available to students in Grade 12; qualifies for either History or Science credit

Nuclear Physics

Science

555

Fall

Credit: 0.5

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+ in Chemistry or Accelerated Chemistry
- Completion or concurrent registration in Biology

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.

Required 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+ in Accelerated Chemistry or an A in Chemistry
- Approval of the relevant science teacher

Environmental Science

Science

522

Fall

Credit: 0.5

This one-semester course is designed to introduce students to the science of the most pressing environmental questions of today such as climate change, biodiversity loss, genetically modified organisms, factory farming, desertification, hydrofracking, and to draw connections between these issues and economic, political, social, and historical questions. 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. A multidisciplinary approach will be used so students can make sense of the discrepancy between our deep scientific understanding of these issues and the lack of meaningful action by the leaders of the world. A discussion of the role of colonialism and imperialism in paving the way for global ecological degradation will provide the historical context for our current global ecological crisis. The course will also seek to examine environmental racism, how certain groups in society already feel the impacts of environmental problems more severely and earlier than others. The main objective of this course is to furnish students with the tools to understand climate change and to play a role in effecting positive social and ecological change.

Available to students who meet prerequisites:

- Completion of Physics and Chemistry

Spring Science Electives

Astronomy

Science

554

Spring

Credit: 0.5

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.

Required 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

Anatomy and Physiology

Science

553

Spring

Credit: 0.5

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 aneurysm 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

Environmental Science

Science

522

Spring

Credit: 0.5

This one-semester course is designed to introduce students to the science of the most pressing environmental questions of today such as climate change, biodiversity loss, genetically modified organisms, factory farming, desertification, hydrofracking, and to draw connections between these issues and economic, political, social, and historical questions. 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. A multidisciplinary approach will be used so students can make sense of the discrepancy between our deep scientific understanding of these issues and the lack of meaningful action by the leaders of the world. A discussion of the role of colonialism and imperialism in paving the way for global ecological degradation will provide the historical context for our current global ecological crisis. The course will also seek to examine environmental racism, how certain groups in society already feel the impacts of environmental problems more severely and earlier than others. The main objective of this course is to furnish students with the tools to understand climate change and to play a role in effecting positive social and ecological change.

Available to students who meet prerequisites:

- Completion of Physics and Chemistry

Advanced Experimental Chemistry: From the Page to the Plant

Science

542

Spring

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.

Required 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+ in Accelerated Chemistry or an A in Chemistry
- Approval of the relevant science teacher

Advanced Topics in Science

Advanced Topics in Biology

Science

582

Full-Year

Credit: 1

This course is designed so that students engage in college-level biology coursework. 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 build on foundations learned the previous year in 11th grade Biology but will delve deeper into the investigation of evolution, molecular genetics and information transfer, communication 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.

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B+ in Accelerated Chemistry or an A in Chemistry
- A grade of B+ in Accelerated Biology or an A in Biology
- Approval of the relevant science teacher

Advanced Topics in Inorganic Chemistry

Science

580

Full-Year

Credit: 1

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 Inorganic 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.

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

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B+ in Accelerated Chemistry, A in Chemistry or B+ in Advanced Experimental Chemistry
- Current enrollment or completion in Algebra II while maintaining a B average in Math
- Approval of the relevant science teacher

Advanced Topics in Organic Chemistry

Science

587

Full-Year

Credit: 1

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 usable products? How do we decide if they are “safe?” In this 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.

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

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- A grade of B+ in Accelerated Chemistry or an A in Chemistry
- Completion or concurrent registration in Biology
- Approval of the relevant science teacher

Advanced Topics in Physics

Science

586

Full-Year

Credit: 1

Everything in the universe can be understood in terms of particles, waves or fields. In this college-level physics course, students will explore these three manifestations of reality by building upon the foundations of physics developed in 9th grade. Topics will include: force and motion in three dimensions, optics, waves, harmonic motion, circular motion and electromagnetic theory. Numerous quantitative experiments and lab practica are conducted throughout the year to show application of concepts and expand understanding. Students will also learn fundamentals of coding in order to produce three dimensional simulations of physical phenomena. Strong emphasis is placed on solving a variety of challenging problems, as well as continuing to develop a deep understanding of physics concepts.

Available to students who meet prerequisites:

- Consistent demonstration of AT and Accelerated Course Criteria for students found on page 4 of this document
- Completion of Physics or Accelerated Physics
- A grade of B+ in Accelerated Chemistry or an A in Chemistry and equivalent math grades
- Completion or concurrent enrollment in Precalculus
- Approval of the relevant science teacher

Independent Science Research

Introduction to Independent Science Research

Science

506

Full-Year

Credit: 1

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 organized, 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 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.

Students must submit an application and be accepted to the program.

Intermediate Independent Science Research

Science

507

Full-Year

Credit: 1

The intermediate science research course is open to those students who have received teacher approval, 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 three hours 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
- Teacher approval
- Completion of a minimum of 4 weeks of summer research

Advanced Independent Science Research

Science

508

Full-Year

Credit: 1

The advanced science research course is open to those students who have received teacher approval, 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 are expected to go to their lab placement at least three hours a week throughout the school year. Students will enter at least two science competitions 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 and Intermediate Independent Science Research
- Teacher approval
- Completion of a minimum of 4 weeks of summer research

ACADEMIC ELECTIVES

Computer Science

Department Head: Greg Benedis-Grab

Packer's computer science program is designed to meet the needs of all our students in this important and growing academic field. The program offers a variety of courses that emphasize problem solving, abstract thinking, design, and creativity. The required ninth grade course is an introduction to the field of computer science and the subsequent offerings at Packer. Students are introduced to computational thinking, computer programming, web design, and physical computing. Later courses allow students to develop and grow in various areas of the field.

Ninth Grade Computer Science

Computer Science 820 Full-Year Credit: 0.5

In this course students will explore a variety of topics within Computer Science. We will start with a unit on programming using the p5 Javascript library with the goal of creating a basic Pong-style game. We will then focus on web development and create simple websites using HTML, CSS, and Javascript. Finally, we will explore physical computing using simple circuits and microcontrollers. Students will work to better understand the capabilities and constraints of software systems

Required for students in Grade 9

9th Grade Health will be taken during 8 sessions of this course

This course is offered 3 times per rotation for the entire year countering Phy Ed

Creative Computing in JavaScript

Computer Science 870 Fall Credit: 0.5

In this course students will expand on the programming skills learned in 9th Grade CS and work to develop good programming habits. Students will explore what they are able to create using the fundamental tools of programming. From generative art, to games, to solving puzzles, students will write programs to solve both real world problems and personal annoyances. Students' work will focus on planning and debugging code to ensure efficiency and stability. They will solidify their understanding fundamental concepts such as data types, variables, conditionals, loops, and objects but also explore web APIs, embedded systems, artificial intelligence and more.

Available to students in Grades 10 through 12

Physical Computing

Computer Science 815 Fall Credit: 0.5

Computers have become interwoven in all aspects of our lives. In addition to laptops and smartphones, we now have fitness trackers, intelligent thermostats, web connected door locks, and self driving cars. In this class students will investigate how computers interact with the physical world and how humans interact with computers. Students will write programs that function beyond the limits of a keyboard, mouse, and screen. We will begin by learning basic electronics before moving into an exploration of motors, lights, speakers and a wide range of sensors. We will finish the course by considering real world problems and then designing and building devices to improve the world

Available to students in Grades 10 through 12

Web Engineering

Computer Science 841 Spring Credit: 0.5

In this class students will explore the various technologies that make the internet work. They'll start by creating simple web pages with HTML and will eventually add in CSS and Javascript. They'll learn what a server is, and how they can create one to host a website of their own. They'll learn about the technologies that form the backbone of the web, such as DNS, HTTP, and databases, along with what differentiates the web from the internet as a whole. Students will leave with the ability to better understand one of the most ubiquitous fields in computer science.

Available to students in Grades 10 through 12

Advanced Topics in Computer Science

Computer Science 850 Full-Year Credit: 1

In this course students will further develop the fundamental skills of computer science such as variables, primitive data types, conditionals, and loops. During this review they will apply them to more advanced problems and applications. We'll spend the majority of the year discussing advanced topics in computer science that transcend any one programming language. We'll cover object oriented programming, including objects, classes, encapsulation, inheritance, and polymorphism. We'll also address data structures and ways to measure their efficiency. Finally we'll explore algorithms and learn when to use them.

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 a Computer Science Elective or A in Advanced Precalculus (Math 448)

Journalism*

The Journalism program is interdisciplinary in that it bridges the mediums of print, web, and video. Students begin the class with instruction and practice in the foundations of journalism, such as finding and developing stories, interviewing, filming, writing, editing, producing, and working under deadline. The semester then progresses to reflect a true newsroom environment, as students assign and develop their own stories relevant and pressing to the Packer community.

This yearlong course ranges from introductory to advanced levels, allowing students the opportunity to advance from Journalism I to Journalism III, as they continue to build and hone their skills in reporting and expand their personal portfolios. All students enrolled in Journalism I will receive Academic Elective credit. Students in Journalism II and III will have the option to earn Academic Elective or Arts credit with departmental approval. Additionally, students in Journalism II and III will be encouraged to apply for editorial positions on the *Prism*, such as section, web, content, and photo editors. All coursework contributes to the *Prism* student newspaper, as well as the *Prism's* online publication. Students are assessed on class productivity, collaboration, initiative, independent work, meeting deadlines, and producing polished final projects.

Admission to Journalism I is based on an application and interview process.

***Journalism courses do NOT meet English graduation requirements.**

Journalism I

Academic Elective

115

Full-Year

Credit: 1.0

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 produce news and feature pieces. Students will have the opportunity to practice using video equipment and print layout software, such as InDesign. Students will also receive instruction in grammar and style for newspaper writing.

Students will share space, time, and assignments with Journalism II and III students engaged in the publication of *The Prism*.

Available to Grades 10, 11 and 12

Qualifies for Academic Elective credit

Journalism II

Academic Elective	172	Full-Year	Credit:1
Arts	636		

Students in Journalism II will apply knowledge and hone reporting and writing skills learned in Journalism I as they produce the monthly student newspaper, mentor Introduction to Journalism students, and expand their personal portfolios. In addition, they will master the practical aspects of producing print, web, and video content under deadline. Students in Journalism II will be given the opportunity to apply for editorial positions.

Available to students in Grades 11 and 12 who meet the prerequisites:

- Journalism I
- B- or above average in Journalism I

Qualifies for either Arts or Academic Elective credit

Journalism III

Academic Elective	173	Full-Year	Credit: 1
Arts	637		

This course is for budding videographers, journalists, and documentarians who have already taken Journalism I and Journalism II. Students will continue to learn the fundamentals of print, web, and video journalism to create in-depth reports on current issues of interest and concern to the Packer community. Stories will be published routinely in *The Prism* newspaper, as well as on *The Prism* website. Students in Journalism III will continue to serve as leaders and mentors in the class, and they will be given the opportunity to apply for editorial positions.

Available to students in Grade 12 who meet the prerequisites:

- Journalism I and Journalism II
- B- or above average in Journalism II

Qualifies for either Arts or Academic Elective credit

Other Academic Electives

Design Thinking

Acad Elective

901

Spring

Credit: 0.5

Design Thinking is all about solving problems using creative approaches. It pushes students to be innovative, think critically and empathize with the user, all with the aim of creating meaningful and powerful change. Design thinking combines art and science, social justice and engineering, storytelling and statistics, all into one project-based, skills-oriented class.

Students will learn the design thinking process through a variety of projects, design sprints, field trips and guest speakers. It's a course with creativity and problem-solving at its core and will provide students with many hands-on opportunities to design both products and systems, with the course culminating in a student chosen design project with the aim of having their designs incorporated into their chosen domain.

Available to students in Grades 10 through 12

Entrepreneurship

Acad Elective

902

Fall

Credit: 0.5

Entrepreneurship is more than finding a way to make money - it's about being creative and adaptable, being a leader and a visionary, and making an impact beyond just profit margins. This class will challenge students to think about what it means to be an entrepreneur and the mindset associated with success and failure. Students will be using the design thinking process to guide them in defining problems and identifying customers, as well as generating ideas. They will create business plans, develop marketing strategies, and pitch their ideas all while learning the rhythms and needs of start-up life. Students will also think about what it means for businesses to be successful and look at different metrics to measure success beyond just revenue.

The course will be largely project-based with a variety of field trips, presentations and guest speakers too. The course will culminate in a 'start-up accelerator' style project that allows students to develop and pitch their own business idea.

Available to students in Grades 11 and 12

Life's Big Questions: On Origin, Identity, and Purpose

[Philosophy]

Acad Elective

684

Spring

Credit: 0.5

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

1. *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)

Qualifies for Academic Elective credit only

Shakespeare & Co. Part 1: Renaissance Drama - Page to Stage Tragedy, Comedy, History

Arts

629

Fall

Credit: 0.5

'All the world's a stage.' 'To be or not to be.' 'The course of true love never did run smooth.' We can all quote some Shakespeare. Why? Why is his work the enduring jewel in the crown of Renaissance Drama? By exploring his plays both as literary works and as texts to be performed, students on this course will come to understand in detail how through precisely crafted poetry (and, on occasion, prose), through complex imagery, beautifully defined character and dramatic devices that lead directly back to Greek Theatre, some of theatre's greatest stories came to be told. Historical context plays a part too. Why did Shakespeare write *Richard II* when he did? What cultural insecurity lies behind *Much Ado About Nothing*? Further, students will compare the ideas in the primary texts under review with ideas from across Shakespeare's plays and beyond. A complete play by one of Shakespeare's contemporaries is also studied on this course. Literary analysis and the development of performance skills combine to give a profound experience of Renaissance Drama - on the page and on the stage.

Texts: *Richard II*, *Much Ado About Nothing* (Shakespeare), *Edward II* (Marlowe)

Available to students in Grades 11 and 12; qualifies for either Arts or Academic Elective credit

**Shakespeare & Co. Part 2: Renaissance Drama - Page to Stage
Tragedy, History, Comedy**

Arts

630

Spring

Credit: 0.5

'All the world's a stage.' 'To be or not to be.' 'The course of true love never did run smooth.' We can all quote some Shakespeare. Why? Why is his work the enduring jewel in the crown of Renaissance Drama.? By exploring his plays both as literary works and as texts to be performed, students on this course will come to understand in detail how through precisely crafted poetry (and, on occasion, prose), through complex imagery, beautifully defined character and dramatic devices that lead directly back to Greek Theatre, some of theatre's greatest stories came to be told. Historical context plays a part too. Why did Shakespeare choose that point in his career to tell the story of a Danish Prince called Hamlet How did he adapt his primary historical sources to produce the stunning sequence of the two parts of *Henry IV*? And why? Further, students will compare the ideas in the primary texts under review with ideas from across Shakespeare's plays and beyond. A complete play by one of Shakespeare's contemporaries is also studied on this course. Literary analysis and the development of performance skills combine to give a profound experience of Renaissance Drama - on the page and on the stage.

Texts: *Hamlet*, *Henry IV i & ii* (Shakespeare), *Volpone* (Ben Jonson)

**Available to students in Grades 11 and 12; qualifies for either Arts or Academic
Elective credit**

Fine and Performing Arts

Department Head: Ali Boag

The mission of the Arts Department is to offer a spectrum 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, Fall Play, and Spring Musical.

Packer Dance Company (Meets 5 times per rotation)

Arts (for 9-12)	645	Fall/Spring	Credit: 0.5
PE (for 10-12)	745		

Packer Dance Company is a performance ensemble that helps dancers develop a professional approach to rehearsals and performances. Students are exposed to a variety of movement, repertoire, and music as a way to learn choreography and gain experience as part of a dance company. Dancers will develop technique, artistry, and performance skills, and will have the opportunity to perform original works created by the instructor and outside guest artists in the Upper School Dance Concert and other showcases. Packer Dance Company can be taken by semester or as a full-year of study (recommended). Some dance experience is recommended but not necessary.

Available to students in Grade 9 through 12; qualifies for either Arts or PE credit

Dance and Choreography

Arts	659	Full-Year	Credit: 1
PE	759		

This course is designed to help 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 their own ensemble of dancers. Attendance at one performance of a professional dance company and two individual conferences with the teacher are also required.

Available to students who meet prerequisites::

- One semester of either Dance Technique or Packer Dance Company or by permission of the instructor

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

AT Choreography

Arts	640	Full-Year	Credit: 1
PE	720		

This course provides the opportunity for the in-depth of study of choreography, improvisation, performances skills, and personal creative process through advanced compositional assignments and performances. A major focus of the class is the required participation as a choreographer in the Dance Concert and other showcases, which requires a good deal of time in required after-school rehearsals. While learning the craft of composition or “dance-making” 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 to students who meet prerequisites:

- Arts 625 (Dance and Choreography)
- Recommendation of the instructor

Available to students in Grades 11 and 12; qualifies for either Arts or PE credit

Actors' Studio

Arts

627

Fall/Spring

Credit: 0.5

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 speeches, through improvisation, devising and scripting their own material.

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 'toolbox' of practical solutions to the exciting task of making successful performance choices. The texts used in this class come from a very wide range of sources and include monologues and scenes written in a variety of theatrical genres. Students will strive towards a working knowledge of Theatre History – from Ancient Greek Theatre, through Shakespeare and the Renaissance, Nineteenth Century 'realism', and the great works of the 20th Century to contemporary Drama from across the world. Texts are explored both analytically and practically. Each student is expected to engage with the Theatrical life of Packer and will have opportunities for public performance during the course. The Spring semester leads to a studio show. Through exposure to differing theatre techniques developed by a variety of practitioners students will gather ways of working that support their growing sense of themselves as performers.

Available to students in Grades 9 through 12.

Computers and Technology as Performance Art

Arts

686

Spring

Credit: 0.5

How are computers, technology, and networking capabilities used to develop a performance piece of theater, dance, or music? How do technicians, designers, and artists use the left side of the brain to execute the needs of the right? Are computers and technology always the answer? This course will explore the use of technology and the use of computers in the modern world of live performance, in particular theatre arts. Students will have the opportunity to develop and hone their artistic and technological skills to develop themselves as scenic, lighting, audio, and projection technicians and designers.

Students will actively engage in subject areas including computer aided design (CAD) software to produce scenic and lighting drafting elements, audio show files for live performance, projection design for video and still imagery, as well as graphic design projects using Adobe Photoshop and After Effects. Students will also actively engage in challenging scenic and prop projects that integrate multiple technology disciplines into their final creative project.

Available to students in Grades 10 through 12.

**Shakespeare & Co. Part 1 : Renaissance Drama - Page to Stage
Tragedy, Comedy, History**

Arts

629

Fall

Credit: 0.5

'All the world's a stage.' 'To be or not to be.' 'The course of true love never did run smooth.' We can all quote some Shakespeare. Why? Why is his work the enduring jewel in the crown of Renaissance Drama? How has his voice become global? By exploring his plays both as literary works and as texts to be performed, students on this course will come to understand in detail how through precisely crafted poetry (and, on occasion, prose), through complex imagery, beautifully defined character and dramatic devices that lead directly back to Greek Theatre, some of theatre's greatest stories came to be told. Historical context plays a part too. Why did Shakespeare write *Richard II*, say, when he did? What cultural insecurity lies behind a comedy such as *Much Ado About Nothing*? Further, students will compare the ideas in the primary texts under review with ideas from across Shakespeare's plays and beyond. A complete play by one of Shakespeare's contemporaries is also studied on this course. Literary analysis and the development of performance skills combine to give a profound experience of Renaissance Drama - on the page and on the stage.

Texts:

- A comedy, a tragedy, and a history or romance/'problem' play, together with a text from one of Shakespeare's contemporaries.

Available to students in Grades 11 and 12; qualifies for either Arts or Academic credit

**Shakespeare & Co. Part 2: Renaissance Drama - Page to Stage
Tragedy, History, Comedy**

Arts

630

Spring

Credit: 0.5

'All the world's a stage.' 'To be or not to be.' 'The course of true love never did run smooth.' We can all quote some Shakespeare. Why? Why is his work the enduring jewel in the crown of Renaissance Drama? How has his voice become global? By exploring his plays both as literary works and as texts to be performed, students on this course will come to understand in detail how through precisely crafted poetry (and, on occasion, prose), through complex imagery, beautifully defined character and dramatic devices that lead directly back to Greek Theatre, some of theatre's greatest stories came to be told. Historical context plays a part too. Why did Shakespeare choose that point in his career to tell the story of a Danish Prince called Hamlet How did he adapt his primary historical sources to produce the stunning sequence of the two parts of *Henry IV*? And why? Further, students will compare the ideas in the primary texts under review with ideas from across Shakespeare's plays and beyond. A complete play by one of Shakespeare's contemporaries is also studied on this course. Literary analysis and the development of performance skills combine to give a profound experience of Renaissance Drama - on the page and on the stage.

Texts:

- A comedy, a tragedy, and a history or romance/'problem' play, together with a text from one of Shakespeare's contemporaries.

Available to students in Grades 11 and 12; qualifies for either Arts or Academic credit

Packer Chorus (meets 4.5 times per cycle)

Arts

650

Full-Year

Credit: 1

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 strong and independent singers who learn to have a healthy, beautiful voice that blends seamlessly into the ensemble.

Available to students in Grades 9 through 12

Select Choir (meets 5 times per cycle, plus Thursday after school)

Arts

651

Full-Year

Credit: 1

Select Choir is an advanced musical ensemble that sings all kinds of music, from classical to jazz, in English and World Languages. 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.

Students in Select Choir are encouraged to participate in Concert and Community service trips when offered.

Available to students who meet prerequisites:

- Qualified students on Grades 9 through 12 **by audition**
- Permission of the instructor

Orchestra

Arts

653

Full-Year

Credit: 1

The Upper School Orchestra is the core of the Upper School Strings 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

Fall/Spring

Credit: 0.5

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. This is a semester long course, registration shall serve as acknowledgment.

Students in Chamber Strings are encouraged to participate in Concert and Community service trips when offered.

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

Jazz Band (Meets 2.5 times per cycle)

Arts

658

Full-Year

Credit: 0.5

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 Winds Choir, as well as its own designated formal concert 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

Introduction to Digital Video

Arts

611

Fall/Spring

Credit: 0.5

Students explore various aspects of video production and relevant movie making technologies. While using available digital media students work on individual and group projects that explore a variety of movie making techniques. An ongoing critical dialogue will be at the center of the production process.

Available to students in Grade 9 only

Digital Video I

612

Digital Video II

615

Arts

Fall/Spring

Credit: 0.5

Video storytelling is at the heart of this course designed to expose students to current and historical 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 2 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

Advanced Digital Video III 616
Advanced Digital Video IV 618

Arts

Fall/Spring

Credit: 0.5

Writing and directing become more of a focus when students get to this point in the sequence. A variety of projects are planned to deepen student understanding of video production. Advanced students are expected to take on more of a leadership role in 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 11 and 12 who meet prerequisites:

- Arts 612
- Permission of the instructor

Journalism

The Journalism program is interdisciplinary in that it bridges the mediums of print, web, and video. These yearlong courses range from introductory to advanced levels, allowing students the opportunity to advance from Journalism I to Journalism III, as they continue to build and hone their skills in reporting and expand their personal portfolios. All students enrolled in Journalism I will receive Academic Elective credit. Students in Journalism II and III will have the option to earn Academic Elective or Arts credit with departmental approval. Additionally, students in Journalism II and III will be encouraged to apply for editorial positions on *The Prism*, such as section, web, content, and photo editors. All coursework contributes to *The Prism* student newspaper, as well as *The Prism's* online publication. Students are assessed on class productivity, collaboration, initiative, independent work, meeting deadlines, and producing polished final projects.

Journalism II

Academic Elective 172
Arts 636

Full-Year

Credit:1

Students in Journalism II will apply knowledge and hone reporting and writing skills learned in Journalism I as they produce the monthly student newspaper, mentor Introduction to Journalism students, and expand their personal portfolios. In addition, they will master the practical aspects of producing print, web, and video content under deadline. Students in Journalism II will be given the opportunity to apply for editorial positions.

Available to students in Grades 11 and 12 who meet the prerequisites:

- Journalism I
- B- or above average in Journalism I

Qualifies for either Arts or Academic Elective credit

Journalism III

Academic Elective **173** **Full-Year** **Credit: 1**
Arts **637**

This course is for budding videographers, journalists, and documentarians who have already taken Journalism I and Journalism II. Students will continue to learn the fundamentals of print, web, and video journalism to create in-depth reports on current issues of interest and concern to the Packer community. Stories will be published routinely in *The Prism* newspaper, as well as on *The Prism* website. Students in Journalism III will continue to serve as leaders and mentors in the class, and they will be given the opportunity to apply for editorial positions.

Available to students in Grade 12 who meet the prerequisites:

- Journalism I and Journalism II
- B- or above average in Journalism II

Qualifies for either Arts or Academic Elective credit

Introduction to Visual Art

Arts **610** **Fall/Spring** **Credit: 0.5**

In this freshmen Introduction to the Visual Arts, students will work with a variety of media including drawing, Painting, Printmaking and sculpture. Students will work with a range of materials and develop skills in observational drawing as well as exploring other conceptual approaches to making art. They will work with traditional themes of landscape, still life and portraits and also use the school and city environments for inspiration.

Available to students in Grade 9 only

Sculpture

Arts **687** **Fall** **Credit: 0.5**

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

Studio Art I

Arts

631

Fall

Credit: 0.5

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

Studio Art II

Arts

632

Spring

Credit: 0.5

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:

- Completed Studio Art I (Arts 631)
- Or Permission of the instructor

Advanced Topics in Studio Art: Level 1 (Junior year) and Level 2 (Senior year)

Arts	681(Level 1) 683(Level 2)	Full-Year	Credit: 1
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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.

Available to students who meet prerequisites:

- Consistent demonstration of criteria noted on page 4 of this Guide
- Completion of a year of intermediate art or equivalent

Photography: Method and Concept

Arts	622	Full-Year	Credit: 1
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In this era of smartphones 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.

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.

The school provides film cameras for use in class. Students purchase film and photographic paper for darkroom work.

Available to students in Grade 10 through 12

Advanced Topics in Photography

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 classwork 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 criteria noted on page 4 of this 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

Available to students in Grades 11 and 12

Early Morning Yoga

PE

713

Fall/Spring

Credit: 0.5

Morning Yoga is open to students in grades 9 through 12. No prior yoga experience is necessary. Yoga postures are introduced, practiced, and combined with relaxation and breathing exercises, meditation, and philosophy. The class meets at 7:00am three times per cycle.

After School Workout

PE

763

Fall/Spring

Credit: 0.5

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. This class is designed to challenge students both physically and mentally by incorporating more advanced exercise techniques as well as inspiring student creativity in developing their own workout programs. In this class, we focus on learning the proper form of specific exercises and understanding the various key elements that create a successful workout. Social skills are integrated in all activities, and students are encouraged to maximize their abilities as they engage in a variety of modified workouts.

The class meets at 3:30pm twice a week.

Available to students in Grades 11 and 12 who meet the prerequisites:

- Department Head approval
- Scheduling constraint

AED/CPR/First Aid

PE

762

Spring

Credit: 0.5

Students will receive a two- year certification from the American Heart Association (AHA) in cardiopulmonary resuscitation (CPR), automatic external defibrillator (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.

Dance and Choreography

Arts	659	Full-Year	Credit: 1.0
PE	759		

This course is designed to help 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 their own ensemble of dancers. Attendance at one performance of a professional dance company and two individual conferences with the teacher are also required.

Available to students who meet prerequisites::

- One semester of either Dance Technique or Packer Dance Company or by permission of the instructor

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

AT Choreography

Arts	635	Full-Year	Credit: 1.0
PE	720		

This course provides the opportunity for the in-depth of study of choreography, improvisation, performances skills, and personal creative process through advanced compositional assignments and performances. A major focus of the class is the required participation as a choreographer in the Dance Concert and other showcases, which requires a good deal of time in required after-school rehearsals. While learning the craft of composition or “dance-making” 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 to students who meet prerequisites:

- Arts 625 (Dance & Choreography)
- Recommendation of the instructor

Available to students in Grades 11 and 12; qualifies for either 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
Girls JV Soccer
Boys JV Soccer
Boys Varsity Soccer
Girls Varsity Cross Country
Boys Varsity Cross Country
Girls Varsity Tennis

Winter:

Girls JV Basketball
Girls Varsity Basketball
Boys JV Basketball
Boys Varsity Basketball
Girls Varsity Swim
Boys Varsity Swim
Co-ed Varsity Squash
Girls Varsity Indoor Track
Boys Varsity Indoor Track

Spring:

Boys Varsity Baseball
Girls Varsity Softball
Boys Varsity Volleyball
Girls Track & Field
Boys Track & Field
Co-ed Ultimate Frisbee
Co-ed Varsity Golf
Boys Varsity Tennis

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
Girls JV 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
Girls Varsity Tennis	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 Varsity Baseball	3 and 4	2nd
Boys Varsity Volleyball	3 and 4	2nd
Boys Varsity Track & Field	3 and 4	2nd
Co-ed Varsity Ultimate Frisbee	3 and 4	2nd
Boys Varsity Tennis	3 and 4	2nd
Co-ed Varsity Golf	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 Assistant Athletic Director.
2. Attend all games during the season to fulfill duties appropriate to the team sport. Duties may include assisting with equipment, set up, scorekeeping, record keeping, running the clock, calling lines, writing up game and practice schedules, etc.
3. Managers of Fall and Spring sports are exempt from PE class for the **duration of the season**. Student managers **MUST have a PE class in their schedule**, as 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.
4. 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: Bridget Loday

Upper School Health Education courses are designed to educate students to take responsibility for their choices, understand consequences, and learn from their experiences. Building on the Lower and Middle School Health Education, the Upper School courses address the foundational concepts of self-awareness, healthy communication, values based decision-making, recognition of and respect for diversity, and community membership. The Upper School program includes a seminar class in ninth grade, a year-long course in tenth grade, and finishes with a 12th grade seminar class. The Health Department also oversees the Peer Leadership Programs which involve teaching upper school students leadership capabilities including: active listening, small group facilitation skills, conflict resolution, and relationship building. These skills are practiced through peer mentorship and regular meetings with small groups of younger students.

Grade Nine Health (required)

Health	751	Fall	Credit: 0.0
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Health 9 focuses on the transition from middle to upper school. The program covers: stress management, effective communication, and risk reduction strategies. We spend time exploring the essential question: "How can I better understand myself and find support through the transition into Packer's Upper School?" This is a seminar class and meets nine times in the opening weeks of school.

Grade Ten Health (required) (Meets 2.5 times per rotation)

Health	752	Full-Year	Credit: 0.5
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Health 10, the cornerstone of the Upper School Health Education program, is a year long, graded course which focuses on four main units of study: alcohol and other drugs, social and emotional wellness, food, and human sexuality. Mindfulness and meditation are interwoven throughout. Other than class participation, which accounts for sixty percent of the grade in Health 10, students are assessed through articles, written journal assignments, and class projects.

Grade Twelve Health (required)

Health

Spring

Credit: 0.0

The overall goal of this course is to help prepare seniors for the transition from Upper School to college and life on campus. Topics include separation from family, home, friends and high school; STIs; contraception; sexual assault; drugs and alcohol; mental and physical health. This is a seminar class and meets during the Spring.

Peer Support Team Training

Health

754

Full-Year

Credit: 0.5

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 (PALS)

Health

760

Full-Year

Credit: 0.5

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 bi-monthly sessions with their seventh graders.

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