BURROUGHS

JOHN BURROUGHS SCHOOL

CURRICULUM GUIDE

2022-2023

Student's Name _____

(Save for future reference)

Every effort has been made to ensure the accuracy of the various entries, but John Burroughs School retains the right to amend, add, or cancel courses.

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JOHN BURROUGHS SCHOOL
CURRICULUM GUIDE
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Thoughtful course selection plays a key role in ensuring optimal growth and development. Please read this guide carefully before selecting courses for next year. Spend some time thinking about your own goals and motivations and the time demands inherent in any given program, including participation in publications, dramatic and musical productions, student government, team sports, and/or activities outside of school. *Take a close look at the instructions, requirements, and guidelines outlined on pages 4-8*.

Then, in consultation with your parents/guardians and advisor, and with the approval of your Principal, plan a program best suited to your unique capabilities and interests. (Juniors should also consult with their college counselor.)

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COURSE SELECTION INSTRUCTIONS

1. Read the Curriculum Guide carefully. Note the requirements that apply to you and the various courses, activities, and programs in which you might participate.
2. Consult with your parents/guardians about your prospective schedule. ***NOTE: One parent/guardian must sign the course selection card.***
3. During the Advisory meeting during the common period on Monday, March 28, make an appointment to meet with your advisor to discuss your program choices. ***NOTE: Once completed, your advisor must sign the course selection card. Your advisor will submit the card directly to the appropriate principal for you.***
4. Students currently in their junior year should consult with both their advisor and college counselor about courses. Students should obtain their college counselor's approval before seeking out their advisor's signature.
5. When choosing between different levels of a particular course, you are strongly encouraged to follow the recommendation provided by the department (listed on the course selection card). If you have questions about any recommendations, you should consult with your current teacher in that subject.
6. Pay careful attention to the following when filling out the schedule card:
    a. Please use a ***pencil*** when filling out the card.
    b. Circle the course number of each course you wish to take.
    c. Write each course's name and the number of periods it meets in the table provided. You must provide back-up choices for limited-enrollment courses and electives.
    d. If you request more than one course in a department, you must designate which course you prefer.
    e. You may not take more than 3 Honors and/or AP courses in one year. If you wish to take a sixth full-credit course (Intensive Art or Mobile App Development only), you must obtain written permission from your principal. *Please note that in most cases these requests are denied.*
7. Turn in the completed, signed card of the proper color (see #8 below) to your ***advisor*** by Friday, April 8. After reviewing cards, advisors will turn them in to the appropriate principal by Friday, April 15.
8. Advisors turn in cards to the principal designated below:

Current grade	Card Color	Principal
7	Green	Ms. Churchwell-Varga
8	Orange	Ms. Churchwell-Varga
9	Yellow	Ms. Shimabukuro
10	Pink	Ms. Shimabukuro
11	Blue	Ms. Salrin

JBS GRADUATION REQUIREMENTS

(Grades 9-12)

In order to earn a high school diploma a student must meet promotion requirements in a program including:

1. Each year at least four full-credit courses chosen from the five major academic disciplines, plus one elective each semester.
2. Four years of English.
3. Two years of History (World Civilizations I or II, and U.S. History).
4. Levels I and II of a single foreign language, classical or modern.
5. Two years of Mathematics.
6. Two laboratory Science courses.
7. Four courses in the Arts: 3 in the Fine Arts (Visual or Performing)* and 1 in the Practical Arts.**
8. Health and Wellness (see p. 80).
9. Diversity Seminar (see p. 81)
10. Physical Education each year. (see p. 82)
11. May Project in the senior year (see p. 96).

***Courses in the Fine Arts include:** Drawing and Painting I and II, Sculpture I and II, Ceramics I and II, Printmaking, Photography I and II, Intensive Studies: Art, Intensive Studies: Art - Honors, Independent Study: Art, JBS Voices, Men's A Cappella, Orchestra, Jazz Band, Songwriting, Acting 9-10 (formerly Theatre 9-10), Acting 11-12 (formerly Theatre 11-12), Cabaret, Theatre Production, Playwriting, Improvisation, Public Speaking, Intermediate and Advanced Debate.

****Courses in the Practical Arts include:** Project Technology I and II, Architectural Drawing, Digital Audio Technology, Computer-Aided Drafting, Architectural Drawing, Computer Video Editing and Special Effects, Food Explorations, Sewing I and II (Clothing or Quilting), Basic Gardening, Public Speaking, Intermediate and Advanced Debate, Theatre Production, Programming in Java (formerly Introduction to Computer Programming), and Programming for the Web.

STATE OF MISSOURI COLLEGE PREPARATORY CURRICULUM

For its College Preparatory Studies Certificate, the Missouri Department of Elementary and Secondary Education requires that students a complete rigorous high school program, co-operatively planned by the school, the student, and the student's parents/guardians. At a minimum, this curriculum must include the following areas and credit: English/Language Arts (4), Mathematics (4), Science (3), Social Studies (3), Fine Arts (1), Practical Arts (1), Physical Education (1), Electives - including two credits of a Foreign Language (6).

MISSOURI STATE HIGH SCHOOL ACTIVITIES ASSOCIATION ELIGIBILITY REQUIREMENT

"The student shall currently be enrolled in and regularly attending courses that offer 3.0 units of credit or 80% of the maximum allowable credits which may be earned, whichever is greater."

COLLEGE ADMISSIONS REQUIREMENTS

Most colleges to which our students apply require or prefer in grades nine through twelve at least four years of high school English, three levels of a foreign language, three years of history, three years of higher mathematics (through Algebra II), and three years of a lab science, plus involvement in the arts, commitment in the activities program, participation in athletics, and contribution to the school community.

NCAA DIVISION I COURSE REQUIREMENTS

Complete 16 core courses: 4 years of English, 3 years of math (Algebra 1 or higher), 2 years of natural/physical science (including one year of lab science if your high school offers it), 1 additional year of English, math or natural/physical science, 2 years of social science, 4 additional years of English, math, natural/physical science, social science, foreign language, comparative religion or philosophy. Important: The NCAA has additional eligibility requirements which can be found online at http://www.ncaa.org/student-athletes/play-division-i-sports.

PROGRAM GUIDELINES

1. In a school week with 48 periods, 5 are used for lunch, 8 for physical education. From the remaining 35, no more than 10 should be free periods.
2. The average workload is five major (full-credit) courses (20 to 24 periods per week), plus 5 to 6 periods occupied by elective courses. In total, students typically have 25 to 30 assigned periods per week.
3. When determining the number of courses to enroll in, students should note:
    a. Most students take 5 major (full-credit) courses, but a student may choose or be advised to take 4, which is the minimum (see Graduation Requirements, p. 5). Students may not take more than 5 full-credit courses in any one year (unless the 6th class is Intensive Art or Mobile App Development).
    b. Those interested in applying to division I/II schools should be aware that the National Collegiate Athletic Association requires the satisfactory completion of at least sixteen academic courses at the high-school level (grades 9-12). Some independent studies may be used for the initial eligibility certification. (see p. 6)
4. To prevent overloading of academic sections and to make full use of the faculty, the following course enrollment rules are in effect:
    a. No assurance of course enrollment can be given to students who register for more than one course in a department.
    b. Any course or any activity listed in the Curriculum Guide may not be offered either because of insufficient enrollment or the unavailability of a faculty member to teach that course or activity.
5. Any course may be dropped by using the proper procedures within the time specified herein. Exceptions may be granted at the discretion of the grade-level principal.
    a. A full year course may be dropped any time prior to the end of the first semester, but before final exams. A semester course may be dropped at any point prior to the end of the semester in which it is offered. Courses dropped within these limits are not shown on a student's record and there is no penalty.
    b. Students may drop to a *lower level* of a course no later than November 15th. (If the 15th falls on a weekend, the student may drop no later than the first Monday after the 15th.)
    c. In the case that a student transfers from an honors course to a regular course in the middle of the semester, the student's grade is determined in the following way: The honors teacher determines an average and adds one third of a letter grade to it (i.e., C+ becomes B-); that grade serves as the student's average upon entering the regular class.

6. Courses may be added by using the proper procedures within the time specified herein, if class-size limitations are not exceeded. A full-year course may be added no later than the end of the second week of the first semester. A second semester course may be added no later than the end of the second week of the second semester. Exceptions may be granted at the discretion of the grade-level principal.
7. Honors courses honors credit are offered in English, Modern and Classical Languages, Mathematics, Science, and Fine Arts (see course descriptions). An additional quality point of .67 is awarded to those students earning honors credit. Specific guidelines for honors credit courses are as follows:
    a. Honors work represents a more abstract and more difficult level of material or skill. Students take greater responsibility for their own learning. More work alone is not a criterion for honors credit.
    b. The honors option is open to all students who meet the proper department prerequisites. In cases of over-enrollment, guidelines for placement are established by each department and noted in course descriptions.
8. Many colleges allow credit and/or placement for college-level work in high school. The College Board offers a national test in May in a variety of subject areas. Scores are reported on a 1-5 scale; students who score a 3, 4, or 5 usually receive college credit, but individual college policies must be consulted. Specific Advanced Placement (AP) courses are offered at Burroughs, but students often take an AP examination in other areas as well. Junior and senior students are limited to enrollment in 3 Honors and/or AP courses in a given school year. **NOTE:** ***Students in courses with AP in their title MUST take the College Board AP Examination to receive credit for an AP course and honors points at Burroughs.***
9. Evaluation in most courses is reported by the 12-step A/B/C system; these courses carry credit, and the grades are included in the grade point average calculation. For some courses identified herein, evaluation is reported by a two-step P/F (pass/fail) system; these courses carry credit, but the grades are not included in the GPA.
10. If a student leaves John Burroughs School in good standing at the end of the 11th grade, a diploma may be attained within the next three years upon evidence of satisfactory completion of a full first-year academic program at an accredited college or university. Arrangements should be made early in the junior year.
11. College courses can only be taken if they are not available at JBS (e.g., Calculus III). A full-credit half-year course at the college level receives one-half credit at JBS; the class appears on the transcript, but the grade is not listed nor is it included in the GPA. [Students are advised to send a separate transcript from the college at which they are taking the class(es)

COURSE DESCRIPTIONS AND POLICIES

ENGLISH

JBS Graduation Requirement: 4 years

Much of what students discover and practice in a Burroughs English class develops through discussion, an exchange in which we aim for each student to take part. While the seminar model thus serves as our home-base format, students work in many other modes in class as well, from writing workshops, to small-group exercises, to performance-based approaches that bring words off the page and into life. As a joyous team of close readers and versatile writers, we model those endeavors for our students as we guide them in honing their attention to, and bravely experimenting within, various literary forms. Both in classroom exchange and in writing instruction, we guide our students to root their ideas in evidence: to open the book, to find the passage, to read it carefully, to respond to it with integrity. In our diverse community, we aspire to reflect and explore the various identities in our midst; we seek to understand ourselves, each other, and our world.

As colleagues, we balance the individual experience and creative autonomy that animate each of our classrooms and the ongoing collaborative refinement of our practices. Our English classrooms challenge students to think deeply and regularly explore their ideas in writing. We encourage students to confer with us one-on-one during the writing and revising processes so we can provide tailored support and guided practice to individual writers as they develop their own voices.

In grades seven and eight, teachers lay the groundwork of the writing program by introducing foundational skills in literary analysis and persuasive and expressive writing, as well as exploring the elements of usage and grammar. As students advance through the grade levels, they will engage in the ongoing refinement of their skills in writing, reading, speaking, and listening. Each of the following course descriptions lists a sampling of texts read, but these lists are not exhaustive. Summer reading is required at every grade level.

English 7
(Required, 4 periods/week; full year)

English 7 is designed as a year-long journey of discovery. Students and teachers read, reflect, and write together about a range of genres including short stories, poetry, novels, plays, and essays. Students write in a variety of forms, including reflective journals, creative emulations, personal narratives, and literary analyses with teachers serving as mentors, coaches, and guides throughout the writing process. Required texts have included *How to Eat a Poem, The Outsiders, A Raisin in the Sun, Animal Farm, Brown Girl Dreaming, A Midsummer Night's Dream*, and selected short stories; additionally, all teachers supplement this list with frequently updated contemporary novels taught in the form of literature circles. The course includes a systematic and intentional study of vocabulary and grammar—the building blocks of reading and writing—as well as an emphasis on dynamic participation, oral presentation, and active reading and listening. In sum, the English 7 curriculum seeks to support and develop young teams of readers, writers, and thinkers in our joyfully literate classroom spaces.

English 8
(Required, grade 8; 4 periods/week; full year)

Our choice of texts seeks to inspire and compel students to empathize with other perspectives and experiences, while expanding the active reading foundation established in seventh grade. To this end, we begin the year with a shared text that all students read over the summer. Through this novel we launch our exploration of the way culture shapes identity and the way stories both reflect and shape people and communities. As we hone students' active reading skills, we simultaneously push them to deepen their analytical thinking and writing, in addition to their self-expression and control of language in various creative pieces. With direct instruction, students practice note-taking skills and expand their vocabulary. They extend their grammatical lessons into syntax, punctuation, and style. Although our curriculum continuously evolves to reflect the diverse voices of our community and world, the following texts recently comprised our reading list: *The Absolutely True Diary of a Part-Time Indian, To Kill a Mockingbird, The Secret Life of Bees, Gracefully Grayson, Private, Peaceful, The Tragedy of Julius Caesar, March Book One,* and selected poems and short stories.

English I
(Required, grade 9; 4 periods/week; full year; 1 credit)

English I is a genre studies course, exposing students to a wide variety of literary forms and placing special focus on the coming-of-age narrative. The course requires students to read, write, and reflect on poems, plays, novels, short stories and works of nonfiction. Additionally, ninth-graders practice both expressive and literary analysis writing. Texts representing a wide range of voices are selected from a list that includes *Annie John, The Catcher in the Rye, Romeo and Juliet, The House on Mango Street, The Gangster We Are All Looking For, Alice in Wonderland*, and *The Life of Pi,* as well as a variety of short stories and poems.

English II
(Required, grade 10; 4 periods/week; full year; 1 credit)

Building upon the skills practiced in English I, sophomore students strengthen their dexterity in writing through a variety of expressive and argumentative writing projects. We focus on composition techniques including clarifying and combining sentences, controlling substantiating detail, and shaping overall essay structure. Through the conferenced revision process, students work to clarify their thinking as they develop their own voices. The course selections emerge from the British literary tradition and reach into the contemporary postcolonial landscape, addressing and responding to the changing scope of the texts and their far-reaching impact. We select readings from a list that includes *The Canterbury Tales, The Tempest*, *Pride and Prejudice*, *Frankenstein*, British Romantic poetry, *Pygmalion,* World War I poetry, *Brave New World*, *Things Fall Apart*, *Purple Hibiscus*, *The Woman Next Door*, *Born a Crime*, contemporary Anglophone Caribbean poetry, and selected nonfiction.

English III
(Required, grade 11; 4 periods/week; full year; 1 credit)

The junior-year English course, which focuses on American literature and key concepts of American culture, aims to address essential questions such as "what does it mean to be an American?" and "who gets to be an American?" The curriculum includes texts from a variety of time periods, genres, and literary movements. Additionally, students' concurrent junior-year study of United States history presents them with opportunities to make interdisciplinary connections. Through an array of creative and analytical assignments, students expand their skills as they examine other writers' rhetorical choices and hone their ability to craft complex arguments and expressive pieces. Readings may include *The Scarlet Letter, The Great Gatsby, The Brief Wondrous Life of Oscar Wao, Beloved* and *Fun Home*, as well as a variety of shorter pieces in multiple genres.

English IV
(Required, grade 12; 4 periods/week; full year; 1 credit)

Designed as a yearlong conclusion to a six-year program in literary instruction, English IV offers complex challenges in reading, writing, thinking, and discovery. The course pivots upon issues linked to self and society; for instance, we ask students to wrestle with how one develops an identity within community, how one learns to balance responsibilities to self and others, and how one best navigates a dynamic world. All writing assignments—including personal reflections, traditional literary analyses, stylistic emulations, and more—encourage students to experiment with new forms and strengthen the authority of their individual voices. Teachers select a mix of classic and contemporary fiction and non-fiction aimed at nurturing a love of reading, exposing students to a range of styles and voices, and preparing students to live literary lives outside the support of a high school classroom. In the spring semester, a visiting writer delivers an address, shares their work, and participates in conversations or workshops with seniors. Recent texts have included *Hamlet, Song of Solomon, Exit West, Winter's Bone, The Best We Could Do, Letters to a Young Poet, Unaccustomed Earth, The Pugilist at Rest, As I Lay Dying, Salvage the Bones,* short stories, essays, poems, films, and more.

English IV Honors Seminar
(Grade 12; by application; limited enrollment, 4 to 8 per group; 1 period/week; full year; Honors credit)

Admission requirements include a cumulative average of B or higher in English courses grades 9-11.

Several teachers in the English Department offer seminars in areas of specialized interest. Meeting weekly, these semester-long seminars are distinct from the regular English IV course. Honors credit is contingent upon the student's maintaining a satisfactory performance in Honors Seminar and at least a B- in regular English IV. Weekly preparation, attendance, and participation are core requirements of the course. In addition, a short mid-term project and a final paper of significant length are required in each semester seminar.

The Department Chair makes detailed application instructions available in early February. In determining admissions, English department members evaluate the strength of each candidate's application as well as the quality of each candidate's general performance in upper school English classes: not just grades achieved but also commitment made manifest through active, thoughtful, and generous participation. Honors English applicants are notified of admissions decisions shortly before spring break so that applicants may plan their senior year schedules accordingly. Students can expect an additional 60 minutes/week of honors homework in addition to their regular English work.

HISTORY

JBS Graduation Requirements: World Civilizations I OR World Civilizations II; and U.S. History.

We live within a complex world facing challenges that frequently have their roots in the past. In history classes, students explore, analyze, and evaluate these roots by looking at earlier political, religious, economic, and social institutions. Students thereby acquire knowledge and develop skills that they can use to create meaning about their own lives and about the times in which they live. The department's curriculum provides a framework and body of knowledge with which to organize an understanding of these aspects of human endeavor.

Instruction in the seventh and eighth grades addresses geography, global issues, and American social and political institutions. Study in grades nine, ten, and eleven addresses the history of world civilizations, including a course in the history of the United States. In the twelfth grade, elective, specialized courses in history and the social sciences allow students to broaden, or to intensify, their program of study. The curriculum, grounded in factual information, develops critical thinking through reasoned classroom dialogue and logical, analytical writing. Teachers also strive in their classes to nurture each student's personal growth, to promote the group's mutual goals and responsibilities, and to engender a joy for learning.

Geography and Global Issues 7

(Required: 4 periods/week; full year)

The course centers on the study of physical and human geography and how they relate to past and current global issues. The different fields of human geography–population, political, urban, and economic geography fields–are stressed and provide tools for examining current issues. Students learn the basic methods geographers use to study the world, including the five themes of geography, and then explore the role of geography in shaping societies. With this strong foundation, students begin to study different regions of the world, mainly non-western. Readings on current issues determine the areas studied and become a focal point in the study of that issue. As students learn of issues present around the globe, they continue to explore the role geography plays in these issues and use the different fields of human geography to understand these issues more effectively. Skills emphasized include writing, especially paragraph development; note taking, both in class and on homework; how to participate actively in discussions; how to read maps; and how to organize and read data. Students demonstrate comprehension through projects and on traditional assessments, including quizzes, tests, writing assignments, and graded participation.

Social Studies 8
(Required: 4 periods/week; full year)

Students study American political institutions, looking at the nation's political theory as well as the structure and functioning of various governing bodies. In addition, students investigate public issues and groups active in addressing them. Students also learn about Missouri's state government and its constitution. After developing expository writing into the essay form, they write a short, documented paper based on their research of a contemporary political issue.

World Civilizations I
(Alternate required course, grade 9; 4 periods/week; full year; 1 credit)

This course begins the formal study of history by considering the contributions to world culture from the early human communities through the ancient world to 1300. In addition, students study the rise of contemporaneous societies in Asia, Africa, and Europe. Students engage in various class methods, including lecture, discussion, document analysis, and debate. Work in writing furthers student skill for preparing effective expository essays. The course requires a fall semester final exam. In the spring, students receive methodical instruction to complete a documented research paper.

World Civilizations II
(Alternate required course, grade 10; 4 periods/week; full year; 1 credit)

This course continues the study of world history and cultures by examining societies in Asia, Africa, Europe, and the Americas, beginning in the 14th Century. Text, documentary, and literary sources present political, economic, social, and intellectual history. The foremost goal of the course is to help students learn about the complex origins of their contemporary world. A formal research paper is required, as are examinations at the end of each semester. A required summer reading book is assigned.

United States History
(Required, grade 11; 4 periods/week; full year; 1 credit)

This course begins with European colonization in the western hemisphere, continuing chronologically and thematically to the present day. Students survey significant events, individuals, and issues in the American national experience. Beyond the standard text, students encounter primary source material, literature, and scholarly journals in preparation for discussion, simulation exercises, and lectures. Students write a term paper focusing on the skill of historiography. End of semester examinations are required. Students, after consulting with their teacher, may elect to prepare, with extra study, for the U. S. History Advanced Placement examination.

African-American Studies
(Grade 12; enrollment limited to 18 students; 4 periods/week, full year; 1 credit)

The course provides a thorough study of the African-American experience in both Africa and North America based on extensive readings and class discussion. The course is divided into four seminars:

1) the African origins of black culture
2) the history of racism and race relations
3) the history of civil rights
4) the history of black nationalism.

Students read a broad range of sources written by African and African-American authors, including: standard texts, popular literature, primary source documents, articles from contemporary periodicals; they will also use various audio/visual resources. Each seminar culminates with a writing assignment, individual project or graded discussion. Additionally, there is a required December examination.

United States History Since 1945
(Grade 12; enrollment limited to 14 students; 4 periods/week; full year; 1 credit)

The period in American history following World War II was an era of puzzling contradictions. The United States emerged from the war as the world's only true economic and military superpower. Most Americans were very optimistic, believing that the U.S. could use this power to create a more peaceful world, while producing seemingly limitless prosperity at home. By 1974, these expectations had all but vanished. U.S. history since then has been dominated by efforts to recapture that sense of optimism.

By examining the post-war era's most important political, social, and cultural developments, this seminar seeks to explain this transformation and its long-term ramifications. Topics include McCarthyism, the Cold War, the Vietnam War, the Civil Rights Movement, and the social and cultural upheavals of the 60s and their legacies. While the primary focus is on 1945-1974, the course also touches on significant developments in the late 70s, 80s, and 90s.

In addition to reading histories of the period, students examine a wide variety of primary source materials. Along with more traditional sources, the seminar also explores contemporary art, music, film, and literature. Since the course is taught as a seminar, interest in critical thinking and a genuine desire to participate actively in class discussions are essential. Class activities include group discussion, film and documentary viewing, and student presentations. Several tests and essays and the December examination are required.

Global Modern Feminism
(Grade 12; enrollment limited to 16 students; 4 periods/week, full year; 1 credit)

This survey course examines the experiences of women since 1900, the various ways in which they have raised their voices, and the opposition they have encountered. Students will gain a broad perspective on feminism, learning about a variety of individuals and movements around the world, as well as the overlapping themes and goals that cross borders. Possible topics of study include: suffrage in the United States and Europe; postcolonial feminism in the Caribbean; the diversity and challenges of modern African feminism; Black feminism in the United States; the rise of female leaders in Latin America; recent feminist movements in Asian nations; and modern radical feminism. Alongside readings from authors like Betty Friedan, Simone de Beauvoir, Kishida Toshiko, Domitila Barrios de la Chungara, and bell hooks, cinematic works from a variety of nations on or with feminist themes will be screened and examined as texts. Past films include: *Thelma and Louise*, *Bande de filles*, *Sisters in Law*: *Stories from a Cameroon Court*, and *9 to 5*. Active class participation is crucial; essays and a first semester examination in December are required.

Literature and History
(Grade 12; enrollment limited to 16 students; 4 periods/week; full year; 1 credit)

If you might enjoy reading about a Jewish handyman who takes on the tsar and the entire Russian judicial system, or an old woman living alone in an ancient Polish forest who tries to hide two children from the Nazis in World War II, or a young man about your age who tries to survive trench warfare in World War I, or a Vietnam vet who, with disastrous consequences for his wife and himself, tries to pretend his past never happened, you might sign up for this class. If you want to read about why some people walk away from a utopia called Omelas, or what a fisherman trapped on a ledge in the North Atlantic does to protect his son and nephew from a rising tide, or why over six hundred British cavalrymen charged straight at Russian cannons even though they knew almost certain death awaited them, or what an old Japanese-American woman remembers from being jailed in Utah during World War II just because of her ancestry, this class might be for you. The backbone of the class is discussion of the issues raised and history covered in everything we read, as well as examining the authors' lives, which invariably seem to be more interesting than our own. Tests are writing only, and a December exam is given.

Bioethics (only one section offered)
(Grade 12; enrollment limited to 16 students; 4 periods/week; full year; 1 credit)

This seminar explores the political and ethical decisions behind some recent and some historical scientific issues. Led by both a science and a history teacher, students explore the science behind the issues before confronting the political and ethical ramifications of them. Students are evaluated (written and orally) on their knowledge of the science and its political and ethical implications and are expected to be active participants in both segments of the class - the scientific component as well as the discussion component, which are weighted equally. Contemporary issues covered may include: gene therapy, cloning, medical marijuana, the genetics of race, HIV and AIDS, and the ethics of human and animal experimentation. Historical issues addressed may include: the use of research by Nazi scientists, the Tuskegee experiments, and the human radiation experiments. Students will choose their own topic for a group presentation in the spring. A sample approach follows: *if the topic was stem cells, students would learn what various types of stem cells are, and what applications they might have, before considering ethical implications of such research, and whether or not the government should fund research into stem cells.*

Urban Issues and Design
(Grade 12; enrollment limited to 16 students; 4 periods/week, full year; 1 credit)

"We drive up and down the gruesome, tragic suburban boulevards of commerce, and we're overwhelmed at the fantastic, awesome, stupefying ugliness of absolutely everything in sight -- the fry pits, the big-box stores, the office units, the lube joints, the carpet warehouses, the parking lagoons, the jive plastic townhouse clusters, the uproar of signs, the highway itself clogged with cars – as though the whole thing had been designed by some diabolical force bent on making human beings miserable." — James Howard Kunstler

How did our built environment get so bad? What was the traditional design before sprawl? How can we build better, safer urban environments? Why are cities the best way to save the environment? What is the connection between fossil fuels and sprawl? These are the questions addressed in the first half of this course exploring the design of the American city and how to fix it. In the second half of the year, the course focuses on the urban underclass and the myriad of interconnected problems present in urban America today. The spring semester explores economic and social inequality, race, crime, drug abuse, and more. Readings include selections from James Howard Kunstler, Andres Duany, Leon Dash, Elijah Anderson, Alex Kotlowitz, Jonathan Kozol, Jane Jacobs, and others. A final is required at the end of the first semester.

LANGUAGES – CLASSICAL

JBS Graduation Requirement: Level I and Level II of a single language.

T.S. Eliot observed that "we are all, so far as we inherit the civilization of Europe, still citizens of the Roman Empire." The Latin program proves this observation by studying the language and, through it, the culture of the Romans.

To understand how the language works is essential. In this way the student can not only read the writings of great Roman authors, but also appreciate how basic Latin is to modern English. Most English words have classical roots, including 90% of words relating to science and technology, so the study of Latin and Greek leads to a wider English vocabulary. Furthermore, the greater part of English literature has been written by those who were classically educated, and for readers who were presumed to have some knowledge of Latin and Greek.

Many Latin readings show that most of our ideas political and personal, our fears and aspirations, are not new. To paraphrase Eliot, it is through the experience of the dead that we can make sense of the living, but first we must learn their language.

Because increased emphasis is placed on the depth of learning a foreign language, the department recommends the six-year sequence of study, i.e. through Level V, in Latin.

Honors credit is offered at both Levels IV and V upon the satisfactory completion of additional assessments. Those students who complete Latin V will have the opportunity to write the Latin AP exam.

It is not necessary to be enrolled in Latin in order to take Greek; in fact, many successful students have no background at all in Latin. They follow the introductory courses (available in grades 10-12) because they are inquisitive about the Greek World, and not only its language but also its culture, history and geography. Meeting twice weekly, the Greek courses are considered electives that can supplement, and not replace, an existing language choice.

The Classics department also offers two elective courses. Classical Mythology in the Arts is an introductory and illustrated course available in grades 9-12, and Foundations of Western Literature, available in grades 11 and 12, introduces the pillars of Greco-Roman literature and encourages their intelligent reading through lectures and class discussion. Since all the works in this course are read in translation, it is NOT necessary to have studied either Latin or Greek.

Most years the department sponsors a trip to Italy (Rome and Naples) during the spring break. The popularity of this trip restricts it to students currently enrolled in Latin III, IV or V, or Greek I or II. The Italy Trip will take place again in March 2023. The next Greek trip takes place in June 2022. It is open to all in the Burroughs community: parents/guardians, students, and alumni. However, priority will be given to those with a background in Greek or Latin. A trip to Roman Britain, also open to all members of the Burroughs community, will take place in June 2023.

Latin 7*
(4 periods/week; full year)

The student is introduced to the world of the poet Horace, who lived to see a Roman republic torn apart by civil war emerge as the settled empire of Augustus. Horace's own education allows an opportunity to learn some of the more famous myths of the Greeks and Romans, and background material on contemporary history complements the narrative. Extended Latin passages tracing this story are used to explore the structure of simple Latin. By the end of the year students meet the three most important noun declensions, as well as the basic syntax of the six noun cases; they also learn the present tense of all four verb conjugations. This grammar, along with basic vocabulary, is reinforced with regular translation and composition exercises. Text: *The Oxford Latin Course,* part I.

Latin 8*
(Prerequisite: Latin 7; 4 periods/week; full year)

Part II introduces the student to further aspects of grammar and vocabulary, including the last two noun declensions, all the tenses of the indicative, and the passive voice. These are incorporated in a text describing the decision by Horace's father to take his son from rustic Venusia to Rome for a formal education. The Rome of Horace's adolescence was dominated by the First Triumvirate of Crassus, Pompey and Julius Cæsar, whose assassination prompted Horace to abandon Italy for Athens where he would complete his education. Text: *The Oxford Latin Course*, part II.

NOTE: Students who satisfactorily complete Latin 7 and Latin 8 may progress to Latin II in the ninth grade. Graduation credit for the foreign language requirement is only earned upon completing Latin II.

Latin I
(Grades 9-12; 5 periods/week; full year, 1 credit)

This is a class for students who want to start Latin in the upper school. For those who have not yet had the pleasure of Latin, nor enjoyed its salutary effect upon their use of English, this intensive course proves highly beneficial. Through a selective and accelerated reading of *The Oxford Latin Course*, together with supplementary material, students acquire the necessary vocabulary, grammar, and context for entry to Latin II. Text: *The Oxford Latin Course*, parts I and II.

Latin II
(Grades 9-12; Prerequisite: Latin I or equivalent*; 4 periods/week; full year; 1 credit)

By the end of the third volume of the *The Oxford Latin Course* students meet all the major grammar and syntax (e.g., the subjunctive mood and constructions, gerunds and gerundives, conditional clauses, and the ablative absolute) necessary to read Latin literature with some fluency. In this volume Horace returns from Greece, is introduced to the literary patron Mæcenas, and gradually comes to know both Augustus and the challenges which face his rule, from rebuilding the state to quelling Cleopatra; thus, Horace is placed in his true literary and historical context. Interspersed with the grammatical exercises and prose narrative are several of Horace's original poems, which embrace the perennial questions of love and war, the monumental and the commonplace in our lives, jealousy, and contentment. Text: *The Oxford Latin Course*, part III (2nd edition).

Latin III
(Grades 10-12; Prerequisite: Latin II; 4 periods/week; full year; 1 credit)

Students make the transition from the story of Horace's life, recounted in *The Oxford Latin Course*, to authentic Latin literature. This introduction embraces both poetry and prose of the highest order. Caesar, in a seemingly objective war diary, describes his military campaigns in France (*de Bello Gallico*). To read his account of betrayals, defeats and victories is to peer into the mind of a superb general and even greater propagandist. Ovid, in an epic poem about transformation (*Metamorphoses*), recounts perennially favorite myths and legends that involve change; Apollo and Daphne, Pyramus and Thisbe and Pygmalion, to name a few. Since our selections from Caesar's *de Bello Gallico* are those required for the Advanced Placement exam (which also includes selections from Vergil's *Aeneid*), students enrolled in this class may consider taking the Latin AP exam after completing Latin V. All Latin III students will take the National Latin III Exam.Texts: *A Call to Conquest: Readings from Caesar's Gallic Wars*, ed. Perry, (Pearson) and *Love and Transformation: an Ovid Reader*, ed. R. Lafleur (Pearson/Prentice Hall).

Latin IV
(Grades 11-12; Prerequisite: Latin III; 4 periods/week; full year; 1 credit; Honors credit available for additional assessments)

This course embraces both poetry and prose of the highest order from two contemporaries living through the death throes of the Roman Republic. For matchless Latin prose, Latin scholars can do no better than the forensic work of Cicero, that towering literary figure of the late Republic. Once they have read Cicero's *First Catilinarian Oration*, they meet the sometimes romantic, sometimes invective poetry of Catullus, who was one of the few Romans, it seems, who did not try to curry favor with Gaius Julius Caesar. Whether reading prose or poetry, Latin students continue to enhance their skills by constant review and reinforcement of fundamental grammar and syntax. All Latin IV students will take the National Latin IV Exam. Texts: Cicero, *First Catilinarian Oration*, ed. K. Frerichs (Bolchazy Carducci) and *Love and Betrayal: A Catullus Reader*, ed. Arnold, Aronson and Lawall (Prentice Hall).

Latin V
(Grade 12; Prerequisite: Latin IV; 4 periods/week; full year; 1 credit; Honors credit available for additional assessments)

Poets as different as Tennyson and T. S. Eliot have hailed Vergil's *Aeneid* as a landmark in the European literary tradition, and so it rightly forms the centerpiece of this senior level course. Students read the entire story in English as well as Latin extracts that include the fall of Troy, the tragedy of Dido and Aeneas and the hero's descent to the underworld. Since Vergil is the other author (with Caesar from Latin III) on the AP syllabus, students may choose to write this examination at year's end. In addition to reading episodes in Vergil's epic poem, Latin V students will return to their first guide through the Latin language, Quintus Horatius Flaccus (Horace), and read selections from his songs on personal and political themes.

If there is sufficient student interest, a second class is offered that reads Cicero's brilliant, if scurrilous, speech in defense of Caelius. This syllabus gives students the rare opportunity to read an entire Ciceronian speech in which every legal and emotional card is played out to the fullest. Those interested in studying law at college, or simply manipulating an audience, are encouraged to sign up for this option. All Latin V students will take the National Latin V Exam. Texts: *Vergil's A Song of War: Readings from Vergil's Aeneid*, eds. R. A. LaFleur and A. G. McKay (Pearson) and *Horace Reader*, ed. J. Lowe OR Cicero, *Pro Caelio*, ed. Keitel and Crawford (Focus).

Beginning Greek
(Grades 10-12; No prerequisite: absolutely no knowledge of Latin is necessary; 2 periods/week; full year; 1/2 credit)

Students are provided a clear and distilled introduction to Greek vocabulary, grammar and syntax, and these are then practiced in readings from Aesop's fables, stories from *The Odyssey* and Greek history. The first year of instruction covers the main forms of nouns and adjectives, and a range of active tenses, including participles. The text is supplemented with copious examples of Greek derivatives, and students thereby enrich their English vocabulary, both informally and for standardized tests. Time is also devoted to reading a play in translation, either a tragedy or a comedy. Text: *Greek to GCSE*, Part 1, ed. Taylor (Bristol Classical Press).

NOTE**:** Many non-Latin students have taken, and are currently taking, this course with great success. It may be well added to any of the modern languages, since it reinforces grammar and vocabulary, but is not taught as a spoken language.

Greek I
(Grades 11-12; Prerequisite: Beginning Greek; 2 periods/week; full year; 1/2 credit)

This course continues the progress made in Beginning Greek, introducing a wider range of grammatical forms and constructions, and expanding vocabulary. Readings move from Homeric tales to the life of Alexander the Great, and finally to the philosophy of the pre-Socratics and Socrates himself. Time is also devoted to reading a play in translation, either a tragedy or a comedy. Text: *Greek to GCSE*, Parts 1 and 2, ed. Taylor (Bristol Classical Press).

Greek II
(Grade 12; Prerequisite: Greek I, 2 periods/week; full year; l/2 credit)

This course continues the progress made in Greek I, introducing a wider range of grammatical forms and constructions, and expanding vocabulary. Readings move from the Greek philosophers to the wonderful world of myths and legends, and finally to passages adapted from the historical writings of Herodotus. Time is also devoted to reading a play in translation, either a tragedy or a comedy Text: *Greek to GCSE*, Part 2, ed. Taylor (Bristol Classical Press).

Classical Mythology in the Arts
(Grades 9-12; 2 periods/week; full year; 1/2 credit)

In this year-long elective course, students who are intrigued by the gods, goddesses, heroes and heroines of Greek and Roman mythology will get a chance to take a deep dive into some familiar (and perhaps, some novel) tales of deception, valor and transformation as they explore their depictions in the arts. We will examine the myths through the lens of all media, ancient and modern. Students will read classical texts in translation, examine ancient vases, mosaics, coins and statues, read modern literary treatments, view film adaptations and listen to musical interpretations.

Foundations of Western Literature
(Grades 11-12; academic option, no knowledge of Latin or Greek is necessary; 4 periods/week; full year; 1 credit; Honors credit available for additional assessments)

The influence exerted by the classical world upon the modern is sometimes obvious, sometimes latent, but always pervasive. The Doric columns on the Schnuck wing are a clear instance; less evident, perhaps, is the very long shadow cast by ancient Greek and Roman authors upon the subsequent western literary tradition. This course introduces students to the literary roots from which spring so many of the best works of western literature. The texts themselves lie at the heart of this course, which is a seminar-style discussion based upon close readings of primary sources. First semester focuses on the classical epic, assessing the changing concept of the "hero" and the "heroic" in Homer's *Iliad* and Vergil's *Aeneid*. Second semester the class cuts across generic boundaries as it dips into the intellectual ferment of fifth-century B.C. Athens; readings in history, tragedy, comedy, and philosophy enable students to consider "hot button" topics in Athens that should still stir everyone up today. The course will also include examination of classical themes in contemporary cultural expression. Some art history is sampled, too, as the class occasionally explores how classical literature has manifested itself in visual arts through the centuries. Evaluation consists of tests, largely objective in nature, and short essays on the readings.

This course may be taken for an optional Honors credit. To earn Honors credit, students will complete two assignments each semester over and above assigned readings. These assignments may include, but need not be limited to, creative projects, leading class on the day's reading, and reading an additional literary work and writing an evaluative report on it. Honors assignments will generally be evaluated on a credit/no-credit basis.

LANGUAGES – MODERN

JBS Graduation Requirement: Level I and Level II of a single language.

French, German, and Spanish are the modern foreign languages offered in Levels I-V (grades 7-12). French, Russian and Chinese are also offered in grades 10-12 as additional language electives which meet twice a week.

The Modern Languages department aims to fulfill measurable and immeasurable goals. Teachers at all levels, and in each of the languages taught, move students toward the empirical goal of proficiency in the basic language skills of speaking, listening, reading, and writing. Concurrently, the department's underlying conviction stresses the idea that language study enhances one's ability to recognize, accept, appreciate, and function with other ways of living; language study sheds light on cultural differences, while carrying the idea that there are legitimate reasons for differences. Differences stem from geography and branch out through the history and evolution of politics, philosophy, literature, and the arts of a given culture. A language reflects the culture in which it occurs, just as the culture reflects its language. The two are inseparable.

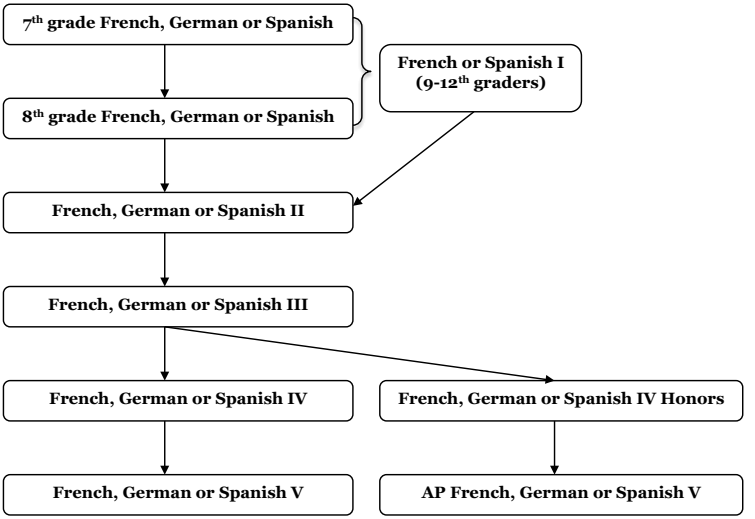
Thus, the Modern Language department at JBS strives to teach students to communicate in a living language, knowing that to do so effectively means not only to know vocabulary and grammar, but also to understand how the language has evolved symbiotically with the cultures of which it is a part. Moreover, developing a greater breadth of cultural perspectives inherently deepens an understanding of each student's own culture. In so doing, students understand the English language in a more sophisticated way, and they gain valuable perspectives on the functioning of American culture.

The department provides the potential for a successful experience in all levels of skills. Thus, it offers comprehensive courses using a variety of teaching techniques and encourages interaction among individuals within the classes. Students who successfully finish the five-level sequence can continue their language instruction at the college level, generally placing out of beginning, and sometimes intermediate college-courses. Furthermore, students develop a sound foundation for a successful study abroad experience. The department also encourages students to participate in an exchange/homestay program or travel experience in a country where the studied language is spoken (see p. 92 "International Trips" section for more details).

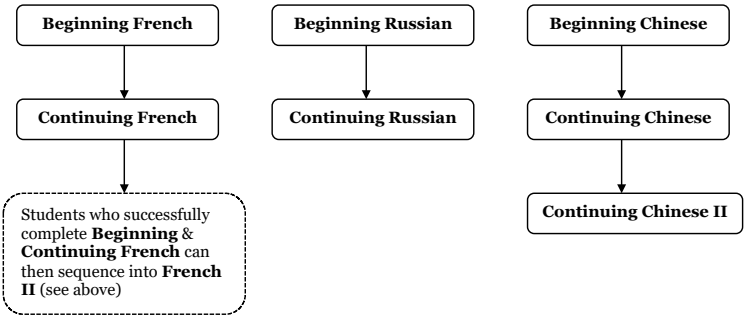
Because increased emphasis is being placed on oral proficiency in the teaching and testing of modern foreign languages, the department recommends the six-year sequence of study, through Level V.

The following flow chart demonstrates the typical sequences of modern language courses:

The following core language classes meet 4 days a week, with the exception of the level I and AP courses, which meet 5 days a week:



½ credit (2 periods a week) full-year language elective courses offered for 10th-12th graders:



* *Electives are enrollment dependent.*

French 7*
(4 periods/week; full year)

Students joining the Burroughs' French community will begin their journey with a thorough exploration of both the French language and its many cultures. Basic communication concepts such as the present tense, personal pronouns, adjectives, as well as gender & number agreement, will first be introduced using context and then reinforced through class observations and discussion as students begin to build their interpretive, interpersonal and presentational communication skills. Students will learn to think like a linguist by using both context and specific strategies while studying comprehensible unit themes such as identity, school, and family life. The community that develops within the classroom will naturally encourage and shape the students' emerging accents and conversational skills. Throughout the year, unit projects will provide the opportunity to truly apply the language using various forms of creative projects. Texts: *EntreCultures 1* Textbook & Activity Workbook (Wayside Publishing).

French 8*
(Prerequisite: French 7; 4 periods/week; full year)

Continuing to build their interpretive, interpersonal, and presentational communication skills, this course emphasizes conversational ability, and continues to increase acquisition of vocabulary, verbs, idioms, and grammatical structures. Basic structures from the French 7 curriculum are reinforced and students study vocabulary, grammar, and cultural concepts related to the school day and school campus, food at home and at restaurants, leisure activities, weather, clothing, and getting around town. They continue to advance their fluency through classroom work, homework, and assessments that ask the students to engage in short conversations and dialogues, interpret written and spoken French from authentic resources, and write short responses to prompts in the target language. This course takes concrete steps toward establishing an immersion environment in which the teacher and students operate exclusively in French. A daily study of French music as well as various projects are also included in the curriculum throughout the year. Text: *EntreCultures 1* (Wayside Publishing).

French I (offered pending sufficient enrollment)
(Grades 9-12; Prerequisite: Department Chair approval; 5 periods/week; full year; 1 credit)

This is a course for those students who want to begin French in the upper school by laying a basic language and cultural foundation, or for students who need a review of the concepts learned in 7th and 8th grade (per department recommendation). Conversational ability is developed by classroom interaction, practice in the language laboratory, and online homework practice. Students learn a variety of basic vocabulary and idioms, verb conjugations in the present, many types of pronouns, adjectives, adverbs, and how to properly form statements and questions. Short compositions, readings and dialogues are undertaken, and elements of culture are explored throughout the year. The pace of the course is rapid, covering roughly the equivalent of French 7 and French 8. Texts: *EntreCultures 1* Textbook & Activity Workbook (Wayside Publishing).

French II
(Grades 9-12; Prerequisite: French I or equivalent*; 4 periods/week; full year; 1 credit)

This course continues to build the vocabulary and language structures necessary for effective communication. Conducted almost exclusively in French, it allows the students to be immersed in the language and culture, thus providing them the opportunity to increase their linguistic knowledge and continuously develop their proficiency skills. Students will learn to work with the past tense (*passé composé* & *imparfait*), object pronouns, reflexive verbs, and the future tense. Skills are reinforced to help students continue to develop their proficiency skills in their interpretive, interpersonal, and presentational modes of communication. Students will also participate in a cultural unit of study of *Le grand dérangement* (the Acadian expulsion in North America) and read and discuss a novel relating to a variety of themes pertaining to Acadian and Cajun culture in the United States. Texts: *EntreCultures 2* Textbook & Activity Workbook (Wayside Publishing); *Au revoir l'Acadie* (reader).

French III
(Grades 10-12; Prerequisite: French II; 4 periods/week; full year; 1 credit)

This class is conducted almost exclusively in French. The reinforcement of the three modes of communication (interpretive, interpersonal & presentational communication) is continued with a strong emphasis of using new vocabulary and grammatical concepts in context through conversation, scripted dialogues, class presentations, short essays, letters, and written responses, and interpretation of authentic maps, articles, websites, and videos. The course explores the following themes as they relate to the students' current lives as well as French and Francophone cultures: friendship and personal life experiences, technology and digital citizenship, personal skills and competencies, preparation for future work, sustainability & responsible citizenship, aspects of personal identity & diversity, and artistic expression & appreciation. The study of basic grammatical principles and verb tenses is nearly complete by the end of level III, as students review the past tenses and imperative mood, learn the future tense, conditional and subjunctive moods and complete their study of pronouns. Texts: *EntreCultures 3* Textbook & Activity Workbook (Wayside Publishing); *Au revoir l'Acadie* (reader).

French IV
(Grades 11-12; Prerequisite: French III; 4 periods/week; full year; 1 credit)

Having been presented with the basics of the language in previous years, this course expands and refines the knowledge acquired. Students are expected to speak French throughout the course and continue to work on the four basic skills (writing, reading, speaking and listening) to varying degrees through discussions, written assignments, readings and listening exercises. New thematic credits are introduced through a range of cultural and literary presentations and discussions. ext: Le Petit Prince (Saint-Exupéry).

French IV-Honors
(Grades 11-12; Prerequisites: French III and departmental approval;
4 periods/week; full year; 1 credit)

This course emphasizes mastery of the basic skills (writing, reading, speaking, and listening) as a solid preparation for taking the French-AP course the following year. New vocabulary and thematic units are introduced and practiced through a broad range of cultural presentations and readings as well as literary pieces, allowing for the review of grammar as well as the acquisition of new structures. Text: *Le Petit Prince* (Saint-Exupéry).

French V
(Grade 12; Prerequisite: French IV; 4 periods/week; full year; 1 credit)

This class is taught as a film class in French, incorporating vocabulary and grammar review, conversation, and film studies. A variety of films are shown to expose students to a multitude of styles, themes, and content in French and Francophone movies. Time is given to the systematic development of vocabulary necessary for the discussion of selected topics in order to help students prepare for oral presentations and projects as well as debates involving the whole class; this is a project-based class without tests. This course will help students to reinforce their language proficiency and students will be well positioned to succeed on college language placement assessments after they graduate. Texts: *Breaking the French Barrier-Advanced* (grammar workbook)

NOTE: Due to the mature content of several of the movies (some of which are rated R) all students enrolling in this course need permission from a parent or guardian to watch them before enrolling in the course.

French V-AP
(Grade 12; Prerequisite: French IV-Honors and departmental approval; 5 periods/week; full year, 1 credit, Honors credit)

This class, conducted exclusively in French, focuses on preparing the students for the Advanced Placement Language & Culture examination through the systematic refinement of the four basic skills (writing, reading, speaking, and listening), in addition to providing a complete review of their grammar skills. Emphasis is placed on the discussion of a wide variety of topics (through daily discussion of news and current events), and active spoken participation is a daily expectation. There are also frequent oral and audio activities to further develop listening and speaking skills. Works and articles of informational and literary value are read, discussed and analyzed, and short reading selections may also be assigned over winter and spring break in order to help maintain the students' fluency. Essays on a wide range of themes are also regularly written weekly in preparation for the Advanced Placement examination. Texts: *Thèmes* (Vista Higher Learning), *AP French Language & Culture* (Ladd's); *Short novels: Art* (Yasmina Reza), *L'homme qui plantait des arbres* (Giono); selected Literary excerpts.

Beginning French (offered pending sufficient enrollment)
(Grades 10-12; 2 periods/week elective; full year; 1/2 credit)

This course features introductory vocabulary and grammar topics essential to basic communication in French. By the end of the year, students will have been introduced to French culture and be able to narrate, ask questions, conjugate most basic verbs, and work with possessive and descriptive adjectives as well as personal pronouns. (Note: this is a hybrid course and some of the work is completed online to help students solidify their learning outside of the 2-day a week classroom experience.) Text: *EntreCultures 1* (Wayside Publishing).

Continuing French (not offered in 2021-2022)
(Grades 11-12; Prerequisite: Beginning French, 2 periods/week elective; full year; 1/2 credit)

This course is meant to be a continuation of the Beginning French elective course. The students will finish their work in the Beginning French text, and by the end of the year, they will be able to use direct and indirect object pronouns, all regular present tense verbs as well as various irregular verbs, and will learn the *passé compose* and the imperfect tense. (Note: this is a hybrid course and much of the work is completed online to help students solidify their learning outside of the 2-day a week classroom experience.) After successful completion of Continuing French, students have to option to enroll in French II the following year. Text: *EntreCultures 1* (Wayside Publishing).

German 7*
(4 periods/week; full year)

This course introduces students to the language and culture of the German-speaking world. Emphasis is on the sound system, vocabulary, and structural patterns of the language; the primary goal is basic communicative proficiency. German is used as much as possible, and class activities are designed to maximize student use of the target language. Strategies include partner work, group activities, and role play. Audio texts, a video series, and short reading passages and stories serve as language models for developing aural and reading comprehension skills as well as written skills. Culture and geography are taught as an integral part of the language acquisition process. Texts: *Prima Plus A1.1* (Cornelsen); selected short novels.

German 8*
(Prerequisite: German 7; 4 periods/week; full year)

This course, too, emphasizes the development of listening, reading, speaking and writing skills. Students continue their study of the linguistic structures of the language, by completing the text and course materials begun in German 7. Concrete steps are taken toward establishing an immersion environment in which the teacher and students operate exclusively in German. Texts: *Prima Plus A1.2* (Cornelsen); selected short novels.

German II
(Grades 9-12; Prerequisite: German 8 or completion of Continuing German; 4 periods/week; full year; 1 credit)

This second-year course, conducted almost exclusively in German, continues to build on the structural foundations already established, and moves toward increasingly complex use of the German language. The emphasis is on both greater facility in sustained oral and written communication, and development of enhanced reading and listening comprehension skills. Reading selections, video texts, and audio materials continue to serve as linguistic models. Texts: *Prima Plus A2* (Cornelsen); selected short novels.

German III
(Grades 10-12; Prerequisite: German II; 4 periods/week; full year; 1 credit)

This is an integrative course in which students continue to develop more complex linguistic structures as they engage in readings and activities that enhance their knowledge and understanding of current German culture and cultural history. Readings concerning history and authentic materials from literature, film, science, poetry, and music are key components of the course. Text: *Prima Plus B1* (Cornelsen); selected novels.

German IV
(Grades 11-12; Prerequisite: German III; 4 periods/week; full year; 1 credit

Students explore a wide range of texts as models for speech and topics for written and oral discussion, as they are challenged to apply their knowledge of language structure to increasingly varied communicative tasks. Authentic literary and other cultural materials in the textbook are supplemented by video series, news clips, novels, magazine articles, and a film unit. Although this course is combined with German IV-Honors, the expectations and assessments will differ in quantity, length and complexity. Texts: *Neue Blickwinkel* (Wayside Publishing); selected novels.

German IV-Honors
(Grades 11-12; Prerequisite: German III & departmental approval; 4 periods/week; full year; 1 credit

Students explore a wide range of texts as models for speech and topics for written and oral discussion, as they are challenged to apply their knowledge of language structure to increasingly varied communicative tasks. Authentic literary and other cultural materials in the textbook are supplemented by video series, news clips, novels, magazine articles, and a film unit. Through the course, students will begin developing skills to take the AP German Language and Culture exam the following year. Although this course is combined with German IV, the expectations and assessments will differ in quantity, length, and complexity. Texts: *Neue Blickwinkel* (Wayside Publishing); selected novels.

German V
(Grade 12; Prerequisite: German IV; 4 periods/week; full year; 1 credit)

This class is conducted exclusively in German. Students read various short stories and hear and see various films, news clips, and songs and they discuss and analyze the material and what the material reveals about German culture. Grammar is thoroughly reviewed as the four basic skills (reading, writing, listening and speaking) are developed and practiced. Texts: selected novels.

German V-AP
(Grade 12; German IV-Honors and by departmental approval; 5 periods/week; full year, 1 credit, Honors credit)

This class, taught exclusively in German, focuses on preparing the students for the Advanced Placement Language & Culture examination through the systematic refinement of the four basic skills (writing, reading, speaking, and listening), in addition to providing a complete review of their grammar skills. Emphasis is placed on the discussion of a wide variety of topics, and active spoken participation is a daily expectation. There are also frequent language lab activities. Works and articles of informational and literary value are read, discussed, and analyzed, and short reading selections are also assigned. Texts: *Neue Blickwinkel* (Wayside Publishing), selected novels.

Beginning Russian (offered pending sufficient enrollment)
(Grades 10-12; 2 periods/week elective; full year; 1/2 credit)

This course offers students an introduction to both the Russian language and Russian literature. On the one hand, students learn the alphabet, noun declensions, and all verb tenses in the active voice as they work to develop listening, reading, speaking and writing skills; class activities promote student use of the target language and thus communicative competence. Text: *Beginner's Russian* (Hippocrene Books, Inc.).

Continuing Russian (not offered in 2022-2023)
(Grades 11-12; Prerequisite: Beginning Russian; 2 periods/week elective; full year; 1/2 credit)

All those who have completed Beginning Russian are invited to continue their exploration and study of Russian in this course. Students' understanding of and ability to use the language improves as grammar and vocabulary topics including the subjunctive, verbal aspect, and verbs of motion are addressed; students also have the opportunity to strengthen their listening, reading, speaking and writing skills by using Russian in class. Text: *Beginner's Russian* (Hippocrene Books, Inc.).

Beginning Chinese (not offered in 2022-2023)
(Grades 10-12; 2 periods/week elective; full year; 1/2 credit)

Students with foreign language interest who have chosen a classical or modern language as their primary language of study can choose this course as an introduction to a non-European language. It features learning basic sounds, characters, and vocabulary. The topics of greetings, names, nationality, family and food will be taught through highly interactive activities, interesting games and cultural experiences. This course provides a basis on which to decide whether pursuing Chinese at the university level is a goal they wish to pursue. Text: *Kuaile Hanyu I* (Prentice Hall).

Continuing Chinese (not offered in 2022-2023)
(Grades 11-12; Prerequisite: Beginning Chinese; 2 periods/week elective; full year; 1/2 credit)

This is a continuation of Beginning Chinese. Students who now have a foundation in Chinese language and culture will improve and increase their skills by learning additional characters and dialogues to enable them to converse more fluently in basic conversations. The topics of school life, time, weather and jobs will be taught through highly interactive activities, interesting games and cultural experiences. Text: *Kuaile Hanyu II* (Prentice Hall).

Continuing Chinese II (not offered in 2022-2023)
(Grade 12; Prerequisite: Beginning Chinese, Continuing Chinese; 2 periods/week elective; full year; 1/2 credit)

This course is offered to students who have completed the Beginning Chinese and Continuing Chinese elective courses or who can demonstrate the skills necessary for this equivalent level. Students will continue to build on their foundation, increasing their vocabulary acquisition and recognition skills. The goal for this course is to master a great number of Chinese characters and phrases, in both written and spoken form, that would allow a student to communicate basic needs in daily life with Chinese people in and outside of Chinese speaking societies. Students will also continue to develop their ability to compose short essays at this level. The topics of hobbies, transportation, travel, housing and shopping will be taught through highly interactive activities, interesting games and cultural experiences. Text: *Kuaile Hanyu III* (Prentice Hall).

Spanish 7*
(4 periods/week; full year)

This is a beginning course designed to develop conversational ability, with emphasis on pronunciation, basic communication, active and passive vocabulary, gender and number agreement, personal pronouns and present tense verbs. Students have access to an Internet Supersite to practice and reinforce skill development. Although speaking and understanding are stressed, students are expected to be able to write proficiently within the confines of the material presented. Culture is specifically taught as an integral part of learning Spanish. Texts: *Descubre 1* (Vista Higher Learning); selected readers.

Spanish 8*
(Prerequisite: Spanish 7; 4 periods/week; full year)

This course continues to build the basic language skills, with emphasis on increasing active vocabulary and adding the preterite past tense as well as object and reflexive pronouns. Students practice their speaking and comprehension skills by completing computer activities at home on the Supersite and in the language laboratory. Conversation, reading, writing, and culture remain primary components of the course. Concrete steps are taken toward establishing an immersion environment in which the teacher and students begin to operate exclusively in Spanish. Texts: *Descubre 1* (Vista Higher Learning); selected short novels.

Spanish I
(Grades 9-12; Prerequisite: Department Chair approval; 5 periods/week; full year; 1 credit)

This course is for those who want to start Spanish in the upper school, or students whose skills learned in 7th and 8th grade need more practice. Conversational ability is developed with emphasis on pronunciation, communication, and vocabulary. Students learn to manipulate both the present and preterite (past) tenses of regular and irregular verbs, adjective agreement, interrogative expressions, and direct and indirect object pronouns within the context of several topical vocabularies. Students have access to an Internet Supersite to practice and reinforce skill development. The course is designed to lay a strong foundation for future study; it is the equivalent of Spanish 7 and Spanish 8 combined. Texts: *Descubre 1* (Vista Higher Learning); selected beginner novels.

Spanish II
(Grades 9-12; Prerequisite: Spanish I or equivalent*; 4 periods/week; full year; 1 credit)

¡Nuestra meta es ser bilingües! (Our goal is to be bilingual!) Spanish II serves to maintain and build enthusiasm for the continued study of Spanish. As students are introduced to advanced grammar topics like the preterit and imperfect, the three moods and many of their tenses, "por" and "para" and relative pronouns, students will dive into engaging activities that will build their linguistic fluency. Audio immersion with television series in Spanish help students adapt their hearing to fast but natural Spanish speech and accents. Students prepare original scripts and perform them for an evaluation on pronunciation, expression, and fluency. Speaking Spanish is at the core of this class. Students complete "Tangible Cultural Creations" to experience culturally relevant cuisines and art forms. Much work is done collaboratively to reinforce that students are global citizens who need each other. Throughout the year students complete cultural-competency reflections that ask them to consider the cultural and personal relevance of class experiences. Texts: *Descubre 2* (Vista Higher Learning); *¡Qué cosas dice mi abuela!* (reader), *Perro grande... perro pequeño* (reader).

Spanish III
(Grades 10-12; Prerequisite: Spanish II; 4 periods/week; full year, 1 credit)

Emphasis on conversation is strengthened in order to increase fluency. The review and study of basic grammar principles is also continued and more complex structures, e.g., the imperfect subjunctive, the "if-clauses", sequence of tenses, are presented and practiced. Students read about the history, geography, and literature of Hispanic countries, as well as reading small selections from classic Hispanic authors. Several projects involving research of a variety of topics are assigned. Texts: *Descubre 3* (Vista Higher Learning); selected readings.

Spanish IV
(Grades 11-12; Prerequisite: Spanish III; 4 periods/week; full year; 1 credit)

This course is designed to improve students' ability to communicate in the target language through a wide range of writing, reading, listening and oral exercises. These may include individual or group presentations, voice recordings, essays, and other exercises. Previously studied grammar concepts will be reviewed to strengthen the students' use of language. A selection of literary texts are examined for their semantic and cultural meaning. Active discussions about news clips, documentaries, films, and music will help students develop their understanding of language and culture. Texts: selected literary texts.

Spanish IV-Honors
(Grades 11-12; Prerequisites: Spanish III and departmental approval; 4 periods/week; full year; 1 credit)

This course is designed to refine the already well-developed communicative competence of students. A wide range of writing, reading, listening and oral exercises will provide students with the necessary skills to communicate proficiently in the target language. Recognizing that usage of the target language is key to the second language acquisition, the students will have several oral evaluations in the form of individual and group presentations. Grammar concepts previously studied will be further analyzed to strengthen the students' use of language. An ample selection of literary texts is examined for their semantic and cultural meaning. Other media such as news clips, documentaries, film and music coupled with active discussions are an integral part to developing the students' understanding of language and culture. This course specifically prepares students to take the Spanish-AP course the following academic year. Texts: selected literary texts.

Spanish V
(Grade 12; Prerequisite: Spanish IV; 4 periods/week; full year; 1 credit)

This course gives prominence to developing the students' conversational and writing skills. Students are expected to regularly share their ideas and opinions using the target language. Current events, literary texts and several films provide the framework for class discussions as well as insight to the history and culture of the Hispanic world. This course also emphasizes the development of new vocabulary and linguistic expressions to aid students in their conversational and writing skills. Text: selected literary texts.

NOTE: Due to the mature content of several of the movies (some of which are rated R) all students need permission from a parent or guardian to watch them before enrolling in the course.

Spanish V-AP

(Grade 12; Spanish IV-Honors and departmental approval; 5 periods/week; full year, 1 credit, Honors credit)

The course, conducted exclusively in Spanish, is organized to excel the students' proficiency across the modes of communication: writing, listening, speaking and reading. The class emphasizes Latin American and Spanish culture and literature embedded with history and current events in order to be able to help students compare and contrast their own communities with that of the Spanish-speaking world at large. Expression and grammatical accuracy are highly emphasized and expected. Students are required to take the Advanced Placement Spanish Language and Culture examination in May. Texts: *AP Spanish Language and Culture Exam Preparation* (Vista Higher Learning), Temas: AP Language and Culture (Vista Higher Learning), *La Casa de Bernada de Alba* (Federico García Lorca), *Crónica de una muerte anunciada* (Gabriel García Márquez).

MATHEMATICS

JBS Graduation Requirement: Two years of mathematics in grades nine through twelve. However, most colleges require Algebra II (see p. 6).

The general goals of the program are to provide all students with computational skills and a knowledge of the basic facts, principles, and methods of mathematics, to develop in each student the ability to explore, make conjectures and reason logically and to help students learn to communicate mathematical ideas. Students are encouraged to think critically and creatively in applying their mathematical knowledge to problems and are given the opportunity to explore the various applications of mathematics. A major goal is to provide students with the background and appropriate skills to enable them to expand their mathematical knowledge in the future. The use of a calculator with graphing and programming capabilities is an important part of the curriculum, and students have to make decisions about when a calculator is an appropriate problem-solving aid. In most courses, TI-84+ graphing calculator is required and is used to develop central ideas and skills.

Different levels of each course are offered at each grade level to ensure that students are appropriately challenged. It is critically important that students build a solid foundation each year, as mathematics is a discipline that builds heavily on prior knowledge. The department makes thoughtful placement decisions for each student each year, and a student is not locked in to a "track" of classes.

The following chart shows the courses typically available at each grade level.

Grade	Courses Offered
7	Math 7, Math 7 Accelerated
8	Algebra 1, Algebra 1 Accelerated
9	Geometry, Geometry Accelerated
10	Algebra II, Algebra II Accelerated, Algebra II Challenge
11	Topics in Precalculus, Precalculus, Precalculus Honors, Statistics*, Economics*
12	Precalculus, Calculus, AP Calculus AB, AP Calculus BC, Statistics, Economics*

* Should not be substituted for a student's primary mathematics course.

NOTE: Students receive recommendations from the Mathematics Department with their Spring Updates. Recommendations are carefully considered by the department and are based on a number of factors, including input from current math teachers and grades in current math courses. Students who are not recommended for accelerated course are strongly discouraged from enrolling in these courses and must meet with the math department chair to obtain a signature if they intend to enroll against this recommendation.

Math 7
(Required if not in Math 7 Accelerated; 5 periods/week; full year)

This course is designed to provide the crucial background skills that students need for success in 8th-grade math. Emphasis is placed on firming up basic skills, exploring topics and skills that are new and more complex, and understanding why procedures work as they do. Students gain a solid foundation in arithmetic involving positive and negative numbers, fractions, decimals, percentages, prime factorization, square roots, ratios, order of operations, use of variables in problem solving, translating words and ideas into algebra, basic equation solving, area of plane figures and volume of solids. Extra time is devoted to study strategies, classroom skills, and the importance of showing and organizing work.

Math 7 Accelerated
(Required if not in Math 7; 5 periods/week; full year)

This course is designed to build upon even the most rigorous elementary mathematics curriculums. It provides all students with a solid foundation in order of operations, integers, absolute value, algebraic proof, integer exponents, number theory, fractions, decimals, percentages, equation solving, ratios, proportions, and basic two-dimensional and three-dimensional geometry. The supporting theory and principles behind each new idea are explored in significant depth. Students synthesize concepts, apply concepts in unfamiliar situations, generalize, hypothesize, and communicate their understanding both verbally during class and in written form on assessments and on daily assignments. Much emphasis is placed on the use of precise language and notation, problem solving techniques, writing skills used in mathematics, and organization of thought processes.

Algebra I
(Grade 8; required if not in Algebra I Accelerated; 5 periods/week; full year)

Algebra is the foundation for all later work in mathematics; mastery of concepts and skills is imperative. This course will cover the essential Algebra I skills, concepts, and ideas. The language and methods of algebra are the tools, while the multi-step problems are the context. Charts, diagrams, graphs, and the TI-84+ calculator are used to enhance the level of understanding, as well as to provide alternative approaches in problem solving. Topics covered will include linear and quadratic equations, word problems, factoring, algebraic fractions, graphing, function notation, systems of linear equations, and radicals. Students will have the opportunity to practice skills and to build a repertoire of problem-solving techniques. Time is allocated for consistent, cumulative review and for practice recognizing the various types of mathematical situations that students may encounter.

Algebra I Accelerated
(Grade 8; required if not in Algebra I; 5 periods/week; full year)

Algebra is the foundation for all later work in mathematics; mastery of concepts and skills is imperative. The language and methods of algebra are the tools, while the multi-step problems are the context. Charts, diagrams, graphs, and the TI-84+ calculator are used to enhance the level of understanding, and to provide alternative approaches in problem solving. Topics covered will include everything in Algebra 1, as well as logic, linear inequalities, absolute value functions, and more challenging problems throughout each unit. This is a fast-paced course. Rapid generalization and the ability to use abstraction are expected.

Geometry
(Grade 9; Prerequisite: Algebra I; 5 periods/ week/ full year)

The goals of the course are two-fold: content and form. The content is driven by investigations leading to definitions and conjectures; congruence and similarity of triangles and polygons; parallel lines; the Pythagorean theorem and its applications; analysis of area and volume; the geometry of circles; and basic techniques of analytical geometry. Constructions are used to help students experience the ideas at hand. The content areas are used to develop understanding of the form and processes of mathematics. Students learn to employ inductive and deductive reasoning. There is an emphasis on proof when the material allows it, and students learn that conclusions must be consistent with the assumptions on which they are based. They work to explore, understand, and clearly communicate the ideas they encounter. In addition, some algebra review will be interwoven as needed.

Geometry Accelerated
(Grade 9; Prerequisite: Algebra I; 5 periods/ week/ full year)

The goals of the course are two-fold: content and form. The content includes definitions, postulates, and theorems; congruence and similarity of triangles and polygons; parallel lines; the Pythagorean theorem and its applications; analysis of area and volume; the geometry of circles; and basic techniques of analytical geometry. In addition, several extension topics are incorporated, including constructions, the description of a locus, transformations, points of concurrency, or the hinge theorems. The content areas are used to develop understanding of the form and processes of mathematics. Students learn the fundamentals of formal logic and deductive reasoning. The course is rigorous and heavily proof-based, and students learn that conclusions must be consistent with the assumptions on which they are based. They work to explore, understand, and clearly communicate the ideas they encounter. This is a fast-paced course. Rapid generalization, a solid mastery of Algebra I topics, and a strong ability to represent and interpret mathematical ideas visually are expected.

Algebra II
(Grades 10; Prerequisite: Geometry; 4 periods/week; full year; 1 credit)

This course continues the development and efficient application of algebraic skills introduced in Algebra I. Several major families of functions are constructed and explored: linear, quadratic, absolute value, exponential, polynomial, and radical. When appropriate, the study of these functions includes additional discussion of transformations, composition of functions and modeling. Other topics that are developed and applied include basic combinatorics and probability, basic complex numbers, systems of linear equations, factoring, rational algebraic expressions, and rational algebraic equations. Multiple analytic approaches, as well as graphical and numerical methods, are applied to the problems in this course. An important goal of Algebra II is that students learn to discern which of these many methods is most appropriate in a given situation. Algebra II is the first part of a three-year sequence, which continues with Topics in Precalculus and then Precalculus, giving students time to practice and master these mathematical skills, concepts, and procedures.

Algebra II Accelerated
(Grades 10; Prerequisite: Geometry; 4 periods/week; full year; 1 credit)

This course continues the development and efficient application of algebraic skills introduced in Algebra I Accelerated. Several major families of functions are constructed and explored: linear, quadratic, absolute value, exponential, polynomial, variation and radical. The study of these functions includes additional discussion of transformations, composition of functions and modeling. Other significant topics that are developed and applied include combinatorics and probability, general equation solving algorithms, relations, complex numbers, matrix algebra, rational exponents, systems of linear and nonlinear equations, systems of inequalities, factoring, rational algebraic expressions, and rational algebraic equations. Multiple analytic approaches, as well as graphical and numerical methods, are applied to the problems in this course. An important goal of Algebra II Accelerated is that students learn to discern which of these many methods is most appropriate in a given situation. After Algebra II Accelerated, all junior level classes are possible placements for students: Topics in Precalculus, Precalculus, or Precalculus Honors.

Algebra II Challenge
(Grades 10; Prerequisite: Geometry; 4 periods/week; full year; 1 credit)

This course builds on the efficient application of algebraic skills introduced in Algebra I Accelerated. All of the same topics are taught as in Algebra II Accelerated, but symbol manipulation and procedural practice are covered quickly and given less emphasis. Students will engage in collaborative, complex problem solving to develop their verbal and written mathematical communication skills. Students will explore rigorous applications with their classmates and will present their solutions regularly. Important goals of Algebra II Challenge are that students learn to write crisp and coherent mathematical arguments, to explain their solutions clearly, and to sustain their effort while exploring some of the classic and famous challenging mathematical problems. After Algebra II Challenge, students will either take Precalculus or Precalculus-Honors

Topics in Precalculus and Finite
(Grade 11; Prerequisite: Algebra II; 4 periods/week; full year, 1 credit)

This course has two central goals: to teach students to think and communicate logically and to teach students a particular set of mathematical facts and how to apply them. Topics of study include systems of linear equations and matrices, matrix algebra, regression lines, exponential functions, logarithmic functions, and trigonometric functions. Real world applications of these topics are emphasized. A unit on the mathematics used in finance increases the students' financial literacy and is intended to help students make prudent financial decisions. This course is designed to be a strong bridge between Algebra II and Precalculus, helping students to be thoroughly prepared for all their future mathematical studies.

Precalculus
(Grades 11-12; Prerequisite: Algebra II; 4 periods/week; full year; l credit)

This course embraces a thorough study of the advanced mathematics needed for calculus, including in-depth study of these major families of functions: exponential, logarithmic, trigonometric, polynomial, and rational. Mastery of linear and quadratic functions is assumed from previous study, as are complete and sound algebraic skills. There is much emphasis on graphing all functions studied. In addition to graphing, properties, and applications of each kind of function are studied. Other topics studied may include nonlinear inequalities, polar graphing, conic sections, and parametric equations. Upon success completion of Precalculus, students will take Calculus, AP Calculus, or Statistics.

Precalculus-Honors
(Grade 11; Prerequisite: Algebra II; 4 periods/week; full year; 1 credit)

This rigorous and fast-paced course covers the advanced mathematics required for calculus. Emphasis is placed on the ability to graph and analyze exponential, logarithmic, rational, and polynomial functions. An in-depth study of trigonometry includes both unit circle and right triangle approaches, all major families of identities, inverse trigonometric functions, graphing, equation solving, and applications. Detailed units on nonlinear inequalities, proof by induction, parametric equations, polar graphing, and conics are also covered. Most of the theorems used are proven in class. Students should be able to recall concepts covered in Algebra II and Geometry and are expected to synthesize material readily, to collaborate and communicate effectively, and to use format and notation in their written solutions appropriately. Upon success completion of Precalculus, students will take Calculus, AP Calculus, or Statistics.

Calculus
(Grade 12: Prerequisite: Precalculus; 4 periods/week; full year; 1 credit)

This is a full year calculus course that covers functions, limits and continuity, differential calculus, integral calculus, and many applications. Applications are drawn from several fields, including science and business. Students use analytical, numerical, and graphical techniques to model, solve, and communicate understanding of a variety of problems. The course focuses on both conceptual understanding and procedural skill, and an emphasis is placed on the underlying meaning of concepts and the connections among them. This course is designed to provide a good foundation in calculus and is intended to help students transition smoothly into a college calculus course.

AP Calculus AB
(Grade 12; Prerequisite: Precalculus; 5 periods/week; full year; 1 credit, Honors credit)

This is a college level first course in calculus which is rigorous and provides a level of challenge comparable to Precalculus-Honors. There are two primary goals of the course: (1) learn the calculus using analytical, numerical, and graphing techniques, and (2) refine approaches to problem solving. Topics include limits and continuity, differential calculus with applications, and integral calculus with applications and methods of integration. Students are required to take the Calculus Advanced Placement examination (see p. 8, section 8). Most colleges grant placement or credit based on the examination results.

NOTE**:** The Mathematics Department recommends the following for students who are considering AP Calculus-AB: a Precalculus-Honors student should consistently earn scores in the B range or higher; a Precalculus (non-honors) student should consistently earn uncorrected-test scores in the B+ range or higher.

AP Calculus BC
(Grade 12; Prerequisite: Precalculus; 5 periods/week; full year; 1 credit, Honors credit)

This is a college level first course in calculus, which covers a full year of college calculus and is rigorous and fast-paced. There are two primary goals of the course: (1) to learn the calculus using analytical, numerical, and graphing techniques, and (2) to learn approaches to problem solving. Topics include all the topics in AP Calculus AB, as well as improper integrals, polar, vector, and parametric functions, infinite sequences, and power series. Students are required to take the Calculus Advanced Placement examination (see p. 8, section 8). Most colleges grant placement or credit based on the examination results.

NOTE: The Mathematics Department recommends that a Precalculus-Honors student considering AP Calculus-BC earn scores in the A- range or higher. Students in regular Precalculus will not have covered all the prerequisite material.

Multivariable Calculus
(Grade 12: Prerequisite: AP Calculus; 4 periods/week; full year; 1 credit)

This course covers topics in multivariable calculus such as vector algebra, parametric functions in multiple coordinate systems, calculus on vector-valued functions, surfaces, partial derivatives, and path integrals, as well as repeated integrals. The course also exposes students to advanced mathematical topics such as set theory and cardinality, topology, and group theory. Students use analytical, numerical, and graphical techniques to model, solve, and communicate understanding of a variety of problems. The course focuses on both conceptual understanding and procedural skill, and an emphasis is placed on the underlying meaning of concepts and the connections among them. Class discussions and collaborative work are an integral part of the course.

Statistics
(Grades 11-12; Prerequisite: Algebra II; 4 periods/week; full year, 1 credit)

Statistics, the study of data analysis and data-based reasoning, plays an increasingly vital role in virtually all professions and fields of study. This course introduces students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Data sets used in this course are drawn from many facets of life and published research in both hard sciences and the social sciences. The TI-84+ calculator, with its statistical operations, is used regularly to support class investigations. In addition, statistical applications may be used in class and for project work. Students who wish to take the Advanced Placement Statistics examination are well prepared to do so as the course covers all topics on the syllabus.

Economics
(Grades 11-12; Prerequisite: Algebra I; 4 periods/week; full year; 1 credit)

This course offers an introduction to the study of economics with a focus on macroeconomics. Class time and independent work will include a mix of lectures, activities, readings, videos, written exercises, and online resources; we will incorporate current events whenever possible. An introduction to economic thinking and the economic forces at work around us will help students be more educated consumers of goods/news/data and more informed participants in the local/national/world economy and the democratic process.

Over the course of the school year, students will examine relationships among broad economic aggregates such as national income, saving, investment, consumption, employment, and the money supply and learn how measures such as GDP, CPI, unemployment, and trade balances are defined, calculated, and used to assess the health of the macroeconomy. The interactions of market forces, government intervention, and Federal Reserve actions to shape monetary and fiscal policy will be a major focus. The course also includes a unit on personal finance and career development. Coursework will prepare interested students to take the AP Macroeconomics exam.

SCIENCE

JBS Graduation Requirement: Two laboratory Science courses.

The Science department offers a variety of science experiences. Students are introduced to the richness and excitement of understanding the natural world. The curriculum is designed to be relevant to students' lives, and also to provide the foundation for further study of the more theoretical and abstract concepts of biological, chemical, and physical phenomena.

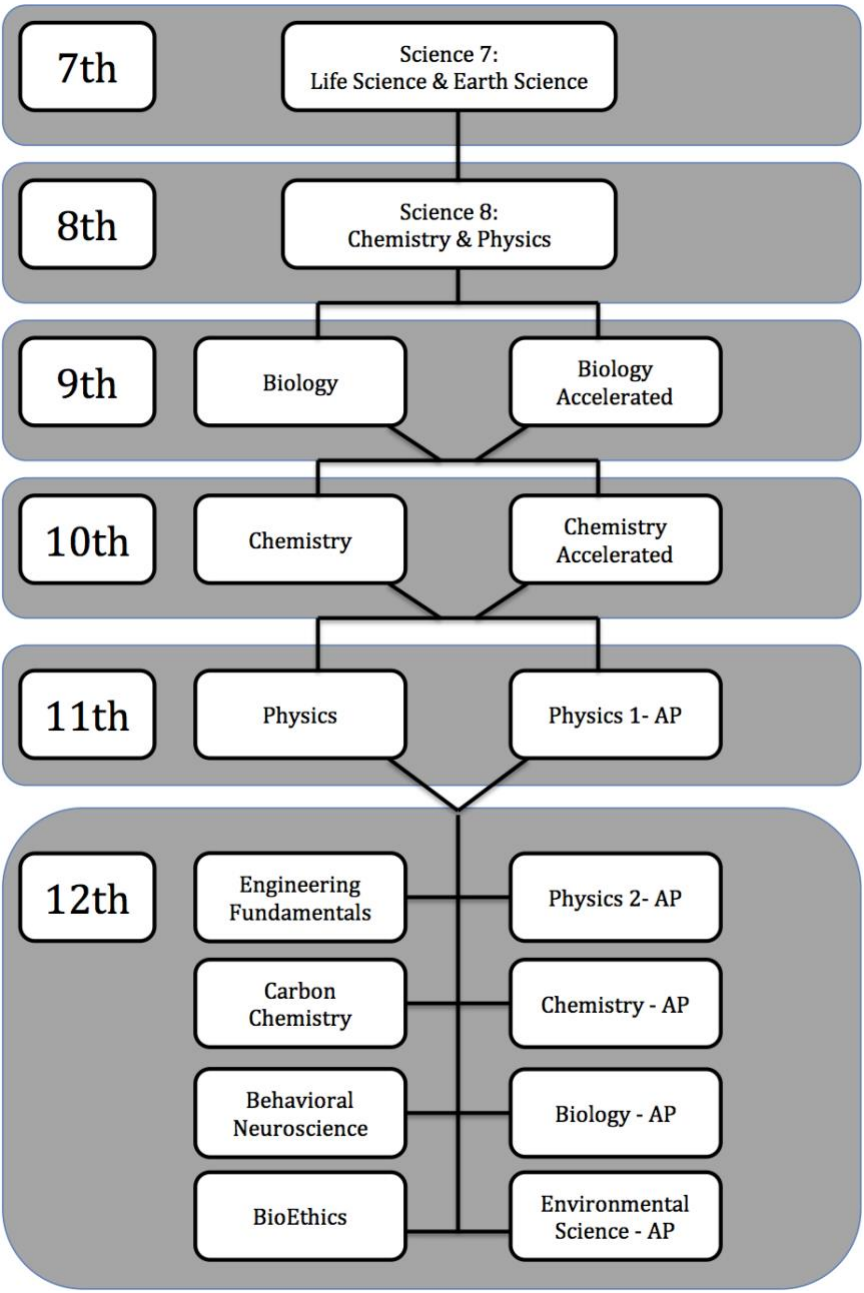
Laboratory work is an integral part of every science course. Students learn in the early grades to observe carefully, collect accurate data, and draw scientific conclusions. Students in the introductory high school sciences and the Advanced Placement sciences spend from five to seven periods per week (depending on the specific course) in the science classroom to accommodate both double period laboratory activities as well as lectures and discussion sessions. Those taking an Independent Study work individually with a science teacher-mentor to study a topic of interest through in-depth analysis, experimentation and research.

The sequence of courses in grades nine through twelve ensure that all students are presented the fundamentals of biology, chemistry and physics in their first three years of high school. In their junior and senior years, students may elect to take an Advanced Placement science course or a class on a topic of interest.

**NOTE: The number of sections scheduled for AP courses and senior science electives is determined by the number of sections that must be scheduled for regular courses and by AP enrollment projections. While every effort will be made to enroll students in their preferred courses, if enrollment requests exceed class capacities, some students may not get their first choice.

The flow chart on the following page illustrates the typical sequences of science courses (exceptions to these sequences are possible):

TYPICAL SCIENCE COURSE SEQUENCES



Science 7: Principles of Life Science and Earth Science
(Required; 4 periods/week, full year)

Understanding and working with scientific exploration is central to the study of all sciences. Thus, students in both the Life Science semester and the Earth Science semester participate in a mixture of observational, directed, and inquiry-based laboratory activities and experiments. Students generate testable questions, work with and design-controlled experiments, take measurements, organize data, draw conclusions, and present results in written and oral formats. The development of science and study skills such as outlining, note taking, keeping a class notebook, data graphing, and analyzing graphs are given particular attention throughout the year. Life Science includes topics on features of living things, cell structure and function, evolution and classification, and the animal kingdom while the Earth Science semester studies earth structure, rocks and minerals, and plate tectonics.

Science 8: Principles of Chemistry and Physics
(Required; 4 periods/week, full year)

Chemistry and Physics are each studied for one semester. Chemistry includes topics on classification of matter, the model of the atom, chemical reactions, and an introduction to acids and bases. Particle models of the states of matter and simple chemical reactions are utilized. Physics studies the motion of bodies, forces and interactions, and the energy involved with physical systems. Laboratory report-writing, data gathering, graphing, observational skills, organizational skills, concept mapping, and study skills are emphasized throughout the semesters. Oral presentations and long-term projects emphasize planning ahead and cooperation with peers.

Biology
(Grades 9-10; 6 periods/week, full year; 1 credit)

This course provides a comprehensive overview of the central concepts of biology: cell structure and processes, genetics, human physiology, evolution, ecology and the diversity of life. Each week four periods are spent in the laboratory, carrying out experiments and investigations to enhance understanding and application of biological concepts. The remaining two are devoted to lectures and activities that include: computer labs, presentations, data analysis, cooperative learning, simulations, modeling, and discussions. Students are also required to participate in team projects and group explorations that involve using scientific method skills and writing formal lab reports. The course culminates in the spring with a four-day trip to Drey Land for a field ecology study.

Biology Accelerated
(Grades 9-10; 7 periods/week, full year; 1 credit)

This course covers the similar general topics as Biology but examines each area at a greater level of depth and detail, and proceeds at a faster pace. It provides a comprehensive overview of the central concepts of biology including cell structure and function, DNA and genetics, human and plant physiology, evolution, ecology and the diversity of life. Each week four periods are spent in the laboratory, carrying out experiments and investigations using the scientific method, while the remaining three are devoted to the exploration and discussion of new material. The ecology unit culminates in the spring with a four-day trip to Drey Land for a field ecology study. Biology Accelerated is the appropriate course for students with strong math and reading abilities who already have well developed study habits and organizational skills.

NOTE: Students receive recommendations from the Science Department with their Spring Updates. Recommendations are carefully considered by the department and are based on a number of factors, including input from current science teachers and grades in current math courses (i.e., Science Department recommends that students considering Chemistry Accelerated should have completed Geometry Accelerated with at least B's for both semesters. Geometry students should have earned at least A-'s for both semesters.) Students who are not recommended for Chemistry Accelerated are strongly discouraged from enrolling in this course and must meet with the science department chair to obtain a signature if they intend to enroll against this recommendation.

Chemistry
(Grades 10-11; Prerequisite Biology; 6 periods/week, full year; 1 credit)

This course introduces students to the study of our physical world at the atomic level through an active experimental approach. The classic essential topics of atomic structure, reactions and equations, chemical calculations and the mole, gas laws, periodicity, and acid-base chemistry are covered as well as recent topics related to chemistry's role in protecting and sustaining the environment. Problem solving is a major component of chemistry as well as laboratory investigations, lectures, demonstrations and reading assignments. Students make use of technology as a tool for analyzing data through graphing programs and take advantage of multiple web-based learning activities. Students are expected to have experience with both word processing and computer graphing programs. This course meets the needs of any student desiring a general background in chemistry.

Chemistry Accelerated
(Grades 10-11; Prerequisite: Biology; 7 periods/week, full year; 1 credit)

This course is appropriate for students with strong study skills and for future science majors. The work for the year is organized around key concepts and principles, which are preparatory for future science courses. These fundamental principles are often developed on the basis of experimental data and quantitative reasoning in the laboratory. Some experiments utilize computer-based data collection technology while others use more traditional methods for collection. Lectures, demonstrations, reading assignments, and problem sessions emphasize the chemical bond, quantum model of the atom, periodicity of the elements, thermodynamics, nuclear chemistry, acids-bases, gas laws, oxidation-reduction reactions, stoichiometrics, and the mole concept. Animations, tutorials and simulations serve to enrich and clarify ideas. This course examines more topics, requires a deeper understanding of chemical concepts, relies heavily on mathematical explanations, and proceeds at a faster pace than Chemistry.

NOTE: Students receive recommendations from the Science Department with their Spring Updates. Recommendations are carefully considered by the department and are based on a number of factors, including input from current science teachers and grades in current math courses (i.e., Science Department recommends that students considering Chemistry Accelerated should have completed Geometry Accelerated with at least B's for both semesters. Geometry students should have earned at least A-'s for both semesters.) Students who are not recommended for Chemistry Accelerated are strongly discouraged from enrolling in this course and must meet with the science department chair to obtain a signature if they intend to enroll against this recommendation.

Physics
(Grades 11-12; Prerequisite: Chemistry and Algebra II (or concurrent registration); 7 periods/week, full year; 1 credit)

This course in physics includes the study of motion, forces, energy, momentum, waves, and sound. Students use a wide variety of graphical and pictorial tools, in addition to mathematics, to describe, to interpret, and to make predictions about physical phenomena. The curriculum is built upon a small number of essential physics concepts which are developed in depth and with conceptual coherency. Special projects give students opportunities to analyze complex situations and develop critical thinking skills.

Physics 1-AP
(Grades 11-12; Prerequisites: Algebra II, Chemistry; 7 periods/week, full year; 1 credit, Honors credit)

This first-year course in physics covers motion, forces, energy, momentum, waves, and sound. This course employs a rigorous text and has a stronger emphasis on mathematical analysis than the regular Physics course, including a greater degree of difficulty in the problems and a greater use of trigonometry. Students enrolled in the course are expected to achieve at a level sufficient to earn college credit, and thus are required to take the Advanced Placement examination in May (see p. 8, section 8).

NOTE: Students receive recommendations from the Science Department with their Spring Updates. Recommendations are carefully considered by the department and are based on a number of factors, including input from current science teachers and grades in current math courses. The Science Department recommends the following for students who are considering Physics 1-AP: Students should have completed the second year of the Algebra sequence and have a thorough facility with algebraic equations and graphical analysis. This typically corresponds to earning at least a B+ in Algebra II Challenge for both semesters or at least an A- in Algebra II Accelerated for both semesters. A Chemistry Accelerated student should have at least B's in both semesters and a Chemistry student should have at least B+'s in both semesters. Students who are not recommended for Physics 1-AP are strongly discouraged from enrolling in this course and must meet with the science department chair to obtain a signature if they intend to enroll against this recommendation.

Independent Study-Science
(Grades 11-12; Prerequisites: approval by the teacher, department chair, and principal; minimum of 2 periods/week; 1/3 credit)

Independent study on a scientific topic of interest to the student may be explored under direct supervision of a teacher in the department. A general idea or area of interest must be discussed with the supervising teacher before approval can be granted, and the student must be self-disciplined and committed to working on the project. The student must complete the Independent Study Contract during the first week of the semester in which the work begins. Independent study focuses on areas of science not taught in other available science courses.

Behavioral Neuroscience
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Biology and Chemistry; 5 periods per week; full year; 1 unit)

This course examines the relationship between both human and animal behavior and the nervous system. The course begins by exploring evolutionary processes, the basic physiology of the neuron, the brain, and the endocrine system. This introduction is followed by investigations of human and non-human behavior from both an evolutionary and a nervous system perspective. Topics include sensation and perception, the biological mechanisms of drug action, learning and memory, evolutionary adaptations of behavior, sexual behavior, motivation and emotion, social behavior, and behavior disorders. Students spend one double period per week in the laboratory performing neurophysiology experiments, exploring neuroanatomy, performing experiments in animal behavior (such as conditioning rats and evaluating habitat preferences in select animals); and observing animal behavior at the zoo. During the second semester, students must devote portions of two or more free periods per week to rat training.

Biology-AP ** (see note on p. 47)
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Biology, Chemistry; 7 periods/week, full year; 1 unit, Honors credit)

This course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their freshman year. The two main goals are to develop a conceptual framework for modern biology and to gain experience and practice of biology through experimentation and inquiry. The content explores and weaves together the four big ideas of biology: (1) Evolution drives the diversity and unity of life; (2) Organisms utilize energy and molecular building blocks; (3) Organisms retrieve, transmit and respond to information; and (4) Biological systems interact and these interactions create complex properties. By questioning, hypothesizing, observing, performing experiments, graphing, and statistically analyzing data, and drawing logical conclusions during two double-period laboratories per week, students will develop and refine testable explanations and predictions of natural phenomena. Students enrolled in the course are expected to achieve at a level sufficient to earn college credit. Students are required to write the Advanced Placement examination in May (see p. 8, section 8).

Carbon Chemistry
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Algebra II, Biology, Chemistry; 5 periods/week, full year; 1 credit)

This chemistry course is designed as an exploration of organic chemistry topics for students from either level of sophomore chemistry. The course will introduce students to the IUPAC naming system for a wide variety of carbon compounds and their functional groups. Extraction and isolation of historically interesting compounds from plants will guide the lab activities during the first semester. Synthesis of molecules and organic reactions will be the focus of the second semester. An exploration of common chemical reactions and the interplay with three-dimensional structures will introduce students to the significance of carbon-based chemistry. Related topics of biodiesel production and quality control, food and medicine will be explored. Students will be scheduled for one double period per week in the chemistry laboratory performing student centered laboratory work.

Chemistry-AP ** (see note on p. 47)
(Grade 12; enrollment limited to 18 students per section; Prerequisites: approval of the department chair, Chemistry (preferably Accelerated), Precalculus); 7 periods/week, full year; 1 unit, Honors credit)

This course meets the objectives of a freshman chemistry course on the college level. The emphasis is on the mathematical and theoretical aspects of inorganic and organic chemistry and on training in fundamentals needed for future work in chemistry or in related fields. This course differs from the usual secondary school course in the kind of textbook used, the amount and kind of laboratory work, the emphasis on mathematical formulation of principles, and in the special consideration given to the arithmetical solutions of problems. Laboratory work includes college first-year experiments in inorganic chemistry plus extended independent studies in qualitative analysis and complex synthesis. This course follows the recommended program for chemistry published by the College Board. Students enrolled in the course are expected to achieve at a level sufficient to earn college credit, and thus are required to take the Advanced Placement examination in May (see p. 8, section 8).

Engineering Fundamentals: A Project Based Introduction
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Biology, Chemistry, Physics; 5 periods/week; full year; 1 credit)

The field of engineering uses the principles of math and science to solve problems faced by people and the planet. In the first semester, students learn tools and strategies of the design process, with emphasis on understanding the problem well before beginning to design a solution. They also study the basics of fluid mechanics, which applies to most engineering disciplines either directly or by analogy. They immediately apply these principles to designing a water supply system for an under-resourced community in rural Central America. This is a ten-week collaboration with an international sustainable development agency called Global Brigades. Often, the class works together on fundraising activities to help make their design a reality for the community. In the spring semester, students spend a month studying aspects of the forward-looking fields of biotechnology and digital connectivity. The remainder of the spring semester is focused on a capstone project, in which students function as a project team to solve another real problem with a societal benefit, with a St. Louis area agency as the client. The textbook for this class, "Engineering: A Project-Based Introduction," is used in the first-year design course at Harvey Mudd College.

Environmental Science-AP** (see note on p. 47)
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Biology, Chemistry, Physics; 5 periods/week; full year; 1 credit; Honors credit)

AP Environmental Science is a college level integrated study of ecology and environmental science. The course provides students with the scientific principles, concepts, and methodologies required to understand the fundamental concepts of ecology; to identify, analyze, and evaluate environmental concerns both natural and human-made; and to examine possible solutions for resolving these environmental issues. Environmental science is an interdisciplinary study that draws from biological, physical, chemical, and earth sciences as well as social sciences including economics, politics, and sociology. One double period per week is devoted to laboratory and/or field investigations. The goal of these investigations is to complement the classroom portion of the course by allowing students to learn about the environment through firsthand observations and experiments. Examples of investigations include: collecting and analyzing Deer Creek water and JBS prairie soil samples, conducting long term studies on local ecosystems, constructing and analyzing model windmills, and visiting local sites of environmental interest. Students enrolled in the course are required to take the Advanced Placement exam and are expected to achieve at a level sufficient to earn college credit (see p. 8, section 8).

Physics 2-AP**(see note on p. 47)
(Grade 12; enrollment limited to 18 students per section; Prerequisites: Precalculus, Biology, Chemistry, Physics, and approval of Dept. Chair; 6 periods/week, full year; 1 credit, Honors credit)

This second-year course is the continuation of the AP Physics sequence that covers the topics of fluids, thermodynamics, electricity, magnetism, optics, and modern physics, completing the overview of material required in a typical undergraduate introductory physics class. This course employs a rigorous text and a strong emphasis on mathematical analysis of physical phenomena. Students enrolled in the course are expected to achieve at a level sufficient to earn college credit, and thus are required to take the Advanced Placement examination in May (see p. 8, section 8).

Bioethics
(Grade 12; enrollment limited to 16 students; 4 periods/week; full year; 1 credit)

This seminar explores the political and ethical decisions behind some recent and some historical scientific issues. Led by both a science and a history teacher, students explore the science behind the issues before confronting the political and ethical ramifications of them. Students are evaluated (written and orally) on their knowledge of the science and its political and ethical implications and are expected to be active participants in both segments of the class - the scientific component as well as the discussion component, which are weighted equally. Contemporary issues covered may include: gene therapy, cloning, medical marijuana, the genetics of race, HIV and AIDS, and the ethics of human and animal experimentation. Historical issues addressed may include: the use of research by Nazi scientists, the Tuskegee experiments, and the human radiation experiments. Students will choose their own topic for a group presentation in the spring. A sample approach follows: *if the topic was stem cells, students would learn what various types of stem cells are, and what applications they might have, before considering ethical implications of such research, and whether or not the government should fund research into stem cells.*

PERFORMING ARTS

JBS Graduation Requirement: Four courses in the Arts: 3 in the Fine Arts (Visual or Performing) and 1 in the Practical Arts

MUSIC

The belief that a student's music education is equally vital and no less demanding than other academic subjects guide the Music Department's philosophy. The study of music gives us the ability to communicate the ideas and emotions of the human spirit. At the same time, a growing body of research indicates that music education provides significant cognitive benefits and bolsters academic achievement. Students in the music program learn to work cooperatively, pose and solve problems, and forge the vital link between group effort and quality of result. These skills and attitudes, not incidentally, are vital for success in the 21st century workplace.

7th and 8th grade students may select Band, Chorus, or Orchestra. Students in high school may choose from a variety of ensembles, which reflect their interest and ability level. Complete descriptions of each follow. Some ensembles require instructor approval and/or an audition. Students in band are required to furnish their own instruments.

Full Year Participation

Since the year's program must be planned well in advance of execution and is done with the understanding that performers are available for the work when it is scheduled, this can only be done successfully if performers are in the organization for the complete school year.

Seriousness of Purpose

A musical organization develops technically and artistically only as individual members apply themselves seriously to the task of learning and perfecting skills and music literature. This implies diligent and systematic practice both at school and home. Private music instruction is of great value to the performer.

Rehearsals

A student must be present at rehearsals with the equipment needed. For instrumentalists, this means having the instrument in hand; for vocalists, bringing their music at all times.

Performances

All the members of performing organizations have the responsibility to fulfill their parts in performance. The ensemble is based on co-operation of the highest order. Absences affect the total membership and its performance in any piece. Deficient renditions result if key performers fail to produce their parts. Excuses are not granted except for extreme emergencies and unusual situations. The directors MUST be notified in advance of a given performance when a student is excused.

If a student performer agrees to the above statements, genuine artistic growth occurs and the integrity of the group is assured.

Vocal

Chorus 7/8
(7th and 8th grade, no audition required, 3 periods/week; full year)

Students develop their vocal skills and learn basic note reading and sight-singing through group singing performance. This choral group is open to all 7th graders and all 8th grade students, regardless of whether they have previously taken Chorus in 7th grade. The chorus performs different styles of choral music in two and three-part voicing. Students perform at least once per semester. Classes are split by gender.

JBS Voices
(Grades 9-12; by audition; 3 periods/week; full year; 1/2 credit)

JBS Voices focuses on developing both individual vocal technique and group choral singing skills. The group prepares one concert each semester. Optional activities may include participation in the traditional Holiday program and in contests or festivals.

Men's A Cappella
(Grades 9-12; by audition; 2 periods/week; full year; 1/3 credit)

This chorus explores music written specifically for men's voices, including styles as diverse as pop, doo-wop, jazz, barbershop harmony, and plainchant. The course focuses on developing vocal techniques and skills in listening and in singing in close harmony. Students perform in a least one concert per semester. Optional activities may include participation the traditional Holiday Program and in contests or festivals.

Cabaret (Not offered in 2022-2023)
(Grades 9-12; departmental approval; Grades 9-10 receive priority 2 periods/week; full year; 1/3 credit;)

Cabaret is the art of storytelling through song performance. In cabaret, performers are not playing characters, but are instead sharing their own personal stories and experiences with their audience through song. Students in this class will learn about song choice, song analysis, appropriate arrangement for their narrative, how to write and perform patter, how to deconstruct lyrics, and more. For the final performance, students will craft "mini" cabarets, with each performer singing 3-6 songs that create a full story arc. Participation in a final performance is required.

Songwriting
(Grades 9-12; department approval required – students must play guitar or piano; 2 periods/week; full year; 1/3 credit)

This course is designed for students interested in exploring the craft of songwriting. Students will explore basic theory, chord progressions, song structure, lyric writing, and performance preparation. They will study current pop music and learn what makes a song successful in today's media market. Students will produce at least one fully notated and recorded original song.

Instrumental

Junior Orchestra
(Grades 7-8; by audition; 3 periods/week; full year)

This class is offered to students with two years' prior experience reading music in a string ensemble or by instructor approval. Students prepare music for at least one concert per semester. Optional activities include participation in the traditional Holiday Celebration. Piano and guitar are not directly offered in JR orchestra. These students are encouraged to learn a new/second instrument in Beginning Band. As they advance, they can then double on piano/guitar if certain repertoire calls for it. If a student plays classical guitar, they may elect to play classical guitar in JR orchestra (by audition / teacher approval).

Beginning Band
(Grade 7-8; no audition required; 3 periods/week; full year)

Students who have not previously played a band instrument may begin learning flute, clarinet, trumpet, or trombone. Students must provide their own instruments. Instruments offered may be subject to change. If students need guidance with instrument purchase or rental, please contact Tim Baker. Students will perform in one fall and one spring concert. Piano and guitar are not directly offered. These students are encouraged to learn a new / second instrument in Beginning Band. As they advance, they can then double on piano/guitar if certain repertoire calls for it. If a student plays classical guitar, they may elect to play classical guitar in JR orchestra (by audition / teacher approval).

Bomber Band
(Grades 7-8; by audition; 3 periods/week; full year)

This class is offered to students with prior experience on an instrument. Students continue studying the fundamentals of the instrument as well as concert repertoire. Genres may include concert band and jazz band literature. Instruments offered are flute, oboe, clarinet, trumpet, alto sax, tenor sax, baritone sax, French horn, trombone, baritone, tuba, electric bass and percussion. Instruments offered may be subject to change. Students will perform in one fall and one spring concert. Class may be split into multiple sections.

Orchestra
(Grades 9-12; by audition; 3 periods/week; full year; 1/2 credit)

Senior Orchestra provides a performance opportunity for students who play string, woodwind, brass, and percussion instruments. Genres include compositions from the Classical, Pop, Broadway, and World Music traditions. Mastery of performance fundamentals will be emphasized during rehearsals. Senior Orchestra will prepare one concert each semester. Optional activities include participation in the traditional Holiday Program, District and State solo and ensemble festivals, All-District Band for Woodwind, Brass and Percussion players, All-State Orchestra and/or Band for String, Woodwind, Brass and Percussion players, and performance tours or festivals out of town.

Jazz Band
(Grades 9-12; departmental approval required; 3 periods/week; full year; 1/2 credit)

In Jazz Band, students master the skills needed to perform jazz in the idioms of Blues, Swing, Latin, Fusion, Afro-Cuban, and other contemporary styles. Jazz improvisation is emphasized. Students will prepare one concert each semester. Optional activities include solo improvisation in performance, participation in the solo and ensemble festival, and All-District and All-State Bands. Class may be split into multiple sections.

History and Theory

Music History
(Grades 9-12; 2 periods/week; full year; 1/3 credit; E/S/U grading)

The evolution of western classical music is explored through music from the ancient Greeks to today's minimalists. Each period includes a brief explanation of the composers and styles under scrutiny, introducing a series of recorded illustrations. Students listen to sacred and secular music, lieder and opera, and instrumental and orchestral works. The development of different genres is examined, from folksong to "nationalist schools" of composition and beyond. Guest lecturers include visiting composers, and opportunities are provided to attend live performances by professional ensembles.

THEATRE, SPEECH AND DANCE

JBS Graduation Requirement: Four courses in the Arts: 3 in the Fine Arts (Visual or Performing) and 1 in the Practical Arts

Speech 7
(Required; 1 period/week)

Students prepare short, original oral presentations. Emphasis is placed on enunciation, poise, and choice of language. Through practice before a critical audience of their peers, students gain skill in expression and become accustomed to speaking with confidence in public.

Acting 8
(Required, grade 8; 1 period/week; 1 semester)

Through games, ensemble-building activities, and individual performance projects, students work to develop the fundamental skills of the actor: concentration, relaxation, self-discipline, and playfulness.

Debate 8
(Required; 1 period/week; 1 semester)

This introductory course can be seen as a continuation of many aspects of the 7th grade speech course in that students strive to refine their ability to speak confidently in public. Students deliver speeches, write resolutions, and debate one-on-one and in teams using current-event topics and credible sources. The ability to develop educated opinions and conduct a civil exchange of ideas is an essential aspect of this course.

Intermediate Debate*
(Grades 9-10; limit 16; 2 periods/week; 1 semester course offered both semesters; 1/4 credit)

This intermediate course is designed for students who have debate experience and wish to continue their study of the discipline. Students carry out individual and team debates as well as learn about techniques and strategies for effective discourse. Question and answer techniques are acquired, as are different forms of argumentation and rebuttal. A focal point of this course is an emphasis on research skills and the use of concrete evidence when debating.

Advanced Debate*
(Grades 11-12; limit 16; 2 periods/week; 1 semester course offered both semesters; 1/4 credit)

This advanced course enhances and hones debate and judging techniques; students debate in teams, and sophisticated research and resolution-writing are expected. Students focus on policy debate and work with specific topics established by the National Forensic League.

Public Speaking*
(Grades 9-12; 2 periods/week; 1 semester course offered both semesters; 1/4 credit)

This course gives further practice in public address. With current events and personal interest as a focal point, students generate their own material for original speeches to be delivered in a variety of styles. Memorization is not required. The semester will conclude with a final speech, conceived and presented in emulation of a T.E.D. Talk.

*NOTE: In Speech and Debate courses for grades 9-12 preference is given to students who

a) signed up last year but were not given a slot in the course
AND
b) have not taken the course before.

Unless space is available, no one may enroll in both semesters in one year.

Acting 9-10
(2 periods/week, full year; 1/3 credit)

This course covers a range of activities including monologues, scene work, and audition technique and preparation. Four "production credits" are required by year's end. (*see endnote on Production Credits)

Improvisation
(Grades 10-12; Prerequisites: Acting 9-10 or Theatre 9-10; 2 periods/week; 1 semester; 1/4 credit)

Theatre skills are developed through intensive use of theatre games and non-scripted material. The course emphasizes stretching the boundaries of the performer's ability in voice, movement and imagination. Two "production credits" are required by semester's end. (*see endnote on Production Credits)

Acting 11-12
(Prerequisites: Acting 9-10 or Theatre 9-10; 2 periods/week; full year; 1/3 credit)

This course continues with training in the theatre disciplines. The first semester is dedicated to styles of acting, with students learning various styles (i.e. Classical, Elizabethan, Naturalistic) through work with monologues. The second semester is a scene study workshop with special attention paid first to Chekhov and then to a variety of contemporary writers. By the end of this course, all students will have prepared a professional-caliber audition. Four "production credits" are required by year's end. (*see endnote on Production Credits)

Cabaret (Not offered in 2022-2023)
(Grades 9-12; departmental approval; Grades 9-10 receive priority 2 periods/week; full year; 1/3 credit;)

Cabaret is the art of storytelling through song performance. In cabaret, performers are not playing characters, but are instead sharing their own personal stories and experiences with their audience through song. Students in this class will learn about song choice, song analysis, appropriate arrangement for their narrative, how to write and perform patter, how to deconstruct lyrics, and more. For the final performance, students will craft "mini" cabarets, with each performer singing 3-6 songs that create a full story arc. Participation in a final performance is required.

Theatre Production
(Grades 9-12; 2 periods/week, full year; 1/3 credit)

The course is designed to train students for technical roles in support of the performing arts. Students gain a background in the technology of lighting and electricity, rigging, sound reproduction, construction, and design. The history of theatre technology is covered, with studies of the form of production space emphasized. Safety is stressed in all aspects of the course. The majority of the class time is laboratory-oriented, in support of Theater/Dance productions. Students may pursue a special area of interest (lights, sound, set and prop construction), in which individualized assignments are arranged with the instructor. These may include, but are not limited to, lighting design, sound design, stage management, prop and set design, technical direction, and stage carpentry and rigging.

Playwriting
(Grades 10-12; Prerequisite: Theatre 9-10, departmental approval; 2 periods/week; full year; 1/3 credit)

Through creative writing exercises and reading a variety of scripts, this seminar style course will introduce the fundamental elements of crafting dramatic narrative and creating characters for the stage. Students will write monologues, scenes, and an original one-act play. Performances of completed pieces and works in progress will be an important part of the creative process.

The Great American Musical
(Grades 9-12, Prerequisite: departmental approval, 2 periods a week; full year)

This course will offer students the opportunity to explore the evolution of the American musical from its folk roots to the grand scale Broadway productions of today. Students will examine composers, lyricists, producers, directors, choreographers, and performing artists who have contributed to the development of musical theater, as well as an in-depth study of seminal works. There will be very occasional out-of-class assignments, such as short readings or online viewing or listening sessions, but this work will not significantly increase the weekly workload. Depending on offerings of local companies in a particular season, the class will attend a professional production at some point during the year.

*NOTE: *Production Credits* are easily obtained by participating in some aspect of the Theater/Dance production season. Examples of activities that earn a credit include, but are not limited to: ushering/house managing a performance; assisting with costumes and props; working on set construction; working on light & sound for a production; being a member of the cast/crew for a production. Production credits are required of all elective performance and appreciation classes (Theatre 9-10, Theatre 11-12, Improvisation). Production credits are not required for Theatre Production, The Great American Musical, and Playwriting.

Dance – Instructional
(Grades 9-12; Fitness)

Instruction in various genres and forms of dance is available as a fitness option during the fall and spring seasons. The program provides training for intermediate dancers and also serves as an appropriate introduction for beginners with no previous experience. (See PE/Athletics)

Dance – Performance
(Grades 9-12; Team Sport)

Students rehearse for and perform in the annual Dance Show as a team sport option during the winter season. Dancers of all abilities and experience levels are welcome as performers, and experienced upper school students can also work as choreographers. (See PE/Athletics)

FINE ARTS

JBS Graduation Requirement: Four courses in the Arts: 3 in the Fine Arts (Visual or Performing) and 1 in the Practical Arts

The Fine Arts department offers a structured introduction to the visual arts and to the techniques, methods, and concepts common to the creative disciplines. We aim to develop visual literacy, encourage artistic perception and cultivate resourcefulness and character. Our program guides the young artist through exercises that demand resourcefulness and close observation to help develop the fundamental skills of visual perception. These same skills are essential to all forms of cognition and vital to developing flexible thinkers. Most importantly, and beyond the pedagogy of art, we want to share with young artists the power and beauty of the visual arts and help them understand its potential in their lives.

7th and 8th Grade Fine Arts

The Fine Arts Foundation Program consists of a 2-D and a 3-D class during both 7th and 8th grade. There are five important areas for growth that we explore in the Foundation Program and all Fine Arts classes: perception, resourcefulness, character, craftsmanship and creativity. We vary our activities, but generally cover complementary skills and ideas in 2-D Art and 3-D Art.

2-D Art 7
(Required; 2 periods/week; 1 semester)

2-D Art 7 is arranged to help students increase their powers of observation through a variety of drawing exercises, and the recording of visual notes. Students will learn about the history of Western linear perspective, the Italian Renaissance, and how to use both theoretical and observed one and two-point perspective to organize space. Use of line, value, and color mixing are covered through a wide use of materials and applications.

3-D Art 7
(Required; 2 periods/week; 1 semester)

3D art has height and width as a painting does, plus a third dimension – depth. The objectives of 3D Art are to begin to develop technical abilities involving sculptural form and to be introduced to the elements and principles of strong three-dimensional design. 7th grade students are guided through a variety of activities that include sculpting from observation, hand building and glazing techniques, plaster casting, and wire brazing.

2-D Art 8
(Required; 2 periods/week; 1 semester)

In 2-D Art 8, we review and emphasize the formal concepts and skills taught in 7th grade including observational drawing, linear perspective, composition, color theory, and color mixing. The concept of personal identity is explored through self-portraiture and learning about historical and contemporary portrait artists.

3-D Art 8
(Required; 2 periods/week; 1 semester)

The 8th grade sculpture experience is an extension of the 7th grade foundation program in structure but is broader and deeper in scope. Students are introduced to the role of content and the concept of meaning within art, and how they can express these ideas in their own work. Assignments will complement their 2-D Art 8 experience and include learning to control proportion and composition, and students can expect activities that will challenge their problem-solving skills.

Level I and II Fine Arts Classes

Drawing and Painting I
(Grades 9-12; 2 periods/week minimum for credit; full year; 1/3 credit)

Principles of composition and the fundamental elements of art such as form, line, mark, shape, value, and color are studied through assignments in a variety of subject areas, which include portrait, landscape, figure, and still life. Students draw from observation, disabuse themselves of visual stereotypes, become self-evaluating of their work, and learn how to see. To that end, students are taught observational techniques such as measuring, and are encouraged to draw what they see rather than what they know. Media used in the studio include watercolor, acrylic, pastel, charcoal, ink, and pencil. The studio houses a small library for reference, as the examination of great works of art is a continuing part of study. The program is enhanced through the school's collection of original art works, gallery exhibits and lectures by visiting artists.

Drawing and Painting II
(Grades 10-12; Prerequisite: Drawing and Painting I 2 periods/week minimum for credit; full year; 1/3 credit)

This course expands upon the fundamental theory and practices of art introduced in Drawing and Painting I, and more advanced concepts are explored. All media are available, including tempera, watercolor, acrylic, pastel, charcoal, ink, and pencil. Students are encouraged to take a corrective approach to their work, and to practice vocabulary surrounding visual dialogue as they engage in critique. Students are also encouraged to explore content in their work through creative expression.

Sculpture I
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

Sculpture I is an exploration into the processes and techniques involved in creating sculptural forms. This class delves into the investigation of material, such as plaster, clay, bronze, and non-traditional materials, in addition to conceptual issues and themes related with sculptural art. A variety of projects are considered and used for creative examination. This class is designed to introduce students to the fundamental elements and principles of three-dimensional design. Students should develop a visual vocabulary while learning how to resolve three-dimensional structure and design problems. Students are also introduced to the work of a variety of artists working three-dimensionally.

Sculpture II
(Grades 10-12; Prerequisite: Sculpture I; 2 periods/week; full year; 1/3 credit)

Sculpture II is designed for students to build off the fundamentals learned in Sculpture I. These include: advanced modeling and casting techniques, an exploration of individual style and creativity, and understanding the communicative power of form and materials, including clay, bronze, wood, wax, steel, plaster, foam, etc. By combining these and other sculptural principles and elements, students will learn how to communicate their ideas through three-dimensional form and develop their own aesthetic and conceptual base.

Ceramics I
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

This class will introduce students to the processes and techniques of making vessel-based objects in clay. Students will explore both hand building; pinch, coil & slabs, and the potter's wheel, spending a semester in each concentration. They will be exposed to both historical and contemporary art works and examine how those ideas can be explored in their own work. Students will also investigate a variety of glazing and surface treatments.

Ceramics II
(Grades 10-12; Prerequisite: Ceramics I; 2 periods/week; full year; 1/3 credit)

Building on the foundations taught in Ceramics I, Ceramics II will challenge students to expand on their building skills as well as the concepts that they explore in their work. Both hand building and the potter's wheel will be once again employed in the creation of work, and students will dive deeper into the ideas and projects presented to them. Students will also have the opportunity to pursue individual investigations in their work alongside directed assignments.

Printmaking
(Grades 9-12; 3 periods/week; full year; 1/2 credit)

Students are introduced to a variety of printmaking techniques including etching, engraving, serigraphy, relief prints, book binding, and monotypes. Historical and contemporary issues printmaking are discussed and regular critiques are held. Students are also required to make an edition of prints in order to participate in a print-swap with their peers.

Photography I
(Grades 9-12; 2 periods/week; full year; l/3 credit)

Basic black and white darkroom techniques are taught: exposure, developing, contact printing, and enlarging. Æsthetic issues are explored in relation to the historical development of photography as an art form. Students are asked to provide a 35mm traditional (non-digital) camera of their own.

Photography II
(Grades 10-12; Prerequisites: Photography I; 2 periods/week; full year; l/3 credit)

Advanced, experimental, and alternative photographic techniques are explored with emphasis on the development of personal æsthetic vision. Ideas relevant to the history of photography are presented and discussed.

Intensive Studies: Art
(Grades 11-12; any Level II art class, or multiple Level I 2D & 3D art classes for Grade 12 students, and department approval; 4 periods/week; full year; 1 credit)

This course challenges and channels advanced students' excitement for their work by exploring essential issues in art through guided exercises in both 2-D and 3-D media. The effective use of fundamental elements of design such as perspective, line, gesture, composition, value and color are explored. Discussions, field trips, reports and gallery visits are incorporated so that students may gain a better understanding of the context in which artists, historical and contemporary, create. This course is strongly recommended for the student who wants to develop a portfolio. Requirements include participation in critiques, development of an artist's statement, participation in a show of intensive work in the school's Bonsack Gallery, and generation of independent work along with studio assignments. This course is co-taught by members of the Sculpture and Drawing and Painting faculty.

Intensive Studies: Art - Honors
(Grades 11-12; one year of Intensive Studies: Art and department approval or department approval for Grade 11 students; 5 periods/week; full year; 1 credit)

This course runs in conjunction with the Intensive Art Studies class, builds upon work students completed in Intensive Studies: Art, and continues to challenge students in the creation of their artwork through historical understanding and personal experience. Discussions, field trips, reports, and gallery visits are incorporated so that students may gain a better understanding of the context in which an artist creates. This course is strongly recommended for the student who is considering applying to college Art programs and pursing a degree in an Arts related field. Requirements include participation in critiques, development of an artist's statement, creation of a portfolio of artwork, research and presentations on artists and art movements, presentations of their work to an audience through a lecture and slide presentation, participation in a show of intensive work in the school's Bonsack Gallery, and generation of independent work along with studio assignments. This course is co-taught by members of the Sculpture and Drawing and Painting faculty.

Independent Study: Ceramics
(Grades 11-12; Prerequisites: Ceramics II and departmental approval; 1/3 credit)

Students develop, with their teachers, projects specifically designed to address

their individual needs and interests in ceramics.

Independent Study: Photography
(Grades 11-12; Prerequisites: Photography II and departmental approval; 1/3 credit)

Students develop, with their teachers, projects specifically designed to address their individual needs and interests in photography.

Independent Study: Sculpture
(Grades 11-12; Prerequisites: Sculpture II and departmental approval; 1/3 credit)

Students develop, with their teachers, projects specifically designed to address their individual needs and interests in sculpture.

Classical Mythology in the Arts (for course description, see p. 24)

PRACTICAL ARTS

JBS Graduation Requirement: Four courses in the Arts: 3 in the Fine Arts (Visual or Performing) and 1 in the Practical Arts

The mission of the Practical Arts department is to help students discover new abilities within themselves as they explore the objectives, activities, and projects within the curriculum. The practical arts complement, and in many cases implement, the academic subjects taught in school; the programs incorporate cross-curricular projects wherever possible. In computer science, family and consumer sciences, and industrial technology/engineering courses, students learn skills that serve them well in life and help them to express themselves creatively, technically, and artistically. Practical arts concepts are taught using applied, hands-on activities to develop knowledge of the concepts involved and their applications. Technical problem-solving skills and craftsmanship are a focal point of the curriculum. Students are taught to create and appreciate original ideas and projects.

COMPUTER SCIENCE

Technology Literacy
(Required, grade 7: 1 periods/week; full year)

This course immerses students in the John Burroughs School computing environment, engaging them in a number of projects aimed at building skills needed across the curriculum through 12th grade. Work begins with an overview of computer hardware, including both internal and external components of the machine. Students are then introduced to operating systems, with emphasis on MacOS. Both the GSuite interface and the Canvas learning management system are used throughout the year to ensure students are comfortable with these systems which are essential to daily coursework. The class completes a video editing project which highlights planning, research, online resources, and the use of appropriate citations. In this project, screenshots, text, video, and audio voice overs are incorporated. Students also collect and analyze data using spreadsheets and build skills in photo manipulation and editing. Cross-curricular work with other departments is incorporated whenever possible. Special attention is given to the John Burroughs Acceptable Use Policy, the ethical use of computers and digital citizenship.

Coding Essentials
(Required, grade 8; 2 period/week; 1 semester)

In this course, students explore computational thinking and the fundamentals of programming. This course begins with coding in JavaScript with the p5 library, which allows for easy creation and manipulation of graphical elements. Students cover fundamental programming structures (variables, conditional logic, loops, and functions) through writing a variety of visually interesting projects. More advanced topics like arrays and objects are touched upon as well. The capstone project requires students to leverage and apply what they know in JavaScript by coding an open-ended, interactive, story-based adventure game. Throughout the course, students are reminded of best practices with regard to the JBS Technology Acceptable Use Policy, ethical computer use and digital citizenship.

Programming in Java
(Grades: 9-12; 2 periods/week; full year; 1/3 credit)

This is an elective course for those interested in expanding their knowledge of computer programming. Students explore the object-oriented programming paradigm extensively. Study begins with Greenfoot, a Java development environment that incorporates class libraries for easy visual representations of interacting objects. Through the use of games and simulations in this first part of the course, students are given an initial exposure to objects, methods, variables, conditional logic, looping structures and arrays. Toward the end of first semester, students begin working solely with the Java libraries to create applications while solidifying knowledge of programming concepts. At the end of the course, students revisit Greenfoot to program a final game. This course provides a chance to write computer programs and acquire experience without the demands of a full-credit course.

Programming for the Web
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

Students learn to create web pages using HyperText Markup Language (HTML), Cascading Style Sheets (CSS) and JavaScript, a scripting language used by web developers. Throughout the course, students publish assignments to personalized home pages where they showcase all of their work online. Design and layout techniques are emphasized throughout the course to help students create professional looking sites that are easy and logical to navigate. Students also learn to use responsive design so that page look appropriate on computers as well as tablets and mobile devices. This course provides a chance to write programs and acquire experience without the demands of a full-credit class.

Advanced Computer Science: Mobile Application Development
(Grades 9-12; 4 periods/week; full year; 1 credit)

NOTE: This course does not fulfill the Practical Arts graduation requirement.

This is a full credit, non-AP course in which students learn to combine object-oriented programming and user interface design to write programs for mobile devices. Boolean logic, data structures and design thinking are emphasized. Throughout the year, students plan, program and test their own mobile applications from scratch. This course provides the opportunity to further explore computer science concepts learned in our other course offerings, but is also accessible to those who are new to the field of computer science. This course is an option for students who are unsure if they can handle the rigors of AP Computer Science, but it can also be taken after completing the AP course. Instruction is differentiated to meet the needs and levels of all students in the class. Access to equipment or software outside of class is not necessary for this course. Students make use of a free developer account provided by Apple, as well as a professional account provided by the school.

Computer Science-AP
(Grades: 11-12; Prerequisites: concurrent enrollment in Precalculus or higher; 4 periods/week; full year; 1 credit)

NOTE: This course does not fulfill the Practical Arts graduation requirement.

Students learn the basics of object-oriented programming in the Java language, following the curriculum outlined by the College Board. Topics include object-oriented programming, control structures, classes, inheritance, arrays, ArrayLists and other data structures. Emphasis is given to the construction of software from the specification phase through testing and maintenance. While no previous programming experience is required, please note that this is a very fast paced class. In order to complete assignments, students in this course will need dedicated access to an up-to-date home computer with a reliable internet connection. Students for whom this will be a challenge should speak with their principal or the chair of the Computer Science department.

INDUSTRIAL TECHNOLOGY/ENGINEERING

Modern society is permeated by many forms of technology. The Industrial Technology/Engineering classes facilitate the development of an understanding of technology and how it affects the world. Students are prepared, through both traditional and progressive methods, to adapt to a world increasingly filled with technological change. The syllabus includes applied, hands-on activities to further develop a student's knowledge of science, technology, engineering, and mathematics. Students develop basic skills including the safe use of tools, machines, computers and processes used by industry. Students acquire practical skills for solving technological problems and creativity is fostered by using technology for desired purposes. Students design and create from materials as well as computer applications. Activities facilitate the discovery of individual talents, aptitudes, interests and potentials related to industry and applied technology. Cooperative attitudes and constructive work habits are encouraged to help students work as individuals and in teams. We highly value craftsmanship and engender pride in work well done.

Basic Technical Design and Engineering
(Required, grade 7; 2 periods/week; 1 semester)

This course is designed to provide active learning situations for seventh grade students to acquire fundamental knowledge of material design, application, and process. Students are exposed to a variety of software, hand tools, and power tools during the construction of hands-on projects. Emphasizing problem solving, creativity, and cooperation, students will rotate through various projects in the areas of basic woodworking, computer aided graphic design, laser engraving, architectural drawing, and aerodynamics.

Industrial Technology/Engineering
(Required, grade 8; 2 periods/week; 1 semester)

This course is designed to give eighth grade students a broad exposure to current and emerging technologies and careers. Because of the wide variety of hands-on, project-based modules to choose from, this class has appeal to all students. Students will rotate through various projects throughout the semester. Examples of possible modules may include: Computer Aided Drafting, Laser Cutting, 3D Printing, Sheet Metal Fabrication, Electronics, and Robotics.

Project Technology I
(Grades 9-12; 2 periods/week; 1 semester; 1/4 credit)

This is a learn-by-doing course that introduces students to basic woodworking, starting with hard wood spindle work on the lathe. The course introduces the basic furniture-making process from designing to finishing, giving students a solid foundation in woodworking skills and the safe use of machines for stock preparation. Students will improve their abilities to sketch, develop designs, and create a 1/6 scale model of their CAD design. Once the design is complete, students will build a full-scale model of their design. Students will learn the use of power tools in the construction process. This will involve a myriad of machine-cut joints and shaping techniques using the table saw, router, router table, slot mortiser, shaper, and other equipment. Students will also learn finishing techniques, grain filling, and coloring, and will work with hand-applied finishes such as varnish, shellac, and oil, and spray lacquers. Each student designs and builds a piece of furniture, employing both hand and machine skills.

Project Technology II
(Grades 9-12; Prerequisite: Project Technology I; 2 periods/week; 1 semester; 1/4 credit)

This is a learn-by-doing course that introduces students to metal and woodworking skills. This class will involve Computer Aided Design (CAD) for their own original furniture design. Students will use Computer Aided Manufacturing (CAM) technology for wood and metal. This course will involve a myriad of machine-cut joints and shaping techniques using the table saw, router, router table, slot mortiser, plate cutter, planer, shaper, Mig welder, surface grinding, metal and wood cut off saws and other equipment. This course will engage students, in various hand and power tools. Students will also explore how to fasten and construct using both metal and woods.

Architectural Drawing
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

Architectural Design allows you a chance to learn the concepts of architectural drafting and design. A wide range of topics will be covered throughout the year including green architecture, home styles, interior design, room planning, standard design practices, drawing types, construction techniques and framing practices. You will have a chance to demonstrate your knowledge with numerous architectural design problems. You will create a full set of house plans along with architectural models to simulate home construction. Creativity, visualization, and problem solving skills will be emphasized.

Digital Audio Technology
(Grades 9-12; Prerequisites strongly recommended: Songwriting Class, Computer Video Editing Class or advanced musical training; 2 periods/week; full year; 1/3 credit)

Digital Audio Technology (DAT) is an independent study course that allows students to advance at their own pace. The class meets two periods a week. The goal of the class is for each student to learn to record, edit, and mix original digital audio mixes. Non-musicians as well as musicians will benefit from this course. Since audio engineering is a broad field, a variety of topics are explored. Each student will be required to produce at least two projects per semester. The final audio productions will be shared at the end of the school year.

Computer-Aided Drafting (CAD)
(Grades 10-12; 2 periods/week; full year; 1/3 credit)

This course is a challenging and rewarding class that introduces the field of engineering and engineering drawing. Problem solving and research skills are developed through engineering design problems. You will apply your CAD (Solidworks) knowledge to create working drawings for projects. Throughout the year, you will be required to demonstrate design and production techniques using 3d Printers, Laser Cutters and Engravers, Overhead Mills, and Plasma Cutters to make physical models of your virtual designs.

Computer Video Editing and Special Effects
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

Computer Video Editing and Special Effects (CVE) class is an independent study course that allows students to advance at their own pace. The class meets two periods a week. Once a week the entire class meets for instruction. The second class is a lab class to allow for individual project time. The goal of the class is that each student will learn to record, edit and mix original video footage. Students can select from a variety of video projects that allow students to learn how to use Adobe Premiere and Adobe After Effects. Since computer video production is used in a large variety of applications today, each student will be required to produce a minimum of two different video projects the first semester and a large-scale video will be due the second semester. The final films will be shown at the end of the school year.

Independent Study - Industrial Technology and Engineering
(Grades 9-12; Prerequisites: approval by the teacher, department head, and principal; minimum of 2 periods/week; 1/3 credit)

Independent study allows the student to explore a specific area of study beyond the basic course offerings in Industrial Technology/Engineering. The instructor discusses the topic and project with the enrolling student and approves the project-based outcome of the class. A completed Independent Study Contract, obtained from the grade-level principal, must be submitted during the first week of the term in which the class will meet. Independent Study class requires a high degree of self-discipline and commitment on the part of the student. Students will be encouraged to enter their finished projects in the district contest sanctioned by the Missouri Technology and Engineering Educators Association of Missouri in the spring.

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FAMILY AND CONSUMER SCIENCE

Basic Foods
(Required, grade 7; 2 periods/week; 1 semester)

This course introduces students to the selection and preparation of foods. Students will learn basic cooking techniques, the importance of safety and sanitation, and the functions of ingredients used in recipes. Proper use of equipment is stressed. A variety of dishes will be made weekly within a small lab group.

Basic Sewing (Required, grade 8; 2 periods/week; 1 semester)
This course, which introduces beginning sewing, stresses the proper use and care of the sewing machine. Construction techniques and fabric selection are emphasized when students construct two projects including pajama shorts and a patchwork pillow. Basic hand sewing techniques are also introduced.

Food Explorations
(Grades 9-12; 2 periods/week; 1 semester; 1/6 credit; $55 lab fee)

This course is open to students who are interested in furthering their knowledge of food preparation. Students will complete various kitchen labs to explore the science and reasoning behind the making of food. Emphasis will be put on functions of ingredients, cooking techniques, and proper tool usage. At the end of the semester, students will leave with a better understanding of common basic cooking principles that will enhance their skills in everyday cooking.

Sewing I
(Grades 9-12, 2 periods a week; 1 semester; 1/4 credit)

This course is open to students interested in advancing to the next level of sewing. Students will continue to explore and preform various sewing techniques on the machine. Using a pattern, students will construct two projects including a tote bag and fleece pullover. Students will be charged for patterns and fabric materials.

Sewing II: Clothing (not offered in 2022-2023)
(Grades 9-12, Prerequisite: Sewing I; 2 periods a week; 1 semester; 1/4 credit)

This course is open to students who completed Sewing I. Students will be asked to pick a pattern in the categories of shirts/dress and pants/skirts to construct using the sewing machine. Students will be charged for patterns. Materials will need to be purchased by the student.

Sewing II: Quilting (not offered in 2022-2023)
(Grades 9-12, Prerequisite: Sewing I; 2 periods a week; 1 semester; 1/4 credit)

This course is open to students who are interested in making a log cabin style quilt. Instruction will be given on fabric selection, strip sewing and techniques, while providing students options for quilt size, color and pattern selection. At the end of the semester, students will have a completed top piece, backing, and binding that would be ready to be machine finished by an outside source of their choosing. Materials will need to be purchased by the student.

Basic Gardening
(Grades 9-12; 2 periods/week; full year; 1/3 credit)

This course introduces beginning gardening: sowing, maintaining and harvesting crops. Students explore the world of permaculture by way of understanding the different layers, functions, and maintenance of a food forest. Students learn about seasonal and regional crops, how to compost, and have the opportunity to build a closed terrarium. No prior knowledge of gardening is needed.

OTHER COURSES

Academic Support
(Grades 7-10; 1-3 periods/week; non-credit)

Students may receive services if they have a diagnosed learning disability. Faculty work with students on study skills, organizational skills, and using approved accommodations to address needs in their area of disability.

7th Grade Seminar
(Required; 1 period/week; full year)

This is a discussion-based course that informs students' understanding about a variety of processes and topics that are significant to them as adolescents and as students at John Burroughs School. Discussion topics include, but are not limited to, diversity and personal identity, integrity, health and well-being, community building, friendship (its importance and its challenges), library resources, and student support. The Principal of Grades 7 & 8 coordinates this course, but it is taught by an array of faculty members, whose training and experiences make them excellent instructors and resources for our youngest students.

8th Grade Seminar
(Required; 1 period/week; full year)

This discussion-based course builds upon the work done in 7th Grade Seminar and, in addition, acts as a bridge to the upcoming Health and Wellness (9th grade) and Diversity Seminar (10th grade) classes. Discussion topics include, but are not limited to, diversity and identity, community service, relationships, leadership, physical and emotional health, body image, drugs and alcohol, and digital citizenship.

Health and Wellness
(Required; Grade 9; 1 period/week; full year, E/S/U grading; 1/4 credit)

In this process-oriented class, students discuss a variety of health issues and information on such topics as stress management, substance use and abuse, human sexuality, nutritional health, eating disorders, understanding depression and other emotions, and internet safety and responsibility.

Diversity Seminar
(Required; Grade 10; 1 period/week; full year, 1/4 credit)

This course builds on the previous seminars by exploring the various aspects of identity with the goal of helping students better understand themselves, others, and the broader systems that shape our society. The course aims to increase students' ability to communicate effectively across difference as well as to engage in meaningful conversation, specifically about these differences, with the ultimate goal of moving toward greater cultural competency.

The topics covered in the course include the biological and social formation of identity, bias in the brain, race, ethnicity, socioeconomic status, environmental justice, gender, sexual orientation, ability, religion, and political identity. Every two to three weeks, students hear a presentation on a topic given by a faculty on one of these topics and member and then engage in small group discussions in their weekly classes.

Grades are based on the following course requirements:
1. Attendance and active participation in all classes and presentations.
2. Assignments that deepen student engagement with the topics above.
3. Semester-culminating projects.

ATHLETICS

Physical Education/Athletics is required of all students each year. It is hoped that through participation in daily physical fitness and/or athletic activities, students experience the benefits that come with such activity, and gain a better understanding as to how and why physical fitness and athletics contribute to their total health and well-being. The intention is that students choose to make physical activity a part of their life well beyond their high school years.

The program stresses skill-related fitness (co-ordination, agility, power, balance, speed) as well as health-related fitness (flexibility, muscular strength, and aerobic endurance). An emphasis throughout the athletic program is to build character through participation in sport, with a focus on sportsmanship, teamwork, effort, and honorable conduct under all circumstances.

Physical Education: Grades 7-8
(Required; 2 periods/day, Monday through Thursday, full year)

The program is designed to give students experiences in the activities and sports offered in the upper school. Emphasis is placed on developing the skills, knowledge, and values derived from regular participation in physical activity and sport.

Athletics: Boys, Grades 9-12

FALL	WINTER	SPRING
Cheerleading*	Basketball	Baseball
Cross Country	Cheerleading*	Fitness
Fitness	Dance – Performance	Golf
Football	Fitness	Independent Activity
Independent Activity	Independent Activity	Lacrosse
Soccer	Ice Hockey	Tennis
Swimming/Diving	Squash	Track
	Wrestling	Water Polo

Athletics: Girls, Grades 9-12

FALL	WINTER	SPRING
Cheerleading*	Basketball	Fitness
Cross Country	Cheerleading*	Independent Activity
Field Hockey	Dance – Performance	Lacrosse
Fitness	Fitness	Soccer
Golf	Ice Hockey	Track
Independent Activity	Independent Activity	Water Polo
Tennis	Squash	
Volleyball	Swimming/Diving	
	Wrestling	

Requirements by Grade Level

Grades 9-10 (Required; 1 credit)

At a minimum, students must participate in two seasons of a team sport and one season of fitness or independent activity (IA).

* During grades 9-10, cheerleading may only be selected for both the fall and winter seasons if the student participates in a sport during the spring season; otherwise, the student must choose either the fall or winter season.

Grade 11 (Required; 1 credit)

At a minimum, students must participate in one season of a team sport and two seasons of fitness or independent activities (IA).

Grade 12 (Required; the allowance of 1 free season is subject to departmental approval.)

At a minimum, students must participate in one season of a team sport and one season of fitness or an independent activity (IA).

Independent Athletic Activity (IA)

(Grades 9-12)

A student may choose to participate in a non-school sponsored athletic enrichment activity (IA). An IA must be supervised by an adult (other than a parent/guardian) and meet the minimum rigor of a fitness unit (e.g., meet approximately 4 times during the school week, a minimum of an hour each session, etc.). A blended fitness and IA program is possible, as long as the days do not change from week to week. All IAs are subject to the approval of the Department.

Drama Option

(Grades 9-12; as agreed by relevant faculty)

For full time participation in the company of a major theatrical or dance production, students may receive a sports credit for that season.

Outdoor Education
(Grades 9-12)

Students may select outdoor education as a team sport credit for one season. Over the span of the year, but especially during the fall and spring, outdoor education offers a range of adventure programs at school and remote locations during weekends. While the outdoor education credit may apply to any sports season, a student who takes outdoor education for sports credit may need to participate on trips during other seasons to fulfill the requirement. The total hours required will be roughly commensurate to those required by a sports team. Students who like adventure and appreciate bad weather as well as good should consider this option. You must complete an outdoor education registration form available from the athletics department and receive the signed approval of the athletic director and the coordinator of outdoor education.

NOTE**:** P.E./Athletics Credit: At the end of each season, students receive a grade of Pass or Fail. When a student receives a Fail in any year, the Grade 12 Option for a Free Season is forfeited.

ACTIVITIES

A rich collection of activities provides opportunities for students to develop leadership skills, build a sense of community, recognize and respect differences, pursue special interests and have fun. We encourage all students to take part in at least one activity they are most passionate about; many take part in several. Sample club descriptions are included below: full descriptions for the more than 60 clubs and activities currently offered can be found on the JBS website.

The World
(Grades 9-12; full year)

Students are invited to participate in the publication of the school newspaper, which provides experience leading to editorial responsibility. Editors are chosen by the faculty advisor(s) and the publications committee, on the basis of past performance, commitment to the newspaper, and a letter of application. The World staff is responsible for writing, editing, photography and page layout.

The Governor
(Grades 10-12; full year)

Students work together, from the beginning of the school year through March, to produce a traditional yearbook. Under the direction of a group of junior and senior editors, students are responsible for writing and editing, photography, page layout, and design. Most work is done during weekly meetings, but editors can work in the Publications Lab during free periods, as well as before and after school, and all staff have access to their work from home. Editors are chosen by the faculty advisors and the publications committee based on past performance, meeting attendance, commitment to their work on the yearbook, and a letter of application.

The Review
(Grades 7-12)

This publication for art and writing reviews and publishes student work. In addition to producing an annual magazine each spring, the group encourages student writing, revision, and informal discussion about art and language. The editors and staff typically meet before school to review submissions, and all students are welcome to attend.

Middle-School Model UN
(Grades 7-8; unlimited membership)

The club begins meeting in September under the leadership of experienced 8th graders and is open to all lower school students. The program is designed to introduce students to the workings of the United Nations with a particular focus on the Sustainable Development Goals and their applications to local and global issues. In addition to basic research skills necessary for participation in future MUN activities, students learn to discuss, analyze, and debate global issues. By drafting resolutions, researching countries and their concerns, and voting on sample resolutions, students also begin to understand how and why different countries engage with global problems in different ways. Students participate in MUN general assembly debates and project presentations. These are sometimes done with other schools and sometimes done through internal forums with the mentorship of older MUN students at Burroughs.

Model UN (SLAMUN)
(Grades 9-12; limit 24; by appointment)

Details for the 2022-2023 school year are subject to change based on COVID-19 conditions, but SLAMUN (St. Louis Area Model UN) normally includes two sessions (one each in fall and winter) where students from St. Louis area schools engage in the simulated operation of the United Nations by drafting resolutions, discussing assigned topics and voting on proposals. In order to prepare for the sessions, participants meet on Special Meeting Days to discuss world events and work on resolution writing.

Participants from grades 9-12 prepare a resolution on a chosen topic from a packet of topics prepared by the student leadership of SLAMUN. The student leadership is called the Secretariat and they choose the resolutions that will be debated at each session from the resolutions submitted by student delegates. They also plan each session and run the debates themselves. Students apply to the Secretariat in the Spring each year for leadership positions.

THIMUN
(Grades 11-12; full year, session in late January)

Although details for the 2021-2022 school year are subject to change based on COVID-19 conditions, generally, the JBS THIMUN (The Hague International Model United Nations) team alternates between traveling to the Netherlands and other rotating international locations during the last week of January for the annual conference. Each conference site includes over fifteen hundred students from around the world assembling to debate international issues in emulation of the actual United Nations.

Applications for current JBS juniors and seniors are due in early September. Students may apply to serve as delegates, student officers, advocates or justices for the International Court of Justice, or members of MUNITY, the daily conference newspaper. Strong applicants will have a passion for researching and debating international issues, good communication skills, creative problem-solving skills, and an openness to new experiences and cultures, among other abilities and qualities. Students who intend to apply may find it useful to practice leadership and problem-solving skills by participating in SLAMUN (St. Louis Model UN) taking debate classes, being a member of GYLI (Global Youth Leadership Institute), working on the JBS student newspaper, or serving substantively as a leader in another student organization (in or outside of JBS). Application decisions are made in mid-October after the THIMUN organization announces the country assignments for each school, and the team then spends the next few months preparing for the conference at weekly Sunday afternoon meetings. As well as focusing on the in-depth research of complex international issues, these Sunday meetings work to hone the students' professional skills in communication, collaboration, and cultural competency.

Student Congress
(Grades 7-12; full year)

Student Congress is comprised of the Student Body President, the Chief Justice of Court, elected officers from each class, and an appointed Chief(s) of Staff. Congress meets once a week; its role is to direct student organizations and help establish understanding between students and other branches of the John Burroughs community. Congress helps define and implement the John Burroughs School Philosophy and is the main student vehicle to initiate change within the school. Members of Congress also organize several traditional school events, including the Student Activities Fair, Spirit Week, Blue and Gold Dance, Dance Marathon, Commons Café and Field Day.

Student Court
(Grade 7-12; hearings of 1-2 hours/week; full year)

The Student Court is composed of eight students, including a Chief Justice, two seniors, one junior, one sophomore, one freshman, one 8th grader, two Bailiffs, and a student recorder. Each member of the Court, except the Bailiffs and recorder, is entitled to one vote. The Head of School appoints a non-voting sponsor to the Court who, upon confirmation by the Court, enjoys all other rights granted to a member of the Court. The Court hears cases arising from alleged violations of school rules.

NOTE**:** More information on the Court is in the Student-Parent Handbook.

Montgomery Plan Community Service Club
(Grades 7-12; offered full-year, participation is flexible)

Montgomery Plan is a student group that promotes local community service opportunities for middle school and high school students. The Mission Statement is to promote social consciousness, cultivate relationships, foster empathy, and inspire lives of civic responsibility by compassionately engaging with the greater St. Louis community through volunteering and service.

Monthly meetings are held on Late Start Thursday mornings. Meetings offer a chance to learn about upcoming engagement opportunities, discuss and debrief recent events, and engage with representatives from partner agencies invited by the club to speak.

Montgomery Plan typically sponsors 2-4 events per month, including off-campus service work and on-campus drives and fundraisers. Annual drives include the fall Danna Drive, which supports a local organization chosen by student leaders, and the Holiday Food Drive, which supports a busy food pantry in South St. Louis City. Group volunteer opportunities include performing Sunday Funday recitals at senior living centers, assisting with events for people with disabilities, gardening and riverbank cleanup, MLK, Jr. Day of Service each January, and more. Montgomery Plan also sponsors two annual fundraisers: Old Newsboys Day is a citywide effort in November to raise money for over 100 local children's charities, and Empty Bowls is a potluck dinner in late February/early March to raise awareness about and funds for a local organization fighting hunger and food insecurity in the St. Louis region. Montgomery Plan partners with other service-oriented student groups in support of Challenger Baseball and STL World Food Day, both in the fall. Active members may apply for leadership roles within the club. Students who participate in Montgomery Plan events receive priority registration to attend the annual Spring Break Service Trip, which has traveled to such destinations as Chattanooga, Kansas City, Chicago, and Memphis.

Other Clubs and Activities

Aim High
Amnesty International
Anatomy Club
Animal Allies
Asian Culture Club
Best Buddies
Bio-Medical Sciences Club
Business Club
Cars & Coffee
Ceramics Club
Chess Club
CISI (Conversations Involving Student Identity)
Classics Club
Climbing Club
Computer Science Club
Current Events Club
Dance Squad
Debate Club
Diversity ETC
Environmental and Ecology Club
Extra Hands for ALS
Film Club

French Club
Gender Equity Organization (GEO)
Global Assistance Project (GAP)
Global Youth Leadership Institute (GYLI)
Guild of Geeks
Hispanic Culture Club
Jewish Culture Club
Kids Against Cancer
Kids Under Twenty-One (KUTO)
KIVA
Light & Sound Crew
Makerspace Club
Math Club
Middle School Book Club
Middle School Diversity Club
Mock Trial Team
MUN Impact
One Infectious Disease at a Time
Ping-Pong Club
Political Actions Club (PAC)
Protecting Our Patriots
Queer Reads
Rise
Robotics
Science Olympiad
Sixth Man Club
Spectrum
Sports for Charity
St. Louis Teens Aid Refugees Today (START)
Stubborn Ounces
Summer Days
Sunrise JBS
Super Mileage Vehicle Club (SMVC)
TED Club
UNICEF Club
Works in Progress
World Religions Club
Young Republicans Club

SPECIAL PROGRAMS

During the school year a variety of special programs are available to a limited number of students. These programs are not listed as regular courses or activities because they differ substantially in form and time period. Generally, additional fees are charged, and for some programs these are substantial.

NOTE**:** Limited financial aid is available from the Edward W. Cissel, Jr. Fund, created specifically for those who could not otherwise take advantage of these programs. Information can be obtained from the Head of School's assistant.

Outdoor Programs

Students are actively involved in outdoor educational programs. Their objective is to give students opportunities to grow and learn in special ways relevant to the out-of-doors:

a. Experiencing self-challenge: encourage the student to extend boundaries of performance.
b. Broadening self-image and developing self-confidence: confronting new, challenging situations to discover new capabilities and strengths.
c. Learning self-reliance: encouraging independence when meeting a challenge, so that the student learns to think and act responsibly and autonomously.
d. Learning constructive participation: learning both to contribute within a problem-solving group, and to depend upon the peer group for success.
e. Learning a new relationship with nature: introducing the student to new perspectives on our interdependence with nature, in order to develop an appreciation of the eco-system.

Expedition Program
(Grades 7-12)

Backpacking, hiking, canoeing, spelunking, climbing, biking, and other weekend adventures to state parks and nearby wilderness areas, often involving overnight camp-outs.

7th Grade Drey Land
(Required, grade 7; Fall)

This is a 4-day orientation program that takes place at our Drey Land Camp in the Ozarks. The program is designed so that Burroughs' 7th graders learn about themselves and each other, participate in activities that require differing perspectives and cooperative group learning, and experience the beauty of the outdoors. The 7th grade Drey Land program helps students to understand and embrace the importance of considering alternate ways of thinking and doing as they continue on their journey as students at John Burroughs.

Drey Land Plus
(Summer before grade 9)

Drey Land Plus is an orientation program for new students in grades nine offered at the school's Ozark campus. In this program, conducted in August, each new student is paired with an experienced guide student in order to enjoy and learn from a number of outdoor activities and challenges. These usually include a group cookout, quiet walk, float trip, and other group activities and discussions. This program seeks to foster in older students new to Burroughs a better understanding of the school and its many traditions as well as an appreciation of themselves, their classmates, and the vitality that is John Burroughs School. Guide students are selected by the principal of grades 9 and 10 based on their leadership skills as well as an appreciation and understanding of the program.

Biology Field Study at Drey Land
(Required, grade 9; Spring; see p. 49)

International Trips

THIMUN Trip (see p. 86)

Classic Department Trips

Opportunities to travel to Italy, Greece and other Roman provinces are offered by the Classics Department to students and interested members of the Burroughs community. These trips bring to life the material that students of Latin and Greek have been learning in our classrooms. They stroll along the same streets of Rome and Athens that were trodden by the poets, historians, orators and philosophers whose work they have studied. On these trips, participants travel back in time when visiting ancient sites, while enjoying the contemporary culture and cuisine of each destination. Members of the Classics Department and Burroughs faculty lead these trips. Financial aid is available for current students who qualify.

Italy Trip (two consecutive years followed by a one year break: March 2022, 2023, 2025, 2026, etc.)

The trip to Italy is offered to students of Latin and Greek over spring break. The popularity of this trip restricts it to students currently enrolled in Latin III, IV or Latin V, or Greek I or Greek II. While in Italy, students spend a week exploring Rome and the Etruscan city of Orvieto, before departing for the Naples area where the buried cities of Pompeii and Herculaneum are the focus.

Greece Trip (every three years: June 2022, 2025, etc.)

Though the trip to Greece is open to all students, parents/guardians, and alumni, priority is given to current and former students of Latin and Greek. The journey begins in mainland Greece with visits to sites such as Delphi, Mycenae and Olympia from our base in Athens. This is followed by a five day 'mini-cruise' that includes Crete, Mykonos, Patmos and Rhodes, as well as Ephesus, a major city of the Roman empire which was once on the coast of Turkey, but is now about six miles inland.

Roman Province Trip (two consecutive years followed by a one-year break: June 2023, 2024, 2026,2027, etc.)

Like the trip to Greece, this trip is open to all students, parents/guardians, and alumni, but priority is given to current and former students of Latin and Greek. The inaugural Roman province trip will take participants to Britannia where they will visit world-class museums, archaeological sites and historical reconstructions from their bases in London and the North of England. Future destinations under consideration are Sicily and Spain.

Modern Language Department Trips

Modern language students who spend meaningful time in a country which speaks the language they study attain a higher degree of fluency. The language comes alive; moreover, host families and new friends can make lifelong, life-altering impressions. In bringing this experience to the classroom, students are more motivated themselves and motivate others. Furthermore, an experience abroad can improve a student's maturity. The Modern Language department sponsors trips in each of the core languages offered. These trips are designed to be educational, enjoyable, convenient, and affordable. Burroughs faculty chaperone the trips. The school can provide financial aid for students with need.

French Trip (alternating years: 2022, 2024, etc.)

This ten-day cultural summer French trip in June immerses students in the culture, food and language of a variety of cities and regions in France: Paris, Pierrefonds, Lyon, Avignon, Arles, Les Baux de Provence, and the alpine town of Chamonix, as well as Geneva, Switzerland. Incorporated in the trip are visits to various museums, iconic monuments, chateaux, parks, an opera house, Roman sites. This trip is offered to students in grades 9-11.

German Exchange (yearly, though travel to Germany takes place on alternating years: 2020, 2022, etc. and German students visit 2021, 2023, etc.)

Three-week trip at the beginning of the summer featuring a two-week homestay in Stuttgart and travel to Munich, Vienna, Strasbourg, Zurich, and Berlin; those who travel host their partners here in St. Louis the following year in the spring. This trip is offered to students grades 10-12.

Spanish Trip (alternating years: 2021, 2023, etc.)

This ten-day Spanish summer trip emphasizes educational immersion in Spain, where students further explore the history, literature, and art history that we have covered in the classroom. We will include opportunities to enjoy a variety of food, music, and visits to museums. In addition, we try to attend a play, a zarzuela and/or a flamenco performance. This trip is offered to students grades 10-12.

Spanish Service Trip (alternating years: 2020, 2022, etc.)

This is a ten-day trip during the summer, emphasizing cross-cultural service in the form of a building project in a rural community, language immersion, and touring the country around the local area. This community service trip will be offered biennially to students of Spanish in grades 9-11.

Other Special Programs

Career Awareness (Ms. Fogarty)
(Grades 7-12)

The Rassieur Career Awareness Center is located in the College Counseling Office and provides information on future occupations. The purpose of the Career Center is to initiate career exploration. Materials include books, periodicals, pamphlets, and audio-visual sources as well as some information on possible May Projects for seniors. Outside speakers are brought to school for a Career Awareness Day for sophomores in the spring. On Career Awareness Day students also complete assessments, including a career interest profile and personality inventory, to assist with the college search process.

Praxis Week (Ms. Keeley)
(Open to rising sophomores through rising seniors)

The Praxis Week program takes place the first week of summer each year and exposes twenty Burroughs high school students to a wide range of careers in applied math and science. Students interact with professionals and academics in their work environments, traveling to a different business or research institution in St. Louis each day of the program. Hands-on activities are emphasized to give the students an idea of what working in various fields would be like. If necessary due to public health circumstances, the program is held over Zoom instead. In either case, the variety of experiences over the course of the week opens students' minds to the wealth of options available. Applications are sent by the principals to 9th-11th grade students in January or February. Interested students can contact Ms. Keeley for additional details.

Summer Days (Mrs. Clark)
(Grades 9-12; two weeks in July, 9 am-2 pm)

This day camp for inner-city children run by Burroughs students offers positions for counselors who are selected mostly from rising sophomore, junior, and senior applicants. Selection is based on previous volunteer experience, gender, and seniority – while some freshmen and sophomores are chosen, priority is given to juniors and seniors. Counselor-led activities include swimming, field games, arts and crafts. Field trips include the Zoo, Science Museum, City Museum, and a water park.

Aim High
(Grades 10-12)

Aim High is a partnership between John Burroughs School, The Saint Louis Priory, and several local public-school districts. A five-week summer enrichment program—academics, arts, sports, and cultural activities—is offered at John Burroughs and The Saint Louis Priory Schools to selected middle school students from these schools. The purpose of the program is to provide four years of extra skills, encouragement, and self-esteem development to help these students graduate from high school and, it is hoped, attend college. John Burroughs students serve as teaching assistants during the summer program; they help with classes, counseling, and sports, as well as cultural activities. During the school year, Burroughs students may also help with the monthly programs held for Aim High students on Saturday afternoons. This program represents an important exchange between the city and the county, between public and private education. Sophomores, juniors, and seniors may volunteer for the five-week program which begins in mid-June and ends in mid-July.

Tutoring JBS Students
(Grades 9-12)

Department heads or teachers may enlist the aid of students to teach those who are having difficulty with a subject, and who need more help than the teacher can reasonably provide. Students are then asked to give up some of their free time to tutor in particular subjects.

Teacher's Aide
(Grade 12, by department approval; 4 periods/week; full year; 1/2 credit)

Limited openings for selected seniors are available in some departments, usually Ceramics & Sculpture, Mathematics, History, and Languages. Senior aides work closely with a supervising teacher in seventh- or eighth-grade classes, preparing materials, tutoring individual students, and teaching some units. Teacher approval required.

Independent Study
(Grades 9-12; no Honors credit is awarded)

In a few cases students may receive permission to study under the supervision of a teacher to explore specialized interests or to do advanced work beyond what the regular JBS curriculum offers. A contract approved by the teacher, department head, and the Principal specifies description of the project, hours and product; this contract must be completed during the first week of the semester that the study begins.

Theater/Dance Productions (Mr. Pierson, Mr. Battles, Ms. Kinney, and Ms. Pietz)
(Grades 7-12; by audition)

Theatre productions are put on for the public each season. Auditions are required. The work takes place outside regular school hours.

May Project
(Grade 12)

As a spring graduation requirement, each senior designs a program which allows the student to work in a new setting, with new people away from Burroughs, learning new skills and experiences which benefit the community, establishing a sound working relationship with a sponsor, and successfully accomplishing tasks and goals. Plans for the Project begin in January and final proposals are submitted to the May Project Review Board in March. Past experience has shown that this experience is especially valuable for seniors as they complete their high school career and look toward college. *Details about the process and the guidelines are available from the Principal of Grades 11 and 12.*

Alternate Senior Program
(Grade 12)

A senior can apply to take special courses at a local college in lieu of a full course load at Burroughs. The courses must represent valid educational experiences and must be scheduled around the courses at Burroughs. Tuition fees at the colleges are paid by the student; there is NO TUITION REMISSION at John Burroughs School for this arrangement. Plans must be made at the end of the junior year in consultation with the Principal and the College Counselor.

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