# Table of Contents

## The Four Year Plan
Graduation requirements 3

## Special Programs
Advanced Placement courses 4
Independent Study 4
Senior Thesis Program 5

## Course Descriptions
Computer Science 6
English 8
World Languages 15
History 24
Mathematics 31
Science 37
Fine and Performing Arts 44
Physical Education 54
Health 58

## College Counseling
SAT Subject Tests: Which one? When? 59

## Frequently Asked Questions
About the SAT Reasoning Test and SAT Subject Tests 63
Semester Away Study Programs
WELCOME TO PACKER’S UPPER SCHOOL

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

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

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

Students in their junior and senior years have increased flexibility in their academic schedules. Advanced Placement (AP) courses and upper level electives from each of the academic departments enable students to pursue particular strengths and talents. The eleventh grade program features Biology, and a variety of electives in English and History. Students must complete at least one History elective designated a global skills course. Two History electives are required over the course of the junior and senior year. Students are required to take two semesters of English in their junior AND senior year. 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.

Graduation Requirements

Four credits of English
Three credits of a world language
Three credits of mathematics
Three credits of history
Three credits of sciences
Two credits of elective academics
Two credits of arts
Four credits of physical education
One credit of health to be completed in the 10th grade; (The Health program also includes quarter long courses in the 9th and 12th grade.)
Forty-five hours of school and community service
Advanced Placement and Advanced Courses

Advanced Placement (AP) and advanced courses enable students to pursue courses at the highest level of achievement and indicate that a student is pursuing the most rigorous course of study offered at Packer. To succeed in such a course, a student must possess not only the requisite content skills, but also the traits that characterize a commitment to serious study.

**Students who succeed in AP and advanced courses are** self-motivated, responsible, intellectually curious, independent thinkers who actively seek and respond maturely to the constructive evaluation of their work.

**In addition to a student’s grade record the following criteria is used by teachers and department heads to make enrollment decisions for all AP and advanced courses.**

They also routinely demonstrate the following attributes, appropriate for their age:

- Solid understanding of concepts and facility with the skills from pre-requisite courses and material
- Ability to grasp complex and abstract ideas easily
- Strong analytic skills as demonstrated through class discussion, written work, and problem solving
- Clear, effective oral and written communication skills
- Well-developed student skills including: organization, effective note-taking, thorough and timely homework completion, and time management

Packer offers classes that prepare students for the following Advanced Placement examinations:
- Arts: Studio General; Art History; Biology; Calculus AB; Calculus BC; Chemistry; Computer Science; English Literature; French Language; European History; American Government/Politics; Latin: Vergil; Physics B; Spanish Language; Statistics.

**PLEASE NOTE:** It is Packer policy that students in AP classes are allowed to use ONLY those accommodations formally approved by the College Board.

SPECIAL PROGRAMS

**Independent Study Program**

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

Every independent study has a faculty mentor who is available to assist the student with completing a project proposal; mentor and student are expected to meet on a regular basis throughout the duration of the project. The mentor’s role is to serve as a guide and resource.
The emphasis in this program is on *independent*; it is the student’s responsibility to meet the deadlines and obligations of his/her program of study and the Independent Study program’s general guidelines.

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

**Senior Thesis Program**

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

**Program Requirements**

Senior Thesis Program participants will construct a research design that:

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

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

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

**Second Semester Course Load**

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

**Course Descriptions**

The course descriptions that follow represent a complete listing of courses offered in the upcoming school year (2013-2014). Some elective courses are taught every other year to ensure the widest array of choices is available to Packer students. All classes meet four days per week unless otherwise indicated in the course description.

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

Department Head: Jim Anderson

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

Please note that courses without sufficient enrollment will not run.

Ninth Grade Everyday Computing

Computer Science 820 Fall Class meetings: 1 (Q1) /2 (Q2)

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

Computer Science Fundamentals

Computer Science 812 Fall Class meetings: 4 Credit: .5

This course is an introduction to the discipline of computer science focusing on problem solving, software design, logic, Boolean algebra, and the principles of formal language theory. Students will design and construct software to solve increasingly interesting and challenging problems. They will also explore the historical framework of computer science, the nature of digital information, the evolution of the Internet and networking, and the cutting-edge technological issues affecting the world. Skills will be developed in preparation for AP Computer Science (optional). No prior programming knowledge is required.

This course is open to students in grades ten through twelve.

Programming Mobile Apps for the Real World

Computer Science 810 Spring Class meetings: 4 Credit: .5

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

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

**Three Dimensional Computing**  
**Computer Science 840 Spring**  
Class meetings: 4  
Credit: .5  
This class examines the boundaries between virtual and physical worlds. Students use Maya, a 3D animation software, to create virtual objects in a virtual space and then build those designs as real world objects on a 3D printer. With an understanding of how virtual objects can be realized in real space and time, this class looks at how virtual technology might affect our future reality.

Once students develop their 3D modeling skills, they begin animating their objects in a virtual environment. The class also looks at how 3D animation software has been used to create characters like Gollum from the Lord of the Rings and why Maya is the tool of choice for creating many popular digitally animated 3D films (including Kung Fu Panda, Sharktales, etc.)

This course is open to students in grades ten through twelve.

**AP Computer Science**  
**Computer Science 850 Year**  
Class meetings: 4  
Credit: 1  
This one-year course prepares students to take the Advanced Placement Computer Science exam. Students will further their knowledge of both computer science and the Java language through the study of advanced topics such as algorithm efficiency, recursion, object-oriented software design, and dynamic data structures.

Working with the AP Computer Science case study and their own complex programming projects, students will improve their ability to design, code, test, debug, and modify sophisticated programs.

**Prerequisites:**
- Consistent demonstration of attributes of students successful in AP and Accelerated Course Criteria (p. 4 of this curriculum guide), AND
- Permission of the department head, AND
- Grade of B+ or above in Computer Science Fundamentals or A or higher in Precalculus Advanced (Math 448)
Department Head: Elissa Krebs

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

Packer requires that students take English during each of their four years in high school. Ninth and tenth graders take year-long courses focusing on age-appropriate literature and skills, while eleventh and twelfth graders each enroll in two semester-long English electives. First semester and year-long journalism classes are open to tenth, eleventh, and twelfth grade students in addition to their required English courses.

Grade Nine

Self-Expressions

English 110

Year

Credit: 1

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

Texts may include: *Macbeth*, Shakespeare; *Persepolis*, Marjane Satrapi; and *One Flew Over the Cuckoo’s Nest*, Ken Kesey.

Grade Ten

The American Experience

English 120

Year

Credit: 1

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

Texts may include works by Ralph Waldo Emerson, Henry David Thoreau, Nathaniel Hawthorne, Walt Whitman, Emily Dickinson, Kate Chopin, James Baldwin, F. Scott Fitzgerald and Arthur Miller.
Grade Eleven

Students are required to take one elective in English during both the fall and spring semesters of 11th grade, choosing from a variety of elective courses that offer diversity in both genre and voice. Though the content in the courses varies, all eleventh graders will be required to read thoughtfully and reflectively and to write in a variety of ways. All courses include emphasis on improving analytical writing skills; an interdisciplinary approach to literature; and the opportunity for students to design at least one of their assessments.

Eleventh graders interested in taking one of the Advanced Placement English exams may take a supplemental course to become familiar with the demands of the test and to practice skills required by the test that are not included in the required eleventh grade course. Eleventh graders may also enroll in a senior English elective if space is available and their schedule permits.

Fall Semester for Grade 11

Poetry As Literature

English 150

Fall

Credit: .5

This is a course for lovers of poetry. Together, we will read poetry from a variety of time periods and in a variety of forms and styles; students will explore how to read poetry carefully and how to examine the poet’s craft. We will read and talk about poetry daily and write about it frequently as students hone their poetic, analytical, and interpretive skills. Students will write analytically and creatively and will have the opportunity to research a poetry topic of their choice.

Classical Literature of Greece

English 147

Fall

Credit: .5

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

Literature and Adaptation

English 149

Fall

Credit: .5

Witness what happens when Little Red Riding Hood hops into the car of a mysterious stranger and how Winnie the Pooh contemplates Buddhism between gulps of honey. Follow along with characters from 19th century England as they travel by horse and buggy down a dirt road in London and then slip into a sleek taxi amidst the bustling grid of modern-day New York City. Explore the heartbreaking narrative of a young man’s adventure in the wilderness as recreated by a contemporary journalist and a tale of love and heartbreak set amidst the harsh and rugged landscape of the American West. Listen to the sonnets of Shakespeare take on new life as rock songs.
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 tales reflect the values and attitudes of a time. In addition, we will observe how a story is influenced by form, by the way in which it is told. Texts may include: *Winnie-the-Pooh; The Tao of Pooh; Into the Wild; Grimm’s Fairy Tales; “Brokeback Mountain”*; writing from Charles Dickens; excerpts from Shakespeare, the Romantic poets, musical selections, and more. (In this course, we may view films rated R).

**Spring Semester for Grade 11**

**Literature of Colonialism**

**English 143 Spring Credit: .5**

As you explore the clash of nations in 11th grade history, we will explore the resulting clash of words on the page. This course will examine the impact of colonialism through a literary lens. We will focus on the British, French, and Belgian control of many parts of the world in the 19th and 20th centuries, as well as the literary legacy thereafter. Students will consider texts that examine the relationship between the oppressor and the oppressed. How do cultures clash, combine, and transform when one nation invades another? What drives the desire to conquer? In what ways can language and literacy be used as mechanisms of control? How can literature be transformative, a means of empowering and uplifting? Students will delve into texts reflecting multiple points of view from diverse parts of the world. Texts may include excerpts from British writers Rudyard Kipling, George Orwell, and Joseph Conrad; the Haitian novel *School Days* by Patrick Chamoiseau; the South African play *Master Harold and the Boys* by Athol Fugard; and short stories and poetry from the Botswanan writer Bessie Head, New Zealand Maori author Wit Ihimeria, and the Caribbean writer Derek Walcott.

**Love and Lust in Romantic and Victorian Era Literature**

**English 151 Spring Credit: .5**

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

**Literary Memoir**

**English 153 Spring Credit: .5**

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

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

**AP English**

English 160  
Class meetings: 1  
Year  
Credit: 1

This course meets once a week to prepare students for the AP English exams. Students will practice the close reading and test-taking skills necessary for success on the exam, write timed essays on a variety of topics, answer multiple choice questions on a variety of types of writing, and review the literary terms and techniques on which the exams focus. Upon successful completion of the course and sitting for the AP exam, students will receive an AP designation on their transcripts. In order to be successful in this course, students will need to be comfortable with and adept at reading and quickly analyzing long passages of complex prose and poetry.

Both AP English exams (Language and Composition; Literature and Composition) require students to respond to sophisticated writing on complex topics in a limited amount of time.

**Prerequisites:** This course is open only to juniors. Students wishing to be considered for this class should have a B+ average in tenth grade English. Placement decisions will be made by the English department head in consultation with tenth grade English teachers and the AP English instructor.

**Grade Twelve**

**Literary Endeavors**

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

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

**Fall Semester for Grade 12**

**War and Conflict in Dramatic Literature**

English 163  
Fall  
Credit: .5

In this class, we will look at the depiction of war and conflict in three plays: Shakespeare's *Henry V*, Bertolt Brecht's *Mother Courage*, and Lynne Nottage's *Ruined*. In addition to reading the plays, students will research the historical and political context of both the events in the plays and in the time in which they were written. Among the questions we will consider: What is the relationship between art and history? What is the playwright's responsibility in depicting actual events? What types of artistic license are acceptable, and what is irresponsible? We will also look at the depiction of war, conflict, and history in poetry, visual art, and film.
Classical Journeys in Literature

Seductive women who lure men to their watery deaths; lascivious clergy who have their bottoms scorched when they woo the wrong women; and flatterers buried for all eternity up to their eyeballs in excrement: sound like a commercial for a modern reality TV show? Look again – these are the ingredients of which the classics are made. In this course, we will explore three of the great classical journey novels, beginning in Ancient Greece with Homer’s *Odyssey*, traversing Medieval England with Chaucer’s *The Canterbury Tales* and ending in the depths of hell with Dante’s *Inferno*. This course will look at these classical journeys and examine how each work gives insight into its own time and yet holds sustaining relevance to modern society as well.

Science Fiction as Literature

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

Dostoevsky

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

New York City in Literature

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

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

Non-fiction Writing
English 152 Fall Credit: .5
Most of us read non-fiction every day – movie reviews, blog posts, sports recaps, news items, editorials. We read non-fiction in The New Yorker, Sports Illustrated, and the New York Times. In this class, we will both read and write non-fiction: movie reviews, food writing, personal essays, and travel pieces, among many others. Students will have the opportunity to experiment with a variety of styles and genres, and they will write as professional writers do: getting feedback, revising often, considering audience, researching topics where appropriate. Students will choose their own topics and their own genres and may use one assignment to work on a college application essay.

Spring Semester for Grade 12

Writing about Film
English 142 Spring Credit: .5
What does it mean to “read” a film? What is the language of film? In this class, movies, not books, are our texts. What tools do directors and cinematographers use to create meaning? Students will learn about film elements and techniques as they hone their visual skills and learn to “read” a film; they will demonstrate their interpretive and analytical ability through class discussions, film journals, a variety of writing assignments, and a self-designed final project. (In this course, we will view films rated R).

The Rebel in Literature
English 144 Spring Credit: .5
What happens to people who deliberately break society’s rules? Who makes these rules? What is the cost of rebellion? These are some of the questions that we’ll ask and answer in this course, using drama, fiction, poetry, and film as our texts, which may include Shakespeare’s The Taming of the Shrew, Flaubert’s Madame Bovary, and Jane Campion’s The Piano. In addition to studying the texts, students will research the cultural and social norms and mores both of the era depicted in the work and in the era in which they were produced.

Creative Writing: Short Fiction
English 169 Spring Credit: .5
In Creative Writing: Short Fiction, students will be given the opportunity to develop their voices by studying the mechanics of fiction; engaging in various writing exercises, including mimicking styles of published authors; developing pieces based on prompts; writing in groups; and writing on specific themes, etc. As the course is grounded in a workshop setting, with two 10-page stories and a revision due as the major grade, students will evaluate their own work as well as the works of other writers, including their peers. Creative Writing: Short Fiction strives above all to create a comfortable and productive atmosphere rooted in creativity, constructive criticism, and intellectual daring.
Latin American Literature (in translation)
English 145 Spring Credit: .5
The biggest literary explosion of the 20th century, the Latin American "Boom," produced such writers as Juan Rulfo, Gabriel Garcia Marquez, and Julio Cortazar. During the course of the semester, we will read each of these Boom writers, looking at Garcia Marquez's masterpiece 100 Years of Solitude (where beautiful women fly to heaven while hanging sheets and people live for 145 years), Juan Rulfo's Pedro Paramo (where a series of narrators speak from the grave), short stories of Cortazar (where people transform into salamanders), and Borges (where folks wander inside literal and metaphoric labyrinths). 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.

The Bible as Literature
English 155 Spring Credit: .5
There is only one book whose name means the book, and that’s the Bible. It is unquestionably the book with the greatest influence on your life—and that’s true even if you've never read a page of it; its cultural influence is pervasive. Yet in this course we will attempt, at times, to read it as if three thousand years of Western history and culture had never happened; that is, to the extent humanly possible, to read the Bible without preconceived beliefs, simply as freshly written stories whose main character is God. We will read selections, in standard and more modern translations, from Genesis, Exodus, the story of David, the Prophets, the Book of Job, and the Gospels. We will also look at ways that artists and writers have creatively re-imagined the Bible, including Michelangelo's Sistine Chapel paintings and John Milton's Paradise Lost.

Screenwriting
English 157 Spring Credit: .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 changed. The text 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 rated R).

Journalism – (Grades 10-12)

Print Journalism
English 161-Year/162-S1 First Semester or Year Credit: .5/1
In this course, students learn the skills involved in the craft of newspaper journalism, including how to interview sources; how to report and write various news stories; how to take news photographs; and how to write headlines, captions, and cutlines. Topics include current events, newsworthiness, fairness and accuracy, ethics, student press rights and freedoms, and beat reporting.
Students will also put their skills and knowledge into practice by writing for *The Prism*, the Upper School’s monthly newspaper. This class will meet five days a week.

**Video Journalism**  
**Arts 633/English 166**  
**Year**  
**Credit 1**

This course is for budding videographers, journalists, and documentarians. Video Journalism students will learn the fundamentals of broadcast journalism and video production to create video broadcast reports on current issues of interest and concern to the Packer community. In collaboration, students will research and explore, plan, and create a quarterly video program comprised of segments about a specific topic. Theme-based units could include: environmentalism and sustainability, relationships and sexuality, gentrification and urban development, political activism and leadership, and discrimination. These “news programs” will be broadcast to the Packer community.

This course is open to students in grades eleven and twelve.  
**Prerequisite:** Introduction to Journalism, Advanced Journalism, or Digital Video (Arts 612).

---

**World Languages**

**Department Head:**

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

Packer requires students to successfully complete level III in 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 and grades. Students entering the ninth grade may opt to choose a new language, space permitting.

**NOTE:**  
---COURSES WITHOUT SUFFICIENT ENROLLMENT WILL NOT RUN.  
---STUDENTS WILL MOVE ON TO THE NEXT LEVEL OF WORLD LANGUAGE ONLY WITH THE PERMISSION OF THE DEPARTMENT HEAD

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 her representative.

**SPANISH PROGRAM**

**Spanish I**
**Spanish 228**  
Credit: 1  
This Upper School course is an introduction to the Spanish language. While acquiring a solid, basic vocabulary, the beginner will exercise the four skills necessary for the mastery of language: listening, speaking, reading, and writing. The course will combine a communicative approach with a solid grammar base, enabling beginning students to express themselves. Appropriate readings from authentic sources, communicative activities, and cultural presentations will serve to enhance student learning.

**Spanish II**
**Spanish 227**  
Credit: 1  
Spanish II students will continue to consolidate the skills learned in Spanish I. They will be exposed to new and more advanced grammar topics while continuing to develop their communicative abilities. Students will be introduced to authentic literary texts that will serve as a basis for vocabulary acquisition, brief writing assignments, and in-class discussion.

**Prerequisite:** Spanish I and the permission of the Department Head.
Spanish III
Spanish 238
Credit: 1
Spanish III students will progress from an intermediate to an advanced level in Spanish. Areas of study will include the subjunctive and imperative moods, as well as all commonly used verb tenses. Through readings of authentic materials and the study of complementary resources, students will broaden their vocabulary and solidify their command of Spanish grammar. Written and oral summaries of readings, together with classroom discussion and extensive grammatical analysis, will provide a springboard for the student’s development in the target language.

Prerequisite: Completion of Spanish II and the permission of the Department Head

Spanish IV-A: Advanced Spanish Grammar, Composition and Style
Spanish 247
Credit: 1
This advanced course supports students in achieving mastery of the grammar learned in Spanish I, II, and III. Students will be introduced to the skills necessary for and standards of the SAT Subject test and the Advanced Placement Spanish Language examinations. This course will focus on advanced vocabulary acquisition, speaking, reading comprehension, and listening. Students will be introduced to basic literary themes and movements in Hispanic literature. Students enrolled in this course should be prepared to sit for the SAT Subject test in Spanish.

Prerequisite: Spanish III and the permission of the Department Head

The following courses are offered in alternating years and satisfy the requirements for Spanish 248 and 258:

Spanish IV/V: Spanish Language, Literature and Culture: The Iberian Peninsula
Spanish 248/258
Credit: 1
This intermediate-advanced culture and conversation class provides students with a variety of opportunities to learn about the Spanish-speaking world. Students will study history, political trends, artistic movements, and literature from Spain. Grammar will not be taught explicitly but rather explored through the lens of literature, music, and film. Students applying for this course are therefore expected to have a solid grasp of common grammatical areas such as verb conjugations in the present, preterite and imperfect tenses in the indicative and subjunctive moods. The course will incorporate literary extracts from the medieval and the Golden Age periods as well as readings from more contemporary authors. We will explore a mix of theatre, poetry, and topical writings from online or printed sources. Authors may include, but are not limited to, Cervantes, Lorca, Hernández, and Machado. Students will also be exposed to television, music, and film from the Iberian Peninsula. Students will continue to work on the four language skills: reading, writing, listening, and speaking, with an emphasis on speaking. Participation in the target language is required at all times.

Prerequisite: Spanish III and permission of the Department Head

Spanish IV/V: Spanish Language, Literature and Culture: Cultures of the Caribbean
Spanish 248/258
Year Offered: 2013-2014
Credit: 1
This intermediate-advanced culture and conversation class provides students with a variety of opportunities to learn about the Spanish-speaking world. Students will study popular culture,
film, history, art, and literature with a special emphasis on the Spanish-speaking Caribbean. Grammar will not be taught explicitly but rather explored through the lens of literature, music, film, and printed sources (interviews, news articles, etc.). Therefore, students are expected to have a solid grasp of common grammatical areas such as conjugation in the present, preterite, and imperfect tenses.

Much of the focus of this course will be on the topic of cultural and personal identity and possible topics include U.S./Cuba relations, immigration, and the war on drugs. In all aspects of this course, students will continue to work on the four language skills: reading, writing, listening, and speaking through the use of authentic materials.

Prerequisite: Spanish III and permission of the Department Head.

Advanced Placement Spanish Language
Spanish 257 Credit: .1
This advanced Upper School course combines an analysis of current events and social controversies with an intensive grammar review. Contemporary writings, newspapers, magazine articles, and audio files are used to engage discussion and improve oral proficiency, an essential part of the Advanced Placement exam. Essays and oral presentations are directed toward increased accuracy and fluency.

Each student in this course is expected to take the AP exam in May.

Prerequisite: Advanced Spanish and the permission of the Department Head

FRENCH PROGRAM

French I
French 214 Credit: .1
This Upper School course is an introduction to the French language and the Francophone world. While acquiring a solid, basic vocabulary, the beginner will exercise the four skills necessary for the mastery of language: listening, speaking, reading, and writing. The course will combine a communicative approach with a solid grammar base, enabling beginning students to express themselves in the target language. Students will enhance their learning through readings from authentic sources, communicative activities, and exploration of French and Francophone history, culture, and society.

French II
French 220 Credit: 1
French II students will continue to consolidate the skills learned in French I. They will be exposed to new and more advanced grammar topics, such as how to use the various past tenses, while continuing to develop their communicative abilities. Students will be introduced to authentic literary texts that will serve as a basis for vocabulary acquisition, brief writing assignments, and in-class discussion.

Prerequisite: French I and the permission of the Department Head.
**French III**  
**French 230**  
Credit: 1  
French III students will progress from an intermediate to an advanced level in French. Advanced grammar topics will include the subjunctive and conditional moods. Students will be exposed to an array of authentic materials, both written and oral, ranging from articles pertinent to the different vocabulary themes studied throughout the year to the poetry and literature of important French and Francophone authors and cultural figures. Written and oral summaries of these works, together with discussion in the classroom, will provide a meaningful context for the student’s progress in the areas of grammar and vocabulary.

**Prerequisite:** French II and the permission of the Department Head.

**French IVA: Revolt and Identity (Advanced Grammar)**  
**French 240**  
Credit: 1  
This advanced French language, literature and history course will focus on the four major regions of the French colonial empire: North America, Indochina, North Africa, and the Caribbean. In addition to further developing the grammar studied in context, this course will delve deeply into Francophone history, drawing comparisons between colonial struggles in different parts of the world and the consequences and outcomes of those struggles. The course will concentrate on the colonization and decolonization of these regions through primary sources, including literature and film excerpts, newspaper articles and essays, poetry, maps, and archival documents. Students will also study vocabulary and linguistic issues pertinent to each region. By the end of this course, students will have a strong understanding of French colonial history and post-colonial theory, and they will have been exposed to four distinct cultural backdrops and their respective artistic expressions.

**Prerequisite:** French III and the permission of the Department Head.

The following courses are offered in alternating years and satisfy the requirements for French 241 and 251:

**French IV/V: French Language, Literature and Culture: Francophone world**  
**French 241/251**  
**Year Offered:** 2013-2014  
Credit: 1  
This intermediate-advanced culture and conversation class provides students with a variety of opportunities to learn about the French-speaking world through a young person’s perspective. Through the rich literary and cinemtic traditions of France and the Francophone world, students will engage with questions relating to society, history, political trends, artistic movements, literature, and current events. Literature may range from short stories to poetry to excerpts of novels. Films studied may include but are not limited to: Les Quatre Cents Coups, Chocolat, L’esquive, Entre les murs, Être et Avoir, and Rue Cases Nègres. Active participation is an essential part of this course. Through the use of debates, exposés (oral presentations), and daily class discussions, students will raise their level of conversational French. There will be a regular revision of grammatical concepts based on students’ needs.

**Prerequisite:** French III and the permission of the Department Head
French IV/V: French Language, Literature and Culture: 20th/21st Century France
French 241/251
Year Offered: 2012-2013  Credit: 1
This intermediate-advanced culture and conversation class provides students with a variety of opportunities to learn about the French-speaking world. Through the rich literary and cinematic traditions of France, students will engage with questions relating to society, history, art, literary movements as well as current events. Literature may range from short stories to poetry to excerpts of novels that may include such writers as: Jean-Paul Sartre, Annie Ernaux, Marie Ndiaye, and Fatou Diome. Active participation is an essential part of this course.

Through the use of debates, exposés (oral presentations), and daily class discussions, students will raise their level of conversational French. There will be a regular revision of grammatical concepts based on students’ needs.

Prerequisite: French III and the permission of the Department Head.

Advanced Placement French Language
French 250  Credit: 1
This advanced Upper School course combines an intensive grammar review with an exploration of contemporary themes. Students study and discuss a wide range of texts, from newspaper and magazine articles to poetry and excerpts from literature. They also work on developing advanced aural skills through the regular practice of listening to authentic audio material drawn from the new AP practice texts and the Internet. Essays, regular short written exercises and frequent oral presentations both in and out of class using Voicethread develop precision and fluency in both writing and speaking. Each student in this course is expected to sit for the AP exam in May.
Texts include: Une Fois Pour Toutes, Halte Sturge II, Linda Cregg Nielsen, Henry Lynn Herbst

Prerequisite: Advanced French and the permission of the Department Head.

LATIN PROGRAM

Latin I
Latin 218  Credit: 1
This Upper School course is an introduction to the Latin language. For the purpose of enriching the student’s vocabulary, the course will emphasize the study and memorization of Latin vocabulary and its roots and derivations. The class will increasingly focus upon identifying parts of speech and using basic grammatical forms and functions in Latin as a means to improve reading fluency. Within the context of narrative reading passages, students will encounter the various types of nouns, their inflected endings, and the different tenses of verbs that occur in Latin. This introduction to the nuances of the Latin language will be accompanied by an emphasis on the rich historical and cultural aspects of antiquity.

Latin II
Latin 225  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.

**Prerequisite:** Latin I and the permission of the Department Head

**Latin III**
**Latin 235**
Credit: 1
This intermediate Upper School course is a continuation of all the skills mastered in previous Latin courses. Students will continue to develop and sharpen their ability to read Latin with comprehension, to translate with accuracy (both from and into Latin), and to analyze grammatically the structural components of a Latin sentence as presented within the context of patterned sentences and continuous passages. The more advanced structures of Latin grammar are introduced through and reinforced by the reading of authentic Latin authors, including Caesar, Cicero, Pliny, Catullus, Martial, Vergil, and Ovid.

Students engage in more in-depth historical and cultural studies of Rome and the development of Latin literature as these topics emerge from the readings. For the purpose of enriching the student's English vocabulary, the course will emphasize the etymology and derivations of the Latin vocabulary encountered.

**Prerequisite:** Latin II and the permission of the Department Head.

**Latin IV**
**Latin 265**
Credit: 1
This advanced Upper School course combines a survey of Latin literature with a review of upper level grammar. Students develop their comprehension, facility and analytic skills as they aim at increased accuracy in translating a range of authors and genres. Historical and cultural topics serve to augment the readings and to illuminate aspects of the ancient world. The students will also be introduced to Roman poetry and meter, including the work of Vergil, whose epic, the *Aeneid*, is treated at the AP level. Students enrolled in this course would be ready, should they so choose, to sit for the SAT Subject test in Latin at the end of the school year.

**Prerequisite:** Latin III and the permission of the Department Head.

**Advanced Placement Latin**
**Latin 245**
Credit: 1
This advanced Latin course prepares students for the Advanced Placement exam in Latin through a comprehensive study of selections from Caesar's *Bellum Gallicum* and Vergil's *Aeneid*. The skills developed during the course include accurate translation and critical interpretation; scansion; and identification and analysis of figures of speech and imagery. The inclusion of two essential authors not only affords students the opportunity to read both poetry and prose, but also to attain broad exposure to aspects of Roman history and culture, with an emphasis on the transition from the fall of the Republic to the rise of the Empire. Each student in this course is expected to take the AP exam in May.

**Prerequisite:** Latin IV and the permission of the Department Head.
Honors Latin - This course will be offered contingent upon enrollment and staffing considerations.

Latin 260 Year Credit: 1
This advanced level reading/special topic course is open to Latin students who have either already taken AP Latin or have completed Latin IV and wish for more reading practice prior to going on to the AP level. Students in this course will have the opportunity to sample an array of ancient authors and various genres of literature in both prose and poetry. The course will focus upon a special topic, this year upon the theme of mythology. Besides exploring how myths come about in ancient and primitive cultures and the purposes they serve, students will focus upon such topics as the creation myths of the Greeks and Romans and the anthropomorphic nature of their respective pantheon of gods and goddesses, ancient religious practices, mystery cults and initiatory rites, and the oracles of Delphi and Cumae. Students will also compare the Greek and Roman mythological systems to those of other ancient and modern cultures. A number of mythological stories, legends and fables will be read in Latin, with a concentration upon the famous mythological cycles and characters that have continued to reverberate through the centuries in the literature, art and even the psychology of later cultures.

Texts (and handouts) will include:
In English: Hesiod, Theogony; Homer, Iliad; The Homeric Hymns; G.S. Kirk, Myth: Its Meaning and Functions in Ancient and Other Cultures; Mark Morford and Robert Lenardon, Classical Mythology; Aeschylus, The Oresteia

In Latin: Ovid, Metamorphoses; Livy, The Early History of Rome; Phaedrus, Fabulae; Seneca, Thyestes

Prerequisite: A grade of B- in Latin 265 or permission of the department head

CHINESE PROGRAM
Unlike European based languages, Chinese has little linguistic or direct cultural connection with English. This lack of connection presents an extra layer of challenge for native English speakers, and requires a longer period of study before students reach an equivalent level of proficiency. In order to ensure the greatest degree of success, students of Chinese are enrolled in a program that progresses from Level 1 through Level 5 before taking on the rigors of the Advanced Placement Course: Chinese Language and Culture. Each successive level of Chinese builds upon the language and cultural skills mastered during the previous year.

Chinese I
Chinese 200 Credit: 1
This introductory Upper School course aims to develop the student’s basic language skills in listening, speaking, reading, and writing at an introductory level of the Chinese language. Students learn to use the phonetic system of Pinyin and to recognize and reproduce around one hundred and fifty Chinese characters. They will also learn to write in simplified characters. Dialogues and simple descriptive/narrative texts cover everyday topics, issues of interest, and idiomatic expressions.
Chinese II
Chinese 202  Credit: 1
This basic, intermediate course builds upon the fundamental skills mastered in Chinese I. Students will continue to use the phonetic system of Pinyin and will be able to recognize and reproduce an additional one hundred and fifty characters. Exercises and drills to recognize and reproduce tones will be given in every class to help the students sharpen their listening and speaking skills. Students will also use the computer to write dialogues and short passages that they will share with the class.

Prerequisite: Chinese I and the permission of the Department Head.

Chinese III
Chinese 203  Credit: 1
This advanced-intermediate course offers a continuation of all of the skills mastered in the previous Chinese courses. Students will continue to hone their understanding of the four main skill groups: reading, writing, speaking, and listening. Students will also increase their ability to carry on a conversation in Chinese, exploring a wider range of topics, while building vocabulary and solidifying their knowledge of basic syntax. Students will learn an additional three hundred Chinese characters to increase their reading comprehension and writing skills. At the completion of this course, students will be able to carry out daily conversations that demonstrate basic understanding of culture and customs, and to write simple and short essays.

Prerequisite: Chinese II and the permission of the Department Head.

Chinese IV
Chinese 205  Credit: 1
This intermediate-advanced Upper School course is a continuation of all four skills mastered in the previous courses. Students will continue to develop the four main language skills: reading, writing, speaking, and listening. Students will expand their ability to carry out conversations on a wider range of topics and start to use more idiomatic expressions while building their vocabulary and solidifying their knowledge of sophisticated syntax. Students will also enhance their ability to recognize and write characters. At the completion of this course, students will be expected to carry out regular conversations in real life with cultural sensitivity and will be able to write three-paragraph essays.

Prerequisite: Chinese III and the permission of the Department Head.

Chinese V
Chinese 207  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 Chinese I, II, III and IV. Students will develop skills in intermediate vocabulary acquisition, oral production, reading and listening comprehension, and writing, in addition to introducing basic themes in Chinese contemporary Chinese society.

At the completion of this course, students will be able to participate in oral discussions with linguistic ease and cultural sensitivity, and to write essays on social and cultural topics.

Prerequisite: Chinese IV and the permission of the Department Head.
Advanced Placement: Chinese Language and Culture  
Chinese 209  
Credit: 1
This advanced language course combines an exploration of Chinese literature with an intensive grammar study. Contemporary literary writings, newspapers, and magazine articles will be used to perfect reading comprehension skills as well as to engage discussions and improve oral proficiency. Advanced vocabulary and the acquisition of idiomatic expressions will be a major focus of this course.

Essays and oral presentations on a variety of topics will lead the students toward increased oral and written accuracy. In addition to improving their reading and writing, the students will spend time perfecting their listening comprehension and advanced speaking skills. All students are expected to sit for the AP Chinese Language exam in May.

**Prerequisite:** Chinese V AND the permission of the Department Head.

---

**History**

**Department Head: Erland Zygmuntowicz**

The history 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 supports the development of writing and research skills as well as an abiding enthusiasm for 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 fifteenth century. In the tenth grade, students explore the conflicts and compromises in United States history. In the 11th and 12th 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. Qualified students may also pursue Advanced Placement (AP) courses in European history and United States government.

**Note:** Courses which meet the department’s 3rd year global graduation requirement are designated with an asterisk (*).

**Humanities: Foundations of World History**  
History 311  
Year  
Credit: 1
This course explores the world’s major centers of culture from ancient times through the 16th century. We begin with the evolution of communities from Neolithic societies to the urban civilizations of Southwest Asia, India and China. As the year progresses, we focus on the development of major world religious and philosophical traditions in classical Greece, Rome, India and China. We examine the rise of Islam; the rise of new states in Africa; the development of feudalism; and the Renaissance and Reformation in Europe. Finally, we explore increasing global
interaction resulting from Mongol conquests in Eurasia and European expansion in the Americas. Using primary and secondary sources, students will trace trade and migration routes, discuss sacred and secular texts, and analyze surviving remnants of architectural and artistic creativity.

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.

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

**US History History 320**

United States History investigates the notion of the American Dream as myth and reality. Organized to cover a wide variety of crucial topics in U.S. History—including the way that early American history has been used and manipulated by political parties, the controversies surrounding the United States’ role on the world stage, and the emergence of social movements such as the Tea Party and Occupy Wall Street—we will spend the year assessing the degree to which this Dream has been made available to all. Guiding the design of the units is the framework provided by the “history lab” approach which is intended to enable students to master the fundamental skills of the historian: working with primary sources, conducting original research using 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. Additionally, for students who possess a strong interest in the study of American history and who receive teacher approval (based on first quarter work), a challenge option will be provided; students who meet the increased demands of the challenge option assignments will be awarded an Honors designation on their transcript at the end of the school year.

**Modern World History I** *(Open to students in grades 11 and 12)*

History 340 Fall Class meetings: 4 Credit: .5

In this course students will examine the impact that globalization has had on the unique cultures, economies, and political systems of Asia, Europe, Africa, and the Americas from 1700 to 1850. Students will learn how the global exchange system formed in the 18th and 19th centuries fundamentally altered the relationships between the different regions of the world and why it led to the rise of early nation states. By studying how different regions of the world met the challenges of globalization, students will understand what was gained, lost or preserved in the process and why traditional ideas about government, religion and social order were thrown into question.

**Texts:** *A History of the Modern World,* by R.R. Palmer and Joel Colton; *Western Civilization: Sources Images and Interpretations* 3rd Edition, by Sherman

**Note:** Modern World History I can be taken alone or in conjunction with Modern World History II.

**Scientific and Historical Origins of Race and Gender**

History/SCI 351 Fall Class meetings: 4 Credit: 5

The course will begin with an overview of human evolution, so students have a biological understanding of the evolutionary ideas that have influenced society. This will include fossil comparisons and DNA analysis. Students will then study the emergence of Darwinism as a scientific theory, including the socio-cultural context in which Darwin was conducting his research.
and developing his ideas. In addition to looking at the scientific debates prevalent at the time, students will investigate the influence of biological theories on the anthropological school of Evolutionism and its studies of culture. We will move into an exploration of how these theories influenced society and shaped governmental policies in the late 1800's through the mid-1900's – policies that have resulted in the oppression of communities in the US and Europe. Our historical studies will include, but not be limited to, slavery, gender discrimination, imperialism and colonialism, the Eugenics Movement, and Nazism.

Students will investigate the science behind these policies, looking at the realities of human genetics and the flawed methodology used to conduct scientific studies of race at the time. They also will research the historical context for these studies and reasons why American and European societies were receptive to these discriminatory ideas. The course will end in the contemporary US and Europe, with an examination of current instances of injustice and discrimination and debates around recent scientific studies.

Text: There is no required text. Selected readings will be handed out in class.
Prerequisite: Biology
Note: This course qualifies for either History or Science credit.

Modern China* (Open to students in grades 11 and 12)
History 346 Fall Credit: .5
This course traces China’s development from the relative peace and prosperity of the late 18th century, through internal decline and imperialist incursions of the 19th century, to the struggle in the 20th century to create a modern nation-state. The survey culminates with China poised to reclaim its past glory as a world power in the beginning of the 21st century.

Students will use Chinese materials in translation, including novels, autobiographies, reports, and films, to help students explore how individuals experienced the major political, cultural, social, and economic transformations of the past two centuries.


History of Warfare* (Open to students in grades 11 and 12)
History 353 Fall Credit: .5
Why and how do we fight? Zoologists have noted that chimpanzees, our nearest relatives, appear to engage in organized warfare. Archaeological remains suggest that violence was a fact of life at the very dawn of time. In A History of Warfare, we will study why we fight, and what may rightfully be considered war. Throughout the semester, students will study the conduct of warfare from the ancient world to the present day. The course will examine 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.”

Slave to History: Literature, History and Memory of Slavery *
(Open to students in grades 11 and 12)
History 347 Fall Credit: .5
Our popular understanding of slavery tells of the institution’s abolition in 1865 and freedom’s
tortured, though eventual triumph. But the legacy of slavery – the grossly disproportionate rates of African-American incarceration in U.S. prisons, the consistent link between race and poverty both in the U.S. and across the globe, the underdevelopment of Africa in comparison to the industrialized world, to name just a few consequences – is powerful evidence against this simple story of slavery’s demise. Studying slavery is an act of recovery, of reconciling with Americans’ amnesia, which has erased slavery from our memory and severed the bonds of history between people, places, and events tied to our shared slave past. This course examines slavery in literature and history – its origins in Africa and its development in the New World – by reading contemporary novelists, historical slave narratives, and the work of historians of slavery. Examining how both free and enslaved peoples narrated and lived slavery in the past, as well as how Americans remember and live with slavery’s legacy today, we will investigate the ways in which the “memory” of slavery still weighs upon the present to shape our lives.

Texts may include A Mercy by Toni Morrison; Incidents in the life of a Slave Girl, by Harriet Jacobs; The Viceroy of Ouidah, by Bruce Chatwin; and excerpts from William Faulkner, Frederick Douglass, Oulaudah Equiano, Mark Twain, and others.

Constitutional Law
History 342 Fall (Open to students in grades 11 and 12)
Credit: .5
Do women have a right to an abortion? Are corporations “persons”? Are all Americans guaranteed equal educational opportunity? These questions reflect some of the fundamental legal controversies that have been debated over the course of our history. The evolution of these debates illustrates the fact that the interpretation of constitutional law is a dynamic process, ever-changing within the context of history, politics and culture.

As a result, this course will focus on these and other crucial topics by studying the shifting relationships between individuals and the government and on relationships between the branches of the federal government and between federal and state governments.


Our Town
History 349 Fall (Open to students in grades 11 and 12)
Credit: .5
The history of New York City is to be found in neighborhoods, people, sights, and sounds. Since its founding by the Dutch in the 17th century, our city has gathered members of every tribe on earth to its shores. Our neighborhoods reinvent themselves continually, accommodating new people who seek only a chance to forge life anew. Nevertheless, every borough bears the stamp of its earlier histories and will reveal it to us if we are willing to look and learn. Students will read and write of the city’s rise from modest beginnings to its status today as the world’s capital. Throughout the fall we will read of New York’s writers and merchants, politicians and revolutionaries, its saint and sinners-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.

Criminal Justice
History 350 Spring (Open to students in grades 11 and 12)
Credit: .5
Americans are obsessed with crime—just turn on your television set or your favorite streaming internet site and you can’t help but confront that fact; Law and Order: SVU, CSI, NCIS, Criminal Minds, the list is seemingly endless. What then is the connection between this obsession and the
fact that, as *The New York Times* reported in 2008, “the United States leads the world in producing prisoners”? In this course, we will investigate America’s unique approach to criminal justice, with a particular focus on the juvenile justice system and current debates surrounding the legitimacy of the death penalty. By utilizing a comparative lens and tools from a variety of fields—including psychology, sociology, history, and political science—we will seek to understand the forces that shape the way our laws are created and applied and, in the process, to generate potential solutions for problems we identify within our justice system. Students in this course will take part in seminars with guest speakers in addition to field trips, including a visit to a court in New York City.

**Imagining The Past***  
* (Open to students in grades 11 and 12)  
History 345  
Spring  
Credit: .5  
Audiences have always enjoyed films that portray historical events. While scholars may bemoan Hollywood’s recreations of history, more moviegoers have learned of Babylon from D.W. Griffith’s *Intolerance* and Scotland’s William Wallace from Mel Gibson’s *Braveheart* than they have from the reading rooms of the university library. Depictions of the past’s events can possess a powerful immediacy, but can they accurately present historical truth? Do films distort our understanding of the past, or can they inform and educate? *Imagining the Past* will explore the value of representations of history. Students will consider whether a film can accurately depict the values and attitudes of a particular era, or whether it can only reflect the time in which it was made. Throughout the semester, students will view and analyze a series of films set during times of noteworthy historical events. Students will research the actual events represented in the specific films and will lead discussions and write critical analyses on the historical value of films presented in the course.

**Modern World History II***  
* (Open to students in grades 11 and 12)  
History 341  
Spring  
Credit: .5  
This course begins with a focus on 19th century industrialization, nationalism and imperialism and explores how these developments related to attitudes, values and beliefs in European culture and society. Students then evaluate how modernization and westernization have affected regions of the world outside Europe. Through an in-depth study of the Congo Free State, students will learn about the brutal mistreatment of the local peoples and the plunder of natural resources under Leopold II’s administration, as well as the international response and the legacies of western intervention in the Democratic Republic of Congo. We will examine the cause and consequences of World War I, the Russian Revolution, World War II, and the Cold War. Working collaboratively, students will research the challenges facing megacities in the developing world and propose solutions which are economically feasible, culturally sensitive and environmentally sustainable.

**Texts:** R.R. Palmer, Joel Colton and Lloyd Kramer, *A History of the Modern World*  
Dennis Sherman, *Western Civilization: Source, Images, and Interpretations*  
**Note:** Modern World History II can be taken alone or in conjunction with Modern World History I.

**International Relations***  
* (Open to students in grades 11 and 12)  
History 348  
Spring  
Credit: .5  
As the pace of globalization increases, it is critical that Americans understand how the world’s nations interact. In this course we will think analytically about the role of power, diplomacy and international law in shaping world politics. We begin with an overview and evaluation of the major international systems that have existed in the world since the 17th century and the onset of globalization. We then examine several case studies so we can better understand recent trends in
International Relations (IR) and make informed predictions about the future of international law as a force for peace and stability in the world.

This course culminates in a Model United Nations (MUN) simulation at the United Nations for which we will write policy statements and resolutions, lobby for signatories, deliver speeches, and engage in formal debate.

Text:

Food: History, Culture, Science, and Politics*
*Open to students in grades 11 and 12*

Food plays an integral role in our daily lives, from the nutrition and calories that sustain our bodies, to the traditions and cultures of food that engage our minds. Hamburgers in America, polenta in Italy, fu-fu in Ghana, and coffee in Venezuela conjure up different historical, biological, cultural, and political processes that we often take for granted. From coffee’s role in imperialism, to fast-food labor practices, to biotechnology for monopolizing agricultural commodities, this course will examine our current food system as well as the many critiques of it. We will examine four different disciplinary perspectives: 1) history – the links between past food systems and our current industrial food system; 2) culture – food as an outgrowth of how humans envision themselves and others; 3) the environment – the biological causes and consequences of why and what we eat; and 4) politics – the policies, regulations, and laws that govern food production, distribution, and consumption.

These four approaches will give us insight into contemporary issues revolving around food such as the current “obesity epidemic” in the United States; the possibilities and problems associated with genetically modified food, organic food, and industrial food; or how cultural biases around food can influence national food policy. Because food is both material and cultural, this course encourages students to cross the science/humanities divide.

Text: TBD

History of the Modern Middle East*
*Open to students in grades 11 and 12*

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

Resort to Arms: Comparative Revolutions* (Open to students in grades 11 and 12)
History 354 Spring Credits: .5
“The people are absolved from obedience when illegal attempts are made upon their liberties or properties, and may oppose the unlawful violence of those who were their magistrates.” With these words, John Locke justified the English Revolution of 1688 and provided philosophical justification for subsequent revolutions. Resort to Arms: Comparative Revolutions will analyze the causes, ideologies, personalities, and results of several of history’s more significant revolutions. Through a study of revolutionary movements in Europe, the Americas, Asia, and Africa, students will identify common characteristics and seek to understand why people take up arms against governments and the forces that shape the direction and outcomes of revolutionary struggle.

Throughout the semester, students will study social banditry, the making of a revolutionary, the role of class conflict in revolution, peasant insurrections, guerrilla warfare, and recognizable patterns in periods of revolutions.

Advanced Placement European History*
History 382 Year Class meetings: 5 Credit: 1
The Advanced Placement course in European history is designed to foster a considerable depth of knowledge about events, people and movements since 1450 and to stress the ability to speak and write persuasively about historical developments. Each student in this course is expected to take the AP exam in May.

Prerequisites: See requirements for AP history courses (below).

Advanced Placement American Government (Open to students in grades 11 and 12)
History 372 Year Credit: 1
This course is designed to prepare students for the Advanced Placement test in American government and is intended to be the equivalent of a first year college level offering. Topics of study include the Constitution; civil liberties; the role of the federal and state governments in policy making; interest groups; and political parties. Students discuss and debate issues which are critical to our nation. Each student in this course is expected to take the AP exam in May.

Prerequisites: See requirements for AP history courses (below).

Note: Students who meet the prerequisites as outlined on page 4 of the Curriculum Guide will be recommended for AP History courses by their history instructors in conjunction with the History Department Head.

Courses Offered 2014-2015
Economics* (Open to students in grades 11 and 12)
History 346 Credit: .5
This course is intended to introduce students to key economic concepts and theories through the study of economic history and current economic events. Given the turmoil that has, at times, come to dominate our economic system over the past few years, it is perhaps more important than at any time in recent history for Americans to develop a strong understanding of the way our global
economy functions. As such, we will approach this class as an opportunity to grapple with the reasons for the recent economic turbulence and the impact that these events have had on nations, groups, and individuals. Open to students in grades 11 and 12.

**Text:** TBD

**Genocide in the Modern World: Facing History and Ourselves***
*(Open to students in grades 11 and 12)*

**History 343**

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

**Texts:** *Facing History and Ourselves: Holocaust and Human Behavior,* by Margaret Stern Strom and William S. Parsons, *Crimes Against Humanity and Civilization: The Genocide of the Armenian,* by FHAO, and additional texts TBD

**Cultural Anthropology***
*(Open to students in grades 11 and 12)*

**History 347**

Anthropology is a discipline that includes a wide range of subject matter – from tribal societies in Africa to “modern” communities in the United States. This course will focus on human beings as social beings; specifically, it will examine the forms of social organization and cultural practice that humans create. While students will be asked to analyze the cultural differences of various societies throughout the world, they also will be asked to consider thematic similarities among these societies. Since this course will be an introduction to anthropology for many students, it will begin with an investigation of anthropological methodology and a discussion of anthropology’s historical roots in colonialism. The remainder of the course will focus on anthropological themes such as ritual, kinship, belief systems, political structures, artistic expression, and gender and social organization. Open to students in grades 11 and 12.

**Text:** *Cultural Anthropology,* by Conrad Phillip Kottak; Supplemental Texts TBD

**Mathematics**

**Department Head: Lizabeth Joseph**

The majority of Upper School students enroll in a math course all four years. 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 analytical 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.
Students will have the opportunity to develop the analytical skills necessary to work confidently and independently as they apply mathematics to real world situations. Students will also practice writing and articulating their understanding of mathematical concepts.

The mathematics department is committed to using an array of resources, including working with teachers outside of class and peer tutoring, to support student success in mathematics. Students will graduate from Packer with a deep appreciation for mathematics as a science, a language, and a tool that can be used to solve real-life problems. In addition, they will be fully prepared to enroll in math courses offered in any four-year institution of higher learning.

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**
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.

Students in advanced classes are also expected to independently tackle challenging problems that extend the lessons.

Students wishing to move from a standard level class into an advanced class the following year must:
- Earn an A in the standard course
- Consistently demonstrate the attributes listed in AP and Advanced Courses criteria (p. 4)
- demonstrate mastery of pre-requisite content that may not have been covered in the standard section
- Obtain permission from the department head

Students who wish to advance a year in their mathematics studies through summer study must have prior approval from the department head and submit a detailed syllabus of the course in which they intend to enroll for pre-approval. The course must align with Packer’s syllabus, which is available from the department head.

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

**Note:** An asterisk (*) indicates that the topic is covered in the advanced section but not in the standard section.
Algebra I  
**Math 410**  
**Year**  
**Credit: 1**

This is a foundation course in the principles of algebra. Topics include properties of real numbers, algebraic expressions, linear equations and inequalities, algebraic solutions to problems expressed verbally, function vocabulary and notation, graphs of functions, linear functions and applications, polynomial expressions and factorable polynomial equations, graphs of quadratic functions, radical and rational expressions and equations, introductory probability and single variable statistical analysis. Students use graphing calculators extensively in this course.

Because algebra is the foundation of all higher level mathematics, Packer requires students to earn a C or higher in this gateway course.

A student who receives a grade of C- or lower in Algebra will be required to complete a summer school course to strengthen his or her mastery of the material prior to enrolling in a geometry course. Upon completion of summer work, the student will be required to complete an exam intended to assess his or her achievement.

Geometry  
**Math 422**  
**Year**  
**Credit: 1**

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

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

**Prerequisites:** Grade of C or higher in Upper School Algebra I (Math 410) or a grade of B or higher in 8th grade Algebra I.

Geometry Advanced  
**Math 420**  
**Year**  
**Credit: 1**

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

**Prerequisites:**
- consistent demonstration of attributes of students successful in AP and Accelerated Course Criteria (p. 4)
- permission of the department head
- grade of B or higher in 8th Algebra I A (eighth-grade Algebra)
Algebra II
Math 432
Year Credit: 1
This is a standard Algebra II course which strengthens and reinforces students’ algebraic skills through the study of intermediate algebraic concepts and provides a rigorous study of functions. Topics include linear and absolute value equations and inequalities; polynomial, radical and rational expressions and equations; linear and quadratic functions; common parent graphs and their transformations; operations, compositions and inverses of functions; exponential and logarithmic functions; and intermediate statistics including the standard deviation and the normal distribution. Students use the graphing calculator extensively throughout the course.

Prerequisites: Grade of C- or higher in Geometry (Math 422).

Algebra II Advanced
Math 430
Year Credit: 1
This is a fast-paced Algebra II and Trigonometry course which strengthens and reinforces algebraic skills through the study of intermediate algebraic concepts and provides a rigorous study of functions and trigonometry. Topics include linear and absolute value equations and inequalities; polynomial, radical and rational expressions and equations; linear and quadratic functions; common parent graphs and their transformations; operations, compositions and inverses of functions; exponential and logarithmic functions; unit circle trigonometry*, trigonometric functions*, and trigonometric identities and equations*; and intermediate statistics including the standard deviation and the normal distribution.

Students use the graphing calculator extensively throughout the course.

Prerequisites:

- consistent demonstration of attributes of students successful in AP and Accelerated Course Criteria (p. 4)
- permission of the department head
- grade of B or higher in Geometry A (Math 420) OR grades of A in Geometry (Math 422) and A- or higher in Algebra (Math 410) or eighth grade Algebra I A.

Algebra II/Precalculus Advanced
Math 435
Year Credit: 1
This fast-paced accelerated math course covers half of Algebra II and all of Precalculus, preparing students for AP Calculus BC for the following year. Topics include functions and their transformations, applications of quadratic functions, matrices, unit circle trigonometry, polynomial, rational, exponential, logarithmic and trigonometric functions, triangle trigonometry, trigonometric identities and equations, intermediate probability and statistics, polar coordinates and equations, conic sections, vectors, sequences and series, and an introduction to limits. Because of the fast nature of this course, there will be no review of previously learned material. Students must demonstrate mastery of some Algebra II topics by completing a summer assignment covering the following topics: solving linear and absolute value equations and inequalities, solving systems of equations, solving one and two-variable word problems algebraically, working with polynomial, rational and radical expressions and equations.
Students will use the graphing calculator extensively throughout the course.

**Prerequisites:**
- A or A- in 8th grade Algebra I A Plus and an A in Geometry Advanced, and
- permission of the department head, and
- independent summer work to demonstrate mastery of prerequisite Algebra II topics

**Precalculus**  
**Math 445**  
**Year**  
This is a standard precalculus course which builds on the skills acquired in Algebra II, strengthening and reinforcing students’ facility with functions. Students will engage in rigorous study of trigonometry as well as several topics traditionally included in a fourth-year college preparatory math class. Topics include unit circle trigonometry, graphs of trigonometric functions, trigonometric equations and identities, matrices, polynomial functions, rational functions, additional work with exponential and logarithmic functions, intermediate probability, conic sections, sequences and series, and an introduction to limits.

**Prerequisites:** Grade of B- or higher in Algebra II (Math 432) and permission of the department head.

**Precalculus Advanced**  
**Math 448**  
**Year**  
This is a fast-paced precalculus course which builds on the skills acquired in Algebra II Advanced, strengthening and reinforcing students’ facility with functions. Students will engage in rigorous study of several topics traditionally included in a fourth-year college preparatory math class.

Topics include matrices, polynomial functions, rational functions, additional work with exponential, logarithmic and trigonometric functions, intermediate probability, polar coordinates and equations*, conic sections, vectors*, sequences and series, and an introduction to limits.

**Prerequisites:**
- consistent demonstration of attributes of students successful in AP and Advanced Course Criteria (p. 4)
- permission of the department head
- grade of B or higher in Algebra II Advanced (Math 430) OR grade of A in Algebra II, AND demonstration of mastery with trigonometry (not covered in standard Algebra II course)

**Advanced Placement Statistics**  
**Math 442**  
**Year**  
This course is approximately equivalent in content to one semester of a college statistics course, although topics are covered more deeply as it is geared towards advanced math students. The purpose of this course is to introduce students to four different concepts in statistics: data exploration and analysis, sampling and experimentation, probability and simulation, and statistical inference.
Assessments will include projects and open-ended problem sets which will require that students read and write extensively. This course prepares students for the AP Statistics examination.

**Prerequisites:**
- consistent demonstration of attributes of students successful in AP and Advanced Course Criteria (p. 4)
- permission of the department head
- grade of A- or higher in Algebra II A (Math 430) OR grade of B- or higher in Precalculus Advanced (Math 448) OR grade of B+ or higher in Precalculus (Math 445)

**Advanced Math Applications S1**

**Math 490**

**Fall**

**Credit: .5**

This math course covers several topics typically taught in a college freshmen level discrete, finite or introduction to college math class. Topics include Polya's problem solving techniques, set theory, logic, number theory, combinatorics and intermediate probability including the Binomial Theorem. Throughout the course students hone their problem solving skills, engage in hands-on lessons, and complete several applied mathematics projects.

**Prerequisites:** Grade of C- or higher in Algebra II (Math 432).

**Advanced Math Applications S2**

**Math 491**

**Spring**

**Credit: .5**

This math course covers several topics typically taught in a college freshmen level discrete, finite or introduction to college math class. Topics include the development of number systems, network theory, three-dimensional geometry including a study of Platonic solids, applications of triangle trigonometry and voting and apportionment methods. Throughout the course students hone their problem solving skills, engage in hands-on lessons, and complete several applied mathematics projects.

**Prerequisites:** Grade of C- or higher in Algebra II (Math 432).

**Calculus**

**Math 480**

**Year**

**Credit: 1**

This is a standard calculus course which covers approximately one semester of college-level calculus. Primary topics of study include functions, limits, continuity, derivatives, applications of the derivative, and an introduction to integration. Students spend some time reviewing precalculus material to reinforce their understanding of functions prior to studying calculus topics. At the completion of this course students will be prepared to successfully complete their first year of college calculus.

**Prerequisites:**
- Calculus is considered an advanced course. As such, the following prerequisites apply:
  - consistent demonstration of attributes of students successful in AP and Advanced Course Criteria (p.4)
  - permission of the department head
  - strong algebra skills
  - grade of B+ or higher in Precalculus (Math 445) OR a grade of C or higher in Precalculus Advanced (Math 448).
AP Calculus AB
Math 481
This course is approximately equivalent to a rigorous one semester college-level calculus course. Students spend less time reviewing precalculus material and study more topics at a greater depth than students in the standard calculus class. Topics include limits, derivatives, applications of the derivative, integrals, applications of the integral and an introduction to differential equations and slope fields. Students prepare for the AP Calculus AB examination in May. Students who score a 4 or 5 on the AP exam are usually awarded one semester of college credit.

Prerequisites:
- consistent demonstration of attributes of students successful in AP and Advanced Course Criteria (p. 4), and
- permission of the department head, and
- grade of B or higher in Precalculus Advanced (Math 448)

AP Calculus BC
Math 483
This course is approximately equivalent to two semesters of college-level calculus. The class moves much more quickly than AP Calculus AB and covers additional topics. Topics include limits, derivatives, applications of the derivative, integrals, applications of the integral, integration by parts, an introduction to differential equations and slope fields, sequences and series, and Taylor and Maclaurin series and polynomials. Students prepare for the AP Calculus BC examination in May. Students who score a 4 or 5 on the AP exam are usually awarded two semesters of college credit.

Prerequisites: Grade of A or higher in Precalculus Advanced (Math 448) and permission of the department head.

Multivariable Calculus
Math 485
This course includes a variety of advanced mathematics topics, including functions of several variables, non-rectangular coordinate systems, vector-valued functions, and differential and integral calculus of several variables.

The course is designed around challenging problem sets and requires strong communication skills.

Prerequisites: Grade of A- or higher in AP Calculus BC (Math 483) or permission of the department head.

Science

Department Head: C. N. Williams

The science department promotes a curriculum that is designed to provide the information 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, rather the conceptual depth of understanding reached.

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

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

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

Students earning a B+ average or better in AP Chemistry, AP Physics or AP Biology should consider taking the respective SAT II test in June. PLEASE NOTE: It is Packer policy that students in AP classes are allowed to use ONLY those accommodations formally approved by the College Board.

**Physics**

**Science 500**

<table>
<thead>
<tr>
<th>Year</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

Physics can be used to answer questions such as why the sky can be such a beautiful blue (on Earth) or why sunsets are red; why a bullet fired horizontally from a gun and one dropped at the same instant from the same height hit the floor at exactly the same time, regardless of how far the bullet travels horizontally; why time is a relative term; why waves on a beach are always parallel to the beach (regardless of which side of the island you may be on); how electricity can be made with a piece of wire and a magnet; what causes mass (a seemingly simple question, though an as yet unsolved problem), and many other questions concerning matter and energy in our universe. Indeed, where does the energy come from that turns on that light?

Physics applies to absolutely everything in the natural world, and it allows us to predict the outcome of a given scenario.

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

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

**Text:** No text required

**Advanced Physics**

**Science 505**

<table>
<thead>
<tr>
<th>Year</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

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

The emphasis will be on establishing a strong conceptual understanding of the physics topics mentioned above and examining how mathematical equations can describe the world around us and quantify the physical world. These topics will be explored through discussion, problem solving, and laboratory investigations.

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

Text: No text required

Prerequisite: A- average and 1 effort grade average in 8th grade science at Packer and approval by the relevant science and math teacher. For students new to Packer in the 9th grade, placement in this course will be based on performance in their 8th grade science courses and a skill survey sent to their 8th grade science teachers.

AP Physics B Science 586 Year Class meetings: 7 Credit: 1
This course is designed to be the equivalent of a college-level introductory physics course and builds upon the foundations received in 9th grade physics. Topics include: motion in one- and two- dimensions, forces, circular motion and rotation, simple harmonic motion, waves, geometric optics, thermodynamics, electrostatics, conductors and capacitors, magnetic fields, electromagnetism, fluids, thermodynamics and atomic physics. Numerous quantitative experiments are conducted throughout the year to show application of concepts and expand understanding, some of these using probes and computers. Strong emphasis is placed on solving a variety of challenging problems, as well as continuing to develop a deep understanding of physics concepts.

After completing this course, students will be required to sit for the Advanced Placement Physics B examination in May.


Prerequisites: Physics or Advanced Physics and the approval of the relevant science teacher. This course is open to juniors and seniors with a B+ average in advanced chemistry or an A- average in chemistry and equivalent math grades; completion or concurrent enrollment in pre-calculus, and the recommendation of the relevant science teacher.

Chemistry Science 510 Year Credit: 1
This introductory course emphasizes the development of problem-solving skills through a study of matter. All major topics in physical chemistry are introduced in this course, including models of atomic and molecular structure; states of matter; the chemical and physical behavior of elements and compounds; solutions; nuclear chemistry; and equilibrium. Laboratory investigations stress the importance of quantitative analysis and experimental error.
Some emphasis is given to relating chemistry to current developments in science and its importance in environmental issues. **This course is open to all 10th grade students, regardless of their math level.**

**Text:** Stacey, A. *Living By Chemistry*, 1st edition, 2010  
**Prerequisite:** 9th grade Physics

### Advanced Chemistry  
**Science 512  
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.

**Prerequisite:** A- average in both Advanced Physics and 9th grade math course and by approval of the relevant teacher or by approval from the department head.

### Advanced Topics in Chemistry  
**Science 542  
Fall**  
Credit: .5

This one semester course is designed to be an extension of the 10th grade Advanced Chemistry course and will address such topics as equilibrium, acid-base chemistry, kinetics, oxidation-reduction, and an introduction to organic compounds at a pre-AP level. By exploring areas of chemistry that are currently beyond the scope of the introductory course, students will build on their understanding of atomic interactions and chemical phenomena as well as their analytical, experimental, and problem-solving skills developed in the 10th grade curriculum. With the appropriate review book and test preparation, students who complete this course will be well-prepared to sit for the SAT II in Chemistry.

This course is open to 11th students who have demonstrated mastery of the 10th grade chemistry curriculum through a grade of B+ or higher in Advanced Chemistry or an A in Chemistry and have been approved by the relevant teacher.  

12th grade students who meet the prerequisite are also eligible for the course, but preference will be given to 11th graders.

**Prerequisite:** B+ average in Advanced Chemistry, A average in Chemistry or by approval from department head

### Topics in Organic Chemistry  
**Science 544  
Spring**  
Credit: .5

This one semester course will provide an introduction to organic chemistry and will focus on a series of representative organic molecules that are of current and/or historical interest. Many organic compounds are discussed frequently in the public sphere, but how much does the average person know about their chemical structures, properties and reactivity?
What do they look like? What do they do? How do we decide if they are “safe?” Students will learn to tackle these questions with informed chemical understanding and will explore the relationship between chemistry and politics/public opinion.


**Prerequisites:** B+ or higher in Chemistry or Quantitative/Advanced Chemistry and completion or concurrent registration in biology

**Advanced Placement Chemistry**

<table>
<thead>
<tr>
<th>Science 580</th>
<th>Year</th>
<th>Class meetings: 7</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

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? What does the catalytic converter in your car do? 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 AP 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.


**Prerequisite:** Students enrolled in AP Chemistry must have successfully completed either Advanced Chemistry with at least a B+ average or Chemistry with an A- average. Students must also either be currently enrolled or have completed Algebra II while maintaining a B average in their math courses and be recommended by the relevant science teacher. Students enrolled in AP Chemistry will sit for the AP Chemistry Exam.

**Biology**

<table>
<thead>
<tr>
<th>Science 520</th>
<th>Year</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

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


**Prerequisite:** courses in physics and chemistry

**Advanced Placement Biology**

<table>
<thead>
<tr>
<th>Science 582</th>
<th>Year</th>
<th>Class meetings: 7</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

This course is designed to be the equivalent of a college-level introductory biology course. It aims to provide students with the conceptual framework, factual knowledge, and analytical skills
necessary to deal critically with the rapidly changing science of biology. Topics include: the principles of biological chemistry; cytology; cellular energy transformations; heredity; molecular genetics; evolution; ecology; taxonomy and systematics; and the anatomy, physiology, and development of plants and animals. 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. After completing this course, students will be prepared for the Advanced Placement Biology examination in May.

Prerequisites: Physics or Advanced Physics; Chemistry or Advanced Chemistry; and Biology.

This course is open to students with a B+ average in biology and a B in advanced chemistry, or a B+ in chemistry, or the permission of the department head.

Anatomy and Physiology
Science 553 Spring Credit: .5
Do you yearn to learn how the body works? Or why people who have heart bypass surgery have a large incision in their leg? Do you know why your feet swell in a theater or on an airplane when you take your shoes off? Why your rings get loose during winter? Why people run a fever? Why pregnant women waddle for the last few weeks? Ever wonder what an EKG, EEG, MRI, or CAT scan meant? Or what the difference is between an aneurism and an embolism?

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

Students should be aware that lab exercises will include a dissection of a fetal pig when all of the systems have been studied; since this is an elective and not a required course, this activity is not optional.

Note: This course will enhance your preparation for the SAT II in biology, if you intend to take it. Both the E and M forms of the test include human systems.

Text: There is no required text. Selected readings will be handed out in class.
Prerequisite Completion or concurrent enrollment in Biology or AP Biology

Scientific and Historical Origins of Race and Gender
Science/History 540 Fall Credit: .5
The course will begin with an overview of human evolution, so students have a biological understanding of the evolutionary ideas that have influenced society. This will include fossil comparisons and DNA analysis. Students will then study the emergence of Darwinism as a scientific theory, including the socio-cultural context in which Darwin was conducting his research and developing his ideas. In addition to looking at the scientific debates prevalent at the time, students will investigate the influence of biological theories on the anthropological school of Evolutionism and its studies of culture. We will move into an exploration of how these theories influenced society and shaped governmental policies in the late 1800’s through the mid-1900’s – policies that have resulted in the oppression of communities in the US and Europe.

Our historical studies will include, but not be limited to, slavery, gender discrimination, imperialism and colonialism, the Eugenics Movement, and Nazism.
Students will investigate the science behind these policies, looking at the realities of human genetics and the flawed methodology used to conduct scientific studies of race at the time. They also will research the historical context for these studies and reasons why American and European societies were receptive to these discriminatory ideas. The course will end in the contemporary US and Europe, with an examination of current instances of injustice and discrimination and debates around recent scientific studies.

**Text:** There is no required text. Selected readings will be handed out in class. This course can be selected as a .5 credit course for either science or history.

**Prerequisite:** Biology.

**Introduction to Independent Science Research**

**Science 506**  
Year:  
Class meetings: 2  
Credit: 1

Open to students entering the 10th grade, Introduction to Independent Science Research will provide a rich experience in the physical sciences, leading to an authentic research experience working in a laboratory with a scientist in the summer. This course is ideal for students that have a strong interest in science and are motivated, independent learners.

The course is quite different to other courses in science as it is designed to be multi-year, such that the student’s research will get more and more detailed each year. In addition, the majority of the work is carried out independently with individual conferences every other week with the teacher to discuss progress. In order to prepare students for their summer experience, the 10th grade course will include exposure to the body of science research literature and the discussions taking place in the larger scientific community. Students will read and analyze journal articles, attend occasional evening and weekend science lectures and meet local scientists both at the school and in their labs.

Students will gain experience presenting their research at a presentation and poster session in the spring which will be attended by parents, invited scientists and school administrators. Students completing 90 hours of summer research will receive college credit from SUNY Albany.

**Text:** There is no required text.

**Prerequisite:** Completion of 9th grade physics and a strong interest in science and developing science research and independent learning skills.

**Intermediate Independent Science Research**

**Science 507**  
Year:  
Class Meetings: 2  
Credits: 1

This intermediate science research course is open to those students who have successfully completed the introductory course and will be a continuation of each student's work in his/her field of independent research. Students will continue working with both the course teacher and their individual mentors to advance their understanding of their chosen topic. Students will be encouraged to enter at least one science competition and continue their independent research with their outside mentor.
Students will receive college credit from SUNY Albany for both their research during the school year and also during the summer.

**Text:** There is no required text.

**Prerequisite:** Successful completion of Introduction to Independent Science Research and completion of a minimum of 90 hours of summer research.

### Astronomy and Geophysics

**Science 554**

**Fall**

**Credit .5**

This elective offers a survey of earth and 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 own 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. The earth itself is presented as a dynamic system, with plate tectonic theory explaining volcanism, seismic activity, and laying the fundamentals of mineralogy. This elective includes lab-work, sessions of evening stargazing, reading assignments, and a research project.


**Pre-Requisite:** B+ Average in Science.

### Nuclear Physics

**Science 555**

**Spring**

**Credit .5**

This elective offers a survey of nuclear 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 nuclear theory. 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.


**Pre-Requisite:** B+ Average in Science.

### Arts

**Department Head: Debbie Pressman**

The mission of the arts department is to offer a range of opportunities that will foster the development of each student’s creative and artistic voice. The education process in these art courses fuses theory and concept with students’ expressive lives, and offers them the practical
tools to give form to their experience. Using both traditional and innovative techniques, the arts faculty encourages students to be risk-takers and creative problem solvers, and to appreciate the rigors of disciplined craft and the development of skills over time. The program includes two inter-related methodologies, which occur simultaneously: the formal studio/class experience within the curriculum, and the co-curricular experience, represented by performances and visual art displays, both within and beyond Packer’s walls. Co-curricular experiences include the annual Packer Dance Concert, Upper School speciality trips to Europe, fall play, Renaissance Evening, and spring musical.

**FreshArts Arts 610**

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

**Dance Fundamentals** involves structured work in technique, composition, and improvisation. Its primary focus is on expanding students’ movement vocabulary and introducing them to basic compositional elements. Extensive use of William Forsythe’s Improvisational Technologies (a video/CD-ROM textbook) is the basis of the work done in the second semester. This video textbook gives students a working vocabulary from which dance can be analyzed and used for movement invention. A final choreographic project is performed at the end of each quarter.

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

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

**Theater Introduction** gives students the opportunity to work as an ensemble. Through voice and movement work, improvisation, and group performance exercises that are designed to free emotional spontaneity and to encourage creativity, the ensemble explores various aspects of the craft.

Students are assigned contemporary monologues and/or scenes and have the opportunity to explore text and develop confidence in their performance skills.

**Visual Arts** explores both observational and imaginative concepts in the visual arts. Students work with a variety of materials in a wide range of techniques, including drawing, painting, printmaking, sculpture, and mixed media. In addition to skill building experiences the visual arts
course looks at large autobiographical topics, like the school around us, home, and the city in which we live.

**Intermediate Dance**

*This course is open to students in grades ten through twelve and fulfills either arts or physical education requirements.*

<table>
<thead>
<tr>
<th>Arts 625/PE 725</th>
<th>Year</th>
<th>Class meetings: 3</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

The focus of this class is to prepare students in the art of choreography, providing them with the tools needed to succeed at the advanced level. Principles of composition, choreography, and development of technique and performance skills are covered throughout the year. During the first semester, students learn and rehearse a new dance work to perform in the dance concert; in the spring, an intensive choreography workshop allows each student to create and direct a dance for his or her own ensemble of dancers. Papers are not assigned in this class, but discussions on dance criticism and a reflective essay on a dance experience outside of Packer are included in this course.

**Prerequisite:** Arts 610 or permission of the instructor.

**Advanced Dance**

*This course is open to students in grades eleven and twelve and fulfills either arts or physical education requirements.*

<table>
<thead>
<tr>
<th>Arts 635/PE 735</th>
<th>Year</th>
<th>Class meetings: 3</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

This course offers an opportunity to study advanced and diverse techniques, composition, choreography, improvisation, contact work, and dance criticism. A major focus of the first semester is the required participation as a choreographer in the dance concert, which requires time outside of class. While choreography is the most obvious element of this task, students learn about costume design, lighting, leadership, and concert production. Second semester will provide the opportunity for further choreographic development with site specific creations. In addition, students are required to develop and teach a lesson plan to the rest of the class. Throughout the year there is one paper, 15 hours of service work in dance/arts, and individual conferences with the teacher.

**Prerequisite:** Arts 625 (Intermediate Dance).

**Packer Chorus**

*Open to students in grades nine through twelve*

<table>
<thead>
<tr>
<th>Arts 651</th>
<th>Year</th>
<th>Class meetings: 3</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

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.
Select Choir
Open to students in grades eleven and twelve only
Arts 650 Year Class meetings: 3 Credit 1
The Select Choir is an advanced musical ensemble that sings all kinds of music, from classical to jazz, in English and World Languages. The Select Choir tours internationally in alternate academic years. The rehearsal process focuses on how to blend and how to listen to each other while developing note-reading and sight-singing skills. Healthy tone production, performance etiquette and teamwork are of primary importance and students are expected to work diligently to prepare for concerts, as well as other school events.

One of our goals is to create a musical language that allows us to perform diverse choral music with beauty, integrity and rhythmic precision.

Note: 2013-14 school-year is a touring chorus year. Students who are registered in this chorus are required to participate in the chorus tour. All other details will come soon in the fall of 2013.

Prerequisite: Minimum requirement is one year experience in an organized vocal ensemble and instructor’s approval.

Select Choir Apprentice Program
Arts 659 Year Class meetings: 1 Credit: .25
This program is open to 10th grade students who are passionate about singing, demonstrate a determination to pursue a higher skill level in music and have a high expectation of their own performance. Applicants must be self-motivated in order to reach a more advanced skills development in music learning, vocal techniques, and performance techniques. While applicants craft their independence and self-confidence through this program, they are expected to take a leadership position in the Packer Chorus throughout their sophomore year and expected to join Select Choir in 11th grade.

Prerequisites: Permission of the instructor. At least one year of musical experience in any organized music ensembles or choirs inside or outside of school.

The Packer Orchestra
Open to eligible instrumentalists in grades nine through twelve
Arts 653 Year Class meetings: 3 Credit 1
The Upper School Orchestra meets three times a week and performs four times throughout the school year. Each enrolled student is responsible for preparation of music and any related activity. 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.
As an extension of the skills developed in MS orchestra, attention is paid to working out finger placements, bowings, and other technical issues. Further focus is given on how to watch and interpret visual cues given by the conductor.
Chamber Ensemble
Open to eligible string instrumentalists in grades nine through twelve
Arts 654 Year Class meetings: 2 Credit .5
The Chamber Ensemble provides the student with a traditional small string ensemble experience, working as a collaborative group without a single leader. Students will be playing music from a wide range of eras and stylistic genres. Some selections will require collaboration with other performing ensembles such as the Select Chorus and Jazz Band. Members of the ensemble will work in tandem to arrive at musical and artistic consensuses. Participating in such a group requires additional skills such as cooperation, compromise, nonverbal communication, and a stronger knowledge of everyone else’s ensemble part. Students will work to improve intonation skills and achieve a higher level of listening while sight-reading. Additionally, as a tightly knit team, we perform more frequently and in a variety of venues.

Members of the group support each other's musicianship so that members of the ensemble could successfully perform together without outside direction.

During the spring break of 2014, as part of our curriculum, the Chamber Ensemble will travel and perform. Further details will be available in the fall of 2013.

**Prerequisite:** permission of the instructor and commitment to a minimum of 30-minutes of additional lesson time each week.

The Packer Wind Symphony
Open to eligible instrumentalists in grades nine through twelve.
Arts 655 Year Class meetings: 3 Credit: 1
The Wind Symphony meets three times weekly, and each enrolled student is responsible for preparation of music and any related activity. Additionally, students may work in music history, theory, and other areas of musical interest, especially as these studies pertain to performance works in progress. From time to time, select members may be asked to join forces with the strings in the orchestra, and within this group, there exist multiple opportunities for playing chamber music coached by Packer music faculty and/or adjuncts.

Lab Band
Open to students in grades nine through twelve.
Arts 657 Year Class meetings: 2 Credit: .5
Lab Band consists of jazz and pop style performance groups for students who aspire to the jazz band. Lab band meets regularly two times per week and additionally as warranted for each performance opportunity. Each student is responsible for preparation of music and any related activity.

As the nature of jazz allows for improvisational technique, students in Packer’s jazz band are encouraged to take an active role in soloing from given chord changes. Students are also encouraged to explore form and music theory, as improvisational work is predicated on knowledge of these formal applications.

**Prerequisite:** Permission of the instructor
Packer Jazz Band  
(Open to qualified students in grades nine through twelve)  
Arts 658 Year Class meetings: 2 Credit: .5
Steeped in jazz and pop styles, this ensemble group performs at least six times yearly: four times each year in formal concert setting, and twice in designated chapel performances. The Jazz Band meets regularly two times per week, 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.

During the spring break of 2014, as part of our curriculum, the Packer Jazz Band will travel to New Orleans, the birthplace of Jazz. This nine-day trip models a real working band’s bus tour, with performance venues en route to and from New Orleans, as well as within the city itself. There is a great deal of emphasis placed on listening to live Jazz, primarily the styles most associated with the bastion of this uniquely American art form. This will give us an unequivocal historical reference in the work we do both in class and on stage.

Prerequisite: Permission of the instructor

Music Theory: Visual, Aural, Kinesthetic Tools  
Arts 652 Fall Class meetings 4 Credit: .5
This course includes music syntax, key signatures, and clefs and will progress to two (or four) part vocal writing, basic counterpoint and music analysis. There is no prerequisite for this course; however, students must be invested in the mechanics of music, specifically the musical score. This class is for all musical enthusiasts and will include dictation, sight-reading and formal listening analysis. This semester class will focus on music theory using visual, aural, and kinesthetic tools.

Music Theory: Improvisation, Playing and Composing  
Arts 656 Spring Class meetings 4 Credit: .5
This course includes music syntax, key signatures, and clefs and will progress to two (or four) part vocal writing, basic counterpoint and music analysis. There is no prerequisite for this course; however, students must be invested in the mechanics of music, specifically the musical score. This class is for all musical enthusiasts and will include dictation, sight-reading and formal listening analysis. This semester we experience music theory through improvisation, playing, and composing music.

Actors’ Studio  
Open to students in grades ten through twelve  
Arts 627 Year Class meetings 4 Credit: 1
It's easy to imitate a character or even an emotion, but where's the honesty in that? How can you sustain or repeat what you might have found intuitively? Do you even know what you did or how you did it? How do you know what choices to make? Acting technique is of principal importance to anyone wanting to be a strong actor. Using a variety of text, but with a focus on classical material, students develop skills using an array of acting techniques.
There is an emphasis on interpreting text and analyzing character, and students will be expected to work toward performance of scenes or monologues. The course will include practical experience in movement, basic physical relationships, and ways in which the body can be used to heighten communication. During spring break of 2014, students in this course may participate in the Theatre trip to London.

**WILL POWER: Shakespeare Page to Stage:**

**WOMEN UNDER COVER**

**Arts 629**

Fall  

Class meetings 4  

Credit: .5

This course offers in depth work on Shakespeare that will not only support an exploration into the playwright's literary devices and the structure of his language but also give you a better understanding of the acting skills necessary to accurately portray character. Discovering how to make text-supported choices as a player fosters an honest expression of human emotion. Shakespeare's characters struggle with the same things we struggle with: money, land, power and relationships. Exploring these struggles; the character's hopes and fears, their passions and flaws, significantly strengthens one's ability to understand these plays and serve as a foundation for strong acting choices. Men playing women playing men – ah, the possibilities! Viola in *Twelfth Night*, Rosalind in *As You Like It* and Portia in *The Merchant of Venice* all adopt disguises to pass themselves off as men. This act of rebellion, or preservation, frees them from the constraints of their traditional role in society and gives them the freedom to act without the sexism of their day. Love, gender, sexual identity and homoeroticism, lies, deceit and justice - and that's before we explore the power of Shylock.

- **Twelfth Night** (1599-1600)
  A skillful use of mistaken identity
- **As You Like It** (1599-1600)
  One of Shakespeare's greatest comedies and his most inspiring heroine
- **The Merchant of Venice** (1596-1597)
  The quality of mercy and the character of Shylock

During spring break of 2014, students in this course may participate in the Theatre trip to London.

**WILL POWER: Shakespeare Page to Stage**

**THE ART OF BETRAYAL AND THE CRAFT OF POWER**

**Arts 630**

Spring  

Class meetings 4  

Credit: .5

This course offers in depth work on Shakespeare that will not only support an exploration into the playwright's literary devices and the structure of his language but also give you a better understanding of the acting skills necessary to accurately portray character. Discovering how to make text-supported choices as a player fosters an honest expression of human emotion. Shakespeare's characters struggle with the same things we struggle with: money, land, power and relationships. Exploring these struggles; the character's hopes and fears, their passions and flaws, significantly strengthens one's ability to understand these plays and serve as a foundation for strong acting choices. While groundlings liked a good comedy, they consistently packed the playhouses to see the newest foray into treachery and murder. Shakespeare creates worlds where thoughtful, caring men commit horrific crimes in the name of patriotism and honor. These masterpieces of betrayal and power also demonstrate the loneliness and exile of kingship in *Richard II*, isolation of race felt by the Moor in *Othello*, and manipulation at it's best, eliminating a potential tyrant, in *Julius Caesar*. 
With a female perspective that is almost silent, two assassinations and a suicide... it doesn't get more dramatic than this.

- **Othello** (1604-1605)
  The Moor falls prey to the devious schemes of his false friend

- **Julius Caesar** (1599-1600)
  A sharp study of political life in ancient Rome

- **Richard II** (1595-1596)
  A struggle for power

During spring break of 2014, students in this course may participate in the Theatre trip to London.

**Photography: Method and Concept**

*Open to students in grades ten through twelve*

**Arts 622**  
**Year** Class meetings 4  
Credit: 1

This course is designed to cultivate and enrich the act of seeing, as well as to develop through photography a particular mode of visual thinking. The principal means are picture-taking with both film and digital cameras and working in the darkroom to learn the traditional methods of making photographic prints. Students 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.

**Prerequisite:** Arts 610 or permission of instructor.

**Digital Video: I**

*Open to students in grades ten through twelve*

**Arts 612**  
**Fall** Class meetings 4  
Credit: 0.5

Video storytelling is at the heart of this course designed to expose students to current and historic approaches to art making through an array of new media. A variety of projects are planned to enhance student understanding of video production and the synthesis of media that is at the core of the storytelling that shapes our world. The class will work with visiting filmmakers and artists through class visits and field trips. Students will create multimedia presentations and write a paper. 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.

**Prerequisite:** Arts 610 or permission of the instructor.

**Digital Video: II**

**Arts 615**  
**Spring** Class meetings 4  
Credit: 0.5

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

**Prerequisite:** Arts 610 or permission of the instructor

**Video Journalism**

<table>
<thead>
<tr>
<th>Arts 633/English166</th>
<th>Year</th>
<th>Class meetings</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>

This course is for budding videographers, journalists, and documentarians. Video Journalism students will learn the fundamentals of broadcast journalism and video production to create video broadcast reports on current issues of interest and concern to the Packer community. In collaboration, students will research and explore, plan, and create a quarterly video program comprised of segments about a specific topic. Theme-based units could include: environmentalism and sustainability, relationships and sexuality, gentrification and urban development, political activism and leadership, and discrimination. These “news programs” will be broadcast to the Packer community. This course is open to students in grades eleven and twelve.

**Prerequisites:** Intro or Advanced Journalism OR Digital Video (Arts 612).

**Studio Art I**

<table>
<thead>
<tr>
<th>Arts 631</th>
<th>Fall</th>
<th>Class meetings</th>
<th>Credit: .5</th>
</tr>
</thead>
</table>

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. Through the use of both traditional and new drawing mediums, such as pencil, pastel, charcoal, ink, watercolor, collage, mixed media, and computer. Printmaking techniques include etching, drypoint, Solarplate and block printing with the outcome of a small edition of prints in one of the mediums. By the end of the course, students are evaluated on their own independent project based portfolio. Weekly homework projects and several independent museum visits are required. This course is open to students in grades ten through twelve.

**Studio Art II**

Open to students in grades ten through twelve

<table>
<thead>
<tr>
<th>Arts 632</th>
<th>Spring</th>
<th>Class meetings</th>
<th>Credit: .5</th>
</tr>
</thead>
</table>

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 homework projects and several independent museum visits are required.

**Advanced Placement Studio Arts: THE DRAWING PORTFOLIO**

<table>
<thead>
<tr>
<th>Arts 681</th>
<th>Year</th>
<th>Class meetings</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

This course stands as the third year and fourth year of visual arts offerings. Students are asked to create their own project-based portfolios in response to independent assignments class projects, as well as self-started 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. For those submitting AP portfolios in drawing (including painting, mixed media, and printmaking) portfolios are comprised of two major areas; **concentration** and **breadth**. The **concentration** area allows you to develop a single compelling visual arts direction, while **breadth** requires numerous specific explorations of technical and conceptual visual arts issues. 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.

**This course is open to students in grades eleven and twelve, but generally, juniors will need two years of AP Studio Art to complete a successful portfolio by the end of their senior year.**

**Prerequisite:** Completion of a year of intermediate art or equivalent, as well as approval by the instructor and consistent demonstration of attributes of students successful in AP and Accelerated Course Criteria (p. 4).

**Advanced Placement Studio Arts: THE 2D DESIGN PORTFOLIO (with an emphasis on PHOTOGRAPHY)**
**Level 1 (junior year) and Level 2 (senior year)**
**Open to students in grades eleven and twelve**

<table>
<thead>
<tr>
<th>Arts 682</th>
<th>Year</th>
<th>Class meetings 4</th>
<th>Credit: 1</th>
</tr>
</thead>
</table>

THE 2D DESIGN PORTFOLIO can include photography and computer graphics and can also be created exclusively with photography. There is a similar focus on concentration and breadth in the Design Portfolio work. 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.

**Prerequisite:** Completion of a year of intermediate art and/or photography courses, as well as approval by the instructor and consistent demonstration of attributes of students successful in AP and Accelerated Course Criteria (p. 4).

**Advanced Placement Art History**
**Arts 683 Year Class meetings 4 Credit: 1**

In this course, we approach Art History through both academic and project-based arts experiences. The goal of the course is to achieve an understanding of art making and its history, and to connect it with oneself and one’s own views. We explore both the chronological Art History as presented by the text and experience many of the practices, techniques and ideas through projects based learning. While the course primarily focusing on Western traditions, many non-European themes are explored through specialized readings and assignments.

Students make frequent independent trips to museums to experience work firsthand, and will write at least two major term papers based on what they have seen.

**AP Art History is open to seniors only.**
**Text: Marilyn Stokstad; Art History, 4th Edition (Portable Edition of 6 books).**
Physical Education and Athletics

Physical Education Department Head: Pippa Mayell

Athletic Director: Darrin Fallick

The Physical Education program in the Upper School seeks to develop each student’s appreciation of and commitment to lifelong personal health and fitness through participation in individual and team sports. The physical education program recognizes the wide range of abilities and interests of its students and seeks to offer choice and some flexibility in order to encourage maximum participation and enjoyment.

To achieve these aims, Packer offers instruction in the following activities: volleyball, soccer, basketball, softball, floor hockey, fitness and weight training, climbing wall activities, yoga, and Tae Kwon Do.

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

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

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

Physical Education
PE 711/712 Semester Class meetings: 2 Credit: .5
Students will participate in a variety of sports and activities, including some or all of the following: soccer, floor hockey, ultimate Frisbee, basketball, volleyball, adventure activities and cooperative games, and fitness and weight training. The class aims to encourage maximum participation, to develop an appreciation and understanding of personal fitness and the importance of developing lifelong habits of physical activity.

Yoga I - Beginner
PE 713/714 Semester Class meetings: 2 Credit: .5
Yoga I is open to all Upper School students. No prior yoga experience is necessary. Yoga postures are introduced, practiced, and combined with relaxation and breathing exercises, meditation, and philosophy.

Yoga II – Intermediate/Advanced
PE 715 Semester Class meetings: 2 Credit: .5
Yoga II is appropriate for those students who have developed their Yoga practice at Packer for a year or more, or who come to Packer with significant prior experience.
Tae Kwon Do  
PE 736/737  Semester  Class meetings: 2  Credit: .5  
The aim of Tae Kwon Do is to develop mind, body, and spirit through martial arts training. As well as gaining experience and understanding of personal safety and self-defense through this course, students are given the opportunity to understand the cultural context of this discipline and other martial arts. The learning process involves the introduction of basic Korean vocabulary relevant to training techniques. As students improve as martial artists, they will progress through the standard rank system. Students are expected to practice techniques taught in class on their own time between training sessions. Assessment is based on attendance, focus, and adherence to the underlying tenets of Tae Kwon Do: respect, humility, modesty, self-control, integrity, and indomitable spirit. The class meets twice a week for the full year.

Physical Education Independent Study 2.0  
PE 696/697  Semester  Class meetings: 2  Credit: .5  
The Physical Education Department is offering 11th and 12th graders the opportunity to take an independent fitness and exercise class, incorporating technology with which students are already familiar as an integral part of the experience. After an initial introduction session, students will be required to view podcasts that provide instruction and support as students design and implement their personal fitness program. The podcasts will cover the basic components of physical fitness and anatomy, and also demonstrate proper workout technique. The students will also be required to post responses in an online discussion forum at the end of each podcast to reinforce the new information and share their experiences. The required workout sessions are to be recorded in detail in a provided journal. Sessions are to be completed twice per week and will be 45 minutes in length. **Students may take this class for one semester of PE credit per year.**

Intermediate Dance  
PE 725 /Arts 625  Year  Class meetings: 3  Credit: 1  
The focus of this class is to prepare students in the art of choreography, providing them with the tools needed to succeed at the advanced level. Principles of composition, choreography, and development of technique and performance skills are covered throughout the year. During the first semester, students learn and rehearse a new dance work to perform in the dance concert.

In the spring, an intensive choreography workshop allows each student to create and direct a dance for his or her own ensemble of dancers. Papers are not assigned in this class, but discussions on dance criticism and a reflective essay on a dance experience outside of Packer are included in this course.

**Prerequisite:** Arts 610 or permission of the instructor. **This course is open to students in grades ten through twelve and fulfills either arts or physical education requirements.**

Advanced Dance  
PE735 /Arts 635  Year  Class meetings: 3  Credit: 1  
This course offers an opportunity to study advanced and diverse techniques, composition, choreography, improvisation, contact work, and dance criticism. A major focus of the first semester is the required participation as a choreographer in the dance concert, which requires time outside of class. While choreography is the most obvious element of this task, students learn about costume design, lighting, leadership, and concert production.
Second semester will provide the opportunity for further choreographic development with site specific creations. In addition, students are required to develop and teach a lesson plan to the rest of the class. Throughout the year there is one paper, 15 hours of service work in dance/arts, and individual conferences with the teacher.

**Prerequisite:** Arts 625 (Intermediate Dance). *This course is open to students in grades eleven and twelve and fulfills either arts or physical education requirements.*

**Athletics**

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

**Fall:**
- Boy's Varsity Soccer
- Boy's JV Soccer
- Girl's Varsity Soccer
- Girl's Varsity Volleyball
- Girl's JV Volleyball
- Boy's Varsity Cross-Country
- Girl's Varsity Cross-Country

**Winter:**
- Boy's Varsity Basketball
- Boy's JV Basketball
- Girl's Varsity Basketball
- Girl's JV Basketball
- Boy's Varsity Squash
- Girls Varsity Squash
- Girl's Varsity Swim
- Boy's Varsity Swim
- Boy's Indoor Track
- Girls Indoor Track

**Spring:**
- Boy's Varsity Baseball
- Boy's JV Baseball
- Boy's Varsity Volleyball
- Girl's Varsity Softball  Boy's Varsity Track
- Girl's Varsity Track
- Boy's Varsity Tennis
- Girls 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.
Both tennis and squash are dependent upon court availability; similarly swim may depend upon pool access. Please confirm that they are going to take place at end of the first quarter with the athletic director.

<table>
<thead>
<tr>
<th></th>
<th>1st Q</th>
<th>2nd Q</th>
<th>S1</th>
<th>3rd Q</th>
<th>4th Q</th>
<th>S2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soccer</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G VB</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X-Country</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basketball</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Squash</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseball</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Softball</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B VB</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ind Track</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Track</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

**Expectations for Managers of Athletic Teams**

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

1. Complete one training session organized by the Athletic Director.

2. Complete one session in the Fitness Center per week - recorded, signed by a supervisor and handed in to the team coach. (This requirement may be fulfilled by participation in a team practice, if deemed appropriate by your coach.)

3. Attend all games during the season to fulfill duties appropriate to the team sport. Duties may include assisting with equipment, set up, score keeping, record keeping, running the clock, calling lines, writing up game and practice schedules etc.

4. Managers are exempt from PE class for the duration of the season. They must return to PE (Fall sports) or begin a PE class (Spring sports) when they are not in season. Basketball managers are exempt for the semester, due to the length of the season.

5. Managing an Athletic team may only be used for **one** semester of PE credit per year.

**NOTE:**

1. Students who are registered for a physical education class that takes place in the fall and who decide to participate in a winter team sport **must** remain in their assigned class until they have made the team.

2. Students who, in the course of the school year, play one sport only in winter, **must** take PE 1st and 4th quarter, and will be exempt from PE, 2nd and 3rd quarter, during their season.
3. First time spring sport participants, if they are not coming off a winter season, **must** be in a second semester physical education class until they are assured of making the team.

4. If the number of students trying out for a team is more than the team can carry, cuts may be made. If this is the case, all students in jeopardy of not making a team **must** be enrolled and participating in a physical education class until they have made the team.

---

**Health**

**Department Head: Karen Brandt**

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

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

**Health (9th grade)**

**Health 751**

**Fall (First Quarter)**

**Class Meetings: 1**

This introductory health class is intended to help the freshman have a smoother transition from middle school into the upper school. The class will emphasize relevant issues such as decision making, drugs/alcohol and social/mental health. Additionally, this class will offer an introduction to sources of support for the freshmen. Guest speakers may include the learning specialist, school psychologist and peer supporters.

**Health (10th grade)**

**Health 752**

**Year**

**Class Meetings: 2**

**Credits: 5**

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

**Health (12th grade)**

**Health 753**

**Spring (Third Quarter)**

**Class meetings: 1**

The purpose of this class is to help prepare seniors for the transition from high school to college. Topics will include separation from family, home, friends and high school; Sexually transmitted infections; contraception; date rape; drugs and alcohol; mental and physical health.
Guest speakers may include college mental health professionals, alumni, staff from college health services, and drug education specialists.

**Peer Support Team Training**

**Health 754**  
**Year**  
**Class meetings:** 3  
**Credit:** .5

The purpose of this course is to train team members in preparation for becoming partner leaders of small groups of ninth grade students. Through an extensive, yearlong process, students in this course will learn to be role models, mentors, and group leaders of younger peers. Class members sign a behavioral contract, and 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.

**Prerequisite:** Acceptance into the team after a four-week selection process completed during the previous spring semester.

**Peer and Leadership Support**

**Health 760**  
**Year**  
**Class meetings:** 3  
**Credit:** 5

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

**Prerequisite:** Acceptance into the team after a four-week selection process completed during the previous spring semester.

---

**College Counseling – About Standardized Testing**

**SAT Subject Tests: Which ones? When?**

The timeline for taking SAT Subject Tests is predicated upon several variables, which makes choosing the best time for a student to take a specific test an individualized decision. Most students begin taking Subject Tests in the spring of their junior year. In some cases, however younger students may consider taking a Subject Test prior to 11th grade.

For further guidance regarding a student’s readiness to take specific SAT Subject Test, please refer to the information below:

**Subject Tests: English**

Students in grades 9 through 11 read works from a variety of time periods, from the Renaissance through the 21st century. They read English and American literature, along with literature in translation.
They are exposed to a variety of genres, including novels, poetry, non-fiction, short stories, and plays. As part of their day-to-day work in English, students in grades 9 through 11 practice the skills emphasized on the Literature Subject Test as identified by the College Board.

English students in grades 9 through 11 are not asked to demonstrate their understanding of literature in a multiple-choice format. However, 11th grade students who are enrolled in AP English regularly practice answering multiple-choice questions about literature. We recommend that those students who are interested in taking the English Subject Test obtain a commercially prepared study guide in order to prepare independently for the topics not covered in their courses; the optimum time for testing is in the June following completion of 11th grade English.

Subject Tests: History

World History
Students taking AP European History or the Modern World History electives will have studied much, but not all, of the material included on the World History SAT Subject Test. For those students who are interested in taking this Subject Test, we recommend that they obtain a commercially prepared study guide for World History to prepare independently for topics not covered in the course, and to review the ancient history that students studied in ninth grade. Teachers are available to provide additional resources and advice to interested students.

US History Subject Test
Students taking 10th Grade U.S. History will have studied much but not all of the material included on the American History SAT II Test. For all students who are interested in taking this Subject Test, we recommend that they obtain a commercially prepared study guide for the US History SAT II Test to prepare independently for the topics not covered in the course. Teachers are available to provide additional resources and advice to interested students.

Subject Tests: Mathematics

Students can take the Math Level 1 SAT Subject Test, Math Level 2, or both. Both Subject Tests cover a breadth of topics and students need not master all topics to score well on these tests. Packer’s math courses cover approximately 90% of the topics on the tests. While math teachers may use some class time to assign and review test questions in appropriate math classes, Packer’s courses are focused primarily on teaching mathematics content. We advise that students prepare independently for these tests. SAT Subject Test preparation guides are available for sign-out during the day from the math office.

Math Level I
Students will have studied requisite content for the Math Level I Subject Test after completing Algebra II or Algebra II A. However, approximately 40% of the test is on geometry topics so it is advisable that students review geometry concepts prior to taking the exam. In addition, because of the cumulative nature of mathematics courses, students may choose to take this exam after completing Precalculus or Precalculus A.

Math Level II
Students will have studied requisite content for the Math Level II Subject Test after completing Precalculus or Precalculus A.
Subject Tests: Science

Physics
The goal of the SAT Subject Test is to “measure understanding of physics at a level suitable for college preparation.” Packer’s Advanced Physics course covers approximately 40% of the material required for the Physics SAT Subject Test, including kinematics, dynamics, energy, gravity, forces, electrostatics, an introduction to waves and analytical skills.

Because of the depth and breadth of the exam, it is not recommended that students take the Physics SAT Subject Test based solely on completing the freshman Advanced Physics course at Packer. However, if students make the decision to take the test, we recommend they complete a program of independent study in the following areas not generally covered by Advanced Physics: waves, geometric optics, circular motion, momentum, simple harmonic motion, circuits, capacitance, electromagnetism, thermodynamics, and modern physics. Packer’s AP Physics B course is a suitable program for preparing students for the SAT Subject Test in Physics. Although all areas are adequately covered by the AP Physics course, it is recommended that students wait to take the SAT Subject Test until after sitting for the AP Physics exam. It is also recommended that students obtain a commercially prepared study guide for the Physics SAT Subject Test and work with it prior to taking the test.

Chemistry
The goal of the SAT Subject Test is to “measure understanding of chemistry at a level suitable for college preparation.” The science department’s Advanced Chemistry course covers approximately 75% of the material required for the SAT Subject Test, including the nature of matter, atomic theory, bonding, chemical reactions, stoichiometry, solutions, and gas laws. Because of the depth and breadth of the exam, it is not recommended that students take the Chemistry SAT Subject Test based solely on completing Packer’s Advanced Chemistry course. However, if students make the decision to take the test, we recommend they complete a program of independent study in the following areas not generally covered by quantitative chemistry: colligative properties, acid-base chemistry, redox reactions, chemical equilibrium systems, entropy, Hess’ Law, and introductory organic chemistry. It is also recommended that students obtain a commercially prepared study guide for the Chemistry SAT Subject Test and work with it prior to taking the test.

With the appropriate review book and test preparation, students who complete Advanced Topics in Chemistry, a one semester elective course for 11th graders that is designed to be an extension of the 10th grade Advanced Chemistry curriculum, will be well-prepared to sit for the Chemistry SAT Subject Test.

Packer’s AP Chemistry course is also a suitable program for preparing students for the SAT Subject Test in Chemistry.

Although all areas are adequately covered by the AP Chemistry course, it is recommended that students wait to take the SAT Subject Test until after sitting for the AP Chemistry exam. It is also recommended that students obtain commercially prepared study guide for the Chemistry SAT Subject Test and work with it prior to taking the test.
**Biology**
The goal of the Biology-E and Biology-M SAT Subject Tests are to “measure understanding of biology at a level suitable for college preparation.” Packer’s Biology course covers approximately 75% of the material required for the SAT Subject Test, including cellular and molecular biology, ecology, genetics, evolution and biodiversity. Because of the depth and breadth of the exam, it is not recommended that students take the Biology SAT Subject Test based solely on completing Packer’s Biology or AP Biology course. However, if students make the decision to take the test, we recommend they complete a program of independent study in organismal biology, or human body systems, which makes up 25% of the SAT Subject Test. Both Biology and AP Biology will give students a strong conceptual understanding of the biological processes covered on the test. Students earning high marks in Biology or enrolled in AP Biology should consider taking the exam. While the new (2013) AP Biology curriculum does cover some of these systems, outside preparation is still required to learn the additional systems. Packer’s Anatomy & Physiology elective course will provide students with experience in several of the body systems; however, again, not all systems are covered. It is recommended that students obtain a commercially prepared study guide for the Biology SAT Subject Test and work with it prior to taking the test.

**Subject Tests: World Language**

**Latin**
The SAT Subject Test in Latin is a comprehensive exam that essentially tests students on the cumulative grammatical material acquired throughout the range of Packer’s Latin program, that is, from Latin 50 through Latin IV. The Latin examination focuses upon such topics as grammar and syntax, English derivatives, translation and reading comprehension, and poetry and scansion. Because poetry and poetic meter are not introduced until the second semester of our Latin IV course, we do not recommend that our Latin students sit for the SAT Subject Test Latin exam prior to the completion of Latin IV.

Because the second semester of Latin IV entails not only the introduction of poetry, but also specific preparation for this exam, the optimum time for testing is the June following completion of Latin IV or when they are enrolled in AP Latin.

**Spanish**
Spanish language students who have completed Packer’s Level IV Advanced Spanish Language course (*Advanced Spanish Grammar, Composition and Style*) are prepared to take the SAT Subject Test in Spanish. In this advanced language course, students work with a rich array of vocabulary and master strategies that assist with their preparation for the vocabulary section of the exam. The course syllabus also includes a comprehensive review of key grammar topics and exercises which are similar to the exam in structure. Additionally, the class works with texts and literature, similar to those used in the reading and comprehension portion of the test. During the fourth quarter, students have the opportunity to complete several practice tests, which help to determine their level of preparedness for the exam.

The optimum time for testing is the June following completion of Packer’s Level IV Advanced Spanish Language or while they are enrolled in AP Spanish.

**Be advised that there are two different Subject Tests in French/Spanish, one focused on reading and the other focused on listening. The listening exams are only offered in November. You should consult your teacher about which exam is a better fit.**
**Chinese**

The Chinese program at Packer emphasizes four specific language acquisition skills: listening, speaking, reading and writing, in order for students to become fluent in the target language. Ninety percent of the topics (ex. travel and transportation, eating in a restaurant, hobbies, weather, school life, making appointments, attending meetings and parties, etc.) and approximately 70% of the grammar included in the Chinese SAT Subject Test have been studied by all students who have completed Packer’s Level IV Chinese course. Students interested in taking the subject test, however, will need to study independently those topics such as the adverbial expression using “de”, dynamic particle “zhe”, repetitive adverbial expressions, and passive voice independently, which are not introduced until Level V*.

*Note: The majority of students who enroll in Chinese V are in the 12th grade.

**French**

Advanced French Composition and Grammar, is designed to not only assist students in their preparation for taking the AP French Language course, but also to prepare for the SAT Subject Test. A range of grammar topics are included in this course (conjugations of present tense verbs, regular irregular, all forms of the past tense: passé composé, imparfait, plus-que-parfait, passé simple, the future tense, the present and past subjunctive, relative pronouns, the uses of articles). Additionally, students complete a close study of various French texts from the 19th and 20th century that include genres such as poetry, fiction, essay and theater. The study of literature enables students to improve their reading comprehension, build their vocabulary, and hone their analytical skills. Students listening skills are refined throughout the course as a result of the class being conducted entirely in French and the inclusion of a listening exercise on each assessment.

These Advanced French students also regularly write and revise original essays and creative pieces. It is recommended, though not required, that students take the SAT Subject Test in French after completing this course or while they are enrolled in AP French.

**Be advised that there are two different Subject Tests in French/Spanish, one focused on reading and the other focused on listening. The listening exams are only offered in November. You should consult your teacher about which exam is a better fit.**

**Frequently Asked Questions**

About the SAT Reasoning Test and SAT Subject Tests

1. **What is the testing timeline for most Packer students who take the SAT Reasoning Test (formerly the SAT I)/ SAT Subject Tests?**

The majority of Packer students do not take their first SAT Reasoning Test until the spring semester of their junior year (either March, May or June), which allows them to achieve the most benefit from the Packer English and math curricula that include content knowledge and skills covered on the SAT. Students can also choose to take the SAT Reasoning Test an additional time in the fall of their senior year. The timeline for taking SAT Subject Tests is based upon several variables, making the choice for when to take a specific test an individualized decision. Most students begin to take Subject Tests in the spring of their junior year. In some cases, students may
want to consider taking a Subject Test prior to their junior year. For example, a student who is enrolled in level IV pre-Advanced Placement language class and/or pre-calculus is likely to be well prepared to take the Subject Test in June of the year in which he/she is completing the course. A PSAT score that indicates that a tenth grade student has already developed key test taking skills, such as critical reading and reasoning and who has also experienced success in Packer’s American history course, or in one of Packer’s chemistry courses in 10th grade, may consider taking the corresponding SAT Subject Test in June of sophomore year.

The best way to assess student readiness is to take a practice test and to let the score be a guide. If a student is not satisfied with his/her practice test results and plans to continue to study the discipline the following year, it is perfectly reasonable to wait to take it the following year when they will have had further coursework and more time to prepare.

2. What are SAT Subject Tests? (What content do they cover and what do they measure?)
The College Board website, www.collegeboard.com states that, “SAT Subject Tests are a battery of one-hour, mostly multiple-choice tests that measure how much students know about a particular academic subject and how well they can apply that knowledge. Students take the Subject Tests to demonstrate to colleges their mastery of specific subjects like English, history, mathematics, science, and language. The tests’ content evolves to reflect current trends in high school curricula, but the types of questions change little from year to year. Many colleges use the Subject Tests for admission, for course placement, and to advise students about course selection.”

SAT Subject Tests fall into five disciplines: English, history, mathematics, language and science. The College Board website can provide more detailed information regarding the purpose of the tests, subject matter and format, as well as test-taking tips, and practice test questions.

3. How many SAT Subject Tests should students plan to take before applying to college?
The number of tests students are required to take will vary from college to college. Ninety percent of all the colleges in the United States do not require SAT Subject Tests of their applicants, but many schools to which Packer students have applied recommend or require two to three Subject Tests. Some colleges specify the Subject Tests that they require for admission or placement; others allow applicants to choose which tests to take.

4. When are the SAT Subject Tests given and how do students register to take them?
The College Board website offers easily accessible information regarding test dates and registering on-line. Additionally, students can pick up a registration bulletin from Packer’s college counseling office that contains test dates and includes a form to register by mail. Please note that there are hard and fast registration deadlines for each test administration. It is each family’s responsibility to plan ahead and to register themselves through the College Board. Should you want to secure Packer as a test site, it is best to register well in advance of the deadline.

5. What courses at Packer Collegiate Institute will prepare students to be successful on the SAT Subject Tests?
Since the SAT Subject Tests are independent of any particular textbook or method of instruction, there is not a direct correspondence between Subject Tests and Upper School course offerings. Beginning in ninth grade, students are introduced to test taking skills that apply to the format of the SAT Subject Tests, such as analytical reading and deductive reasoning. Additionally, AP courses further develop test taking skills while covering a broad range of topics applicable to the
Subject Tests. Required courses offered by the history and science departments are not structured to prepare students for Subject Tests, but students who are interested in these subject(s) should seriously consider if they could be successful preparing independently for a Subject Test. An easy way to determine how much preparation would be required is to take an SAT Subject practice test.

Students who are enrolled in an advanced language, advanced math and Advanced Placement courses will discover that each of these programs of study naturally correspond to the range of topics covered on the corresponding SAT Subject Tests.

The Upper School’s required series of English courses provides every student with a carefully designed syllabus to develop skills such as literary analysis and to study an array of genres, both of which will contribute to a student’s success on the SAT Subject Test in Literature.

The required courses in history (Ancient History, American and Modern World History) and science (physics, chemistry and biology) are not structured to prepare students for SAT Subject Tests. These two departments have made pedagogical decisions to offer curricula that value depth over breadth and critical thinking and analysis over memorization and repetition. As a result of this in-depth study and the development of critical thinking skills, students who are successful in any of these courses may confidently choose to pursue independent/personal preparation for SAT Subject Tests in these disciplines.

6. How will Packer Collegiate Institute faculty, college counselors and the Upper School administration support students who take the SAT Subject Tests?

Through the academic planning and registration process for 11th and 12th grade, students are given the opportunity to work with their advisors and deans to select courses that will provide an appropriate level of challenge to meet their long range goals of graduation and college admission. During this process, each student’s four-year plan is reviewed by his/her dean. Additionally, starting in the second semester of the junior year and as part of the college counseling process, each student also works closely with his/her college counselor, which further guides the choices he/she will make regarding the selection of and timeline for SAT Subject Tests.

7. How do colleges use the SAT Subject Tests?

Many colleges use the Subject Tests for admission, for course placement, and to advise students about course selection. Used in combination with other background information (high school record, scores from other tests like the SAT Reasoning Test, teacher recommendations, etc.), Subject Tests are believed to provide a national measure of a student’s academic achievement and are used as a predictor of future performance.

8. How can students find out if they are prepared to take an SAT Subject Test? What preparation strategies have Packer students used in the past?

The best predictor of a student’s success on an SAT Subject test is the score he/she earns on a practice test. Students considering taking an SAT Subject Test should begin by taking a practice test. The College Board website includes detailed information about each Subject test. Packer’s college counseling office has SAT Subject Test practice books for most tests and local bookstores often have an array of such books available for purchase.
Packer does not endorse a particular form of test preparation, but the school’s deans and college counselors are prepared to discuss various strategies that Packer students have found useful. Packer teachers are not expected to provide instruction to prepare students for the SAT Subject Tests beyond what has been previously mentioned.

9. What scores do colleges see?
Students are able to select, for most colleges, which scores they send to colleges by sitting (test date) for the SAT and by individual test for the SAT Subject Tests. However, a limited number of colleges will require students to submit the results of all tests they have taken. While a student may not have to reveal every test score to a college, Packer does not recommend students spend unnecessary amounts of time preparing for tests and sitting for tests multiple times simply because there may be no risk to low scores. It is important that students take the tests when they are most prepared to do so. Simply taking a test multiple times without substantial preparation has not proven to impact scores in any way that is significant. Moreover, devoting excessive amounts of time to test preparation minimizes the amount of time students can spend on what is most significant in their college profile: their academic record, engagement with learning and pursuit of their own interests outside of the classroom.

<table>
<thead>
<tr>
<th>Semester Away Study Programs: Frequently Asked Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question:</strong> Who should apply to a semester away study program?</td>
</tr>
<tr>
<td><strong>Answer:</strong> Every semester away study program has a particular emphasis and is best suited to students who have already demonstrated an interest in some aspect of the program. Additionally, students who are interested in having a different high school experience while remaining a steadfast member of the Packer community have found that off-campus study programs are the perfect complement to their Packer four year plan.</td>
</tr>
</tbody>
</table>

| **Question:** Will I be able to meet my Packer graduation requirements if I participate in a semester away study program? |
| **Answer:** Yes, Packer students are able to meet all of their graduation requirements, although this means that you will need to work closely with the grade dean. Most often students find it necessary to carry one or two of Packer’s core graduation requirements into the senior year. Students considering off-campus study should also be mindful of the extent to which participating in a program influences the level of challenge they can pursue in their Packer courses during senior year. |

| **Question:** How does Packer handle my re-enrollment contract, tuition, and activity fees while I am away? |
| **Answer:** You will need to meet with Romina Ros, Controller (718-250-0343) by **May 1, 2012**, to discuss your plan to enroll in an off campus program. Ms. Ros will discuss the billing implications of participation in off campus programs and answer any questions you may have. Students who are planning to study off campus for one semester must complete a re-enrollment contract. |
Students enrolled in a full-year off campus program must contact Ms. Ros by December 1, 2011 to ensure that a re-enrollment contract for the following school year will be prepared during the annual re-enrollment period.

Question: Will the grades I earn be recorded on my Packer transcript and calculated in my Packer GPA?

Answer: Grades earned at another institution are not recorded on the Packer transcript, nor factored into the Packer GPA. However, Packer grants credit for all courses a student successfully completes, and the student’s semester away study program transcript is attached to the Packer transcript as an addendum.

Question: How will my participation in a semester away study program impact my work with Packer’s college counseling office?

Answer: Students who enroll in a spring semester or full year course of study away from Packer and parents of those students, can expect to meet with Packer’s college counselors in advance of the students’ departure. Parents are invited to participate in relevant college counseling programs and meet with their child’s college counselor while their child is away and will receive the spring college counseling e-mail newsletters; the college counselors will meet with the student upon his/her return.

Additionally, colleges have had a consistently positive view of students who challenge themselves through participation in a semester away study program. For example, High Mountain Institute and Chewonki Semester School are both well-established programs that college admissions offices are familiar with and welcome applicants who have successfully completed either program.

Question: Though I had originally planned to study away for a semester, can I choose to extend my stay for the entire year?

Answer: Each year, the Upper School schedule and budget is based on enrollment projections. Any change in those numbers has significant implications for our school’s ability to operate effectively. Therefore, families are not permitted to extend their stay beyond the originally contracted period of time. Failure to abide by this policy can result in forfeiture of deposit and/or a review of contract.