

BURROUGHS

J O H N B U R R O U G H S S C H O O L

CURRICULUM GUIDE

2016-2017

Student's Name: _____

(This guide should be kept for future reference)

This edition of the Curriculum Guide was printed in Times font, 10 point. 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.

JOHN BURROUGHS SCHOOL
CURRICULUM GUIDE
2016 - 2017

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 requirements and guidelines outlined on pages 6-10.

Then, in consultation with your parents and advisor, and with the approval of your Principal, plan a program best suited to your unique capabilities and interests.

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INSTRUCTIONS FOR SELECTING COURSES

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 about your prospective schedule.

NOTE: One parent must sign the selection card.

3. Consult with your teachers if you have a question about the next course to take in a subject.

4. At the Advisory meeting on Tuesday, April 5, arrange an appointment to meet your advisor about program choices.

NOTE: The advisor must initial the selection card and submit it directly to the appropriate principal.

5. Students currently in their junior year should consult with both their advisor and college counselor about courses.

6. a. Please use a PENCIL to write information on the card.

b. Circle the course number and name for courses you wish to take.

c. If you request more than one course in a department you must designate which course you prefer.

d. If you want a course which requires “department approval” you must get the signature of the department head or teacher.

e. If you wish to take more than 3 Honors and/or AP courses or six full credit courses in one year you must obtain written permission from your principal.

7. Use “Special Circumstances” box to select a course not listed on the Selection Card for your grade (e.g. Special Programs, pp. 91 - 97).

8. Turn in the completed, signed card of the proper color (see #9 below) to your advisor Monday, April 11 through Wednesday, April 13.

Advisors should turn in the signed cards to the principals by Friday, April 15.

9. Advisors turn in cards to the principal designated below:

<u>Current grade</u>	<u>Card color</u>	<u>Person</u>
7	Green	Mrs. Harris
8	Gray	Mrs. Harris
9	Yellow	Dr. Deken
10	Pink	Dr. Deken
11	Blue	Mr. Front

Several sets of requirements should guide course selection:

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 9 (see p. 81).
9. Diversity Seminar -10 (see p. 81)
10. Physical Education each year.
11. May Project in the senior year (see p. 96).

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

****Courses in the Practical Arts include:** Project Technology, Architectural Drawing, Robotics, Digital Audio Technology, Computer-Aided Drafting, Architectural Drawing, Advanced Architectural Drawing, Computer Video Editing and Special Effects, Gourmet Cooking, Sewing II, Basic Gardening, Public Speaking, Debate, Theatre Production, Introduction to Computer Programming, Programming for the Web.

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.

STATE OF MISSOURI COLLEGE PREPARATORY CURRICULUM

The Department of Elementary and Secondary Education, State of Missouri, for its College Preparatory Studies Certificate requires a complete rigorous high school program (grades nine through twelve), co-operatively planned by the school, the student, and the student's parents, which includes at least the following areas and credit: English/Language Arts (4), Mathematics (4), Science (3), Social Studies (3), Fine Arts (1), Practice Arts (1), Physical Education (1), Electives - including Foreign Language (7).

MISSOURI STATE HIGH SCHOOL ACTIVITIES ASSOCIATION ELIGIBILITY REQUIREMENT

"A student in grades nine through twelve must be currently enrolled in and regularly attending courses that offer a minimum of 3 units of credit (per semester)."

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 activities and elective courses. This total is composed of 25 to 30 assigned periods.
3.
 - 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 p. 6 Graduation Requirements).
 - 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.
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.
 - a. A full year course may be dropped without record or penalty any time prior to the end of the first semester.
 - b. A semester course may be dropped no later than the end of the first week of the semester in which it is taught.

Courses dropped within these limits are not shown on a student's record.

NOTE: 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 first two weeks of the first semester, with exceptions at the Head of School's discretion. A semester course may be added no later than the end of the first week of the semester in which the course is taught.

7. Honors courses and/or independent honors credit are offered in English, Foreign Languages, Mathematics, and Science (see course descriptions). An additional quality point of .67 is awarded to those students earning honors credit who receive a grade of B- or better for the overall course. Specific guidelines for honors credit courses are as follows:
 - a. Honors credit may be earned only in grades eleven and/or twelve.
 - b. 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.
 - c. 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. A national test is offered 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 3 Honors and/or AP courses. Exceptions to this rule are considered by special petition to the grade level principal (see p. 5, section 6e).

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 the three step E/S/U (excellent/satisfactory/unsatisfactory) 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 freshman 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. 2nd year calculus. A full credit half-year course at the college level receives one half credit at JBS; the grade appears on the transcript and is figured into the GPA.

ENGLISH

JBS Graduation Requirement: 4 years

We teach our English courses as seminars. Much of what the students discover and practice in a class period develops through class discussion. We aim for each student to take part in that class conversation. We recognize the primary importance, to good readers and good writers, of attention to detail. We are a team of close readers, and we model that endeavor for the students as we guide them in their own close reading. Both in classroom exchange and in writing instruction, we guide our students to root their ideas in data: to open the book, to find the passage, to read it carefully, to respond to it with integrity. The range of works we select to teach is broad and reflects multiple genres and the literatures of many cultures. As colleagues, we honor the individual experience and creative autonomy that animate each of our classrooms; as a group, we also engage in ongoing collaborative refinement of our practices. A student in a Burroughs English class should expect to submit a piece of well-developed writing once every two to three weeks. We encourage individual students to confer with us during the writing and revising processes so we can provide targeted support to the growing writer who, through guided practice in regarding and developing his or her own voice, continues to expand the ability to attend to language and to attend to experience through language.

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)

Central to the curriculum is the study of literary expression. We emphasize reading as a means to both enlightenment and pleasure. Laying the foundation of middle school studies in grammar, with emphasis on identification of parts of speech, subject and predicate, prepositional and verbal phrases, and subordinate and independent clauses, we explore how such study improves one's command of English. Required literature in the various genres may include *The Miracle Worker*, *Animal Farm*, *A Raisin in the Sun*, *A Midsummer Night's Dream*, and selected poetry and short stories. Students write in a variety of modes, with focus on voice, style and logic as these qualities emerge in narration, description, and exposition. From practice in crafting and developing paragraphs, students move into the construction of essays. The program is complemented by vocabulary study and oral presentation. Finally, all students are encouraged daily to promote their own and one another's success through active listening and class participation.

English 8

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

This year's curriculum further develops language by building upon the grammar and vocabulary skills taught in the seventh grade. Specifically, we review the parts of speech and parts of a sentence and then advance to sentence structure, punctuation and style. Vocabulary words are culled from the readings and supplemented with Wordly Wise 3000 Book 9. In literature we progress from a focus on reading comprehension to that of active reading and analytical thinking. The following texts comprise our reading list: *To Kill a Mockingbird*, *Of Mice and Men*, *The Secret Life of Bees*, *Private Peaceful*, *Coming of Age* (short stories), *World Mythology*, *The Tragedy of Julius Caesar* and selected poems. The literature informs and inspires the writing topics, which include literary analysis, emulation, personal narrative, fiction and poetry.

English I

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

With the curriculum of English I, we endeavor to expose to students to a wide variety of human perspectives with a rich body of literature in many genres. By reading, writing, and reflecting on poems, plays, novels, and short stories, students gain insight into universal human questions that transcend individual cultures. In addition to regular reading, ninth-graders gain practice in both expressive and expository writing, with an emphasis on literary analysis and interpretation. The reading list includes *The Odyssey*, *Romeo and Juliet*, *Lord of the Flies*, and *Catcher in the Rye*, supplemented by teacher selected essays, poetry, plays, novels, and short stories.

English II

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

Building upon the skills practiced in English I, English II students will strengthen their dexterity in writing expressive and argumentative essays. We will focus on composition techniques including clarifying and combining sentences, controlling substantiating detail, and shaping overall structure. Through the revision process, students will work to develop their own voices. The readings of the course represent the British literary tradition. Core texts include *Macbeth*, *Frankenstein*, *Pygmalion*, *Brave New World*, and British Romantic poetry, as well as selections from *The Canterbury Tales*, and other works of prose, poetry and drama.

English III

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

The junior English course offers a survey of American literature from the Puritans to contemporary times. Students' concurrent study of United States history presents opportunities to make interdisciplinary connections. English III explores a range of genres and addresses major trends in American culture. Students will expand their own rhetorical skills as they examine other writers' technical choices and expand their own ability to craft complex arguments and expressive pieces. Core texts include *The Scarlet Letter*, *The Adventures of Huckleberry Finn*, *The Great Gatsby*, *Their Eyes Were Watching God*, and *Death of a Salesman*.

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 asks students to wrestle with issues linked to self and society; for instance, how one develops an identity via engagement with the world, or how one learns to balance responsibilities to self and responsibilities to others. All writing assignments—including personal reflections, traditional literary analyses, and stylistic emulations—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 a literary life outside the support of a high school classroom. Recent texts have included *Into the Wild*, *Hamlet*, *The Road*, *Heart of Darkness*, *Lolita*, *Letters to a Young Poet*, *Franny and Zooey*, *Mama Day*, *The Namesake*, *Nickel and Dimed*, *Naked*, *Runaway*, *The Pugilist at Rest*, *The Sound and the Fury*, *As I Lay Dying*, and *The Things They Carried*.

English IV Honors Seminar

(Grade 12; by application; limited enrollment, 6 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 at least a B- both in Honors Seminar and in English IV. Weekly attendance and participation are core requirements of the course. In addition, a 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.

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 creating civilization. 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. 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 into Medieval Europe. In addition, students study the rise of contemporaneous civilizations in Asia and Africa. 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 includes methodical instruction for a documented research paper and requires semester examinations.

World Civilizations II

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

This course continues the study of world history and culture by examining societies in Asia, Africa, Europe, and the Americas, after AD 1350. 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 the 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 two term papers focusing on the skill of historiography. End of semester examinations are required. Students, after consulting with their teacher, may elect to prepare for the American History SAT II and/or, with extra study, the United States History Advanced Placement examination.

African-American Studies

(Grade 12; limit 18; 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 civil rights
- 3) the history of racism and race relations
- 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; limit 16; 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. American history since then has been dominated by an effort 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 focus is on 1945 - 1974, the course also touches on significant developments in the 70s, 80s, and early 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, debates, film and documentary viewing, and student presentations. Several tests and essays and the December examination are required.

Globalization and Sustainability

(Grade 12; limit 16; 4 periods /week; full year, 1 credit)

The end of the Cold War era witnessed the changing nature of national and international politics and the global economy. This seminar course examines this complex and significant shift in recent world history and seeks to understand the current state of the world and its possible future characterized by accelerated urbanization, industrialization and globalization. The following topics will be closely considered: the rise of capitalism and a global market beginning in the late 1980s, the expansion and influence of multinational corporations, global population increase and its regional and global implications, the growing issue of wealth distribution and disparity around the world, free trade policies and an increasingly interconnected world economy, global warming-- its impact on the planet, and its political, economic and social effects. The central question that underlies the course and all topics is: to what extent can human beings develop economic, social, political, environmental, energy and other policies that better lead to world-wide sustainability?

The course is reading intensive, and includes a number of books and articles. Since it is taught as a seminar, interest in critical thinking and a commitment to participate actively in class discussion are required. Class activities include regular reaction papers and discussions, films, group and individual research projects and oral presentations. There are few tests during the year and no major paper, but a December exam is required.

Literature and History

(Grade 12; limit 16; 4 periods/week; full year; 1 credit)

“History is a novel that has been lived,” wrote Edward DeGoncourt. In this course, students read historical novels, poems, short stories, and essays and discuss them in a seminar setting. Students are assigned research on the historical background underlying the works studied; they present their findings to the class. This information provides historical context to the works students read. A partial list of the readings include Bernard Malamud’s The Fixer, a novel of anti-Semitism set in pre-revolutionary Kiev; Erich Remarque’s saga of trench warfare in WWI, All Quiet On The Western Front; and Tim O’Brien’s novel In The Lake Of The Woods, a story about the consequences of trying to bury the past for a Vietnam War veteran. Numerous poems are also read, from such standards as Tennyson’s Charge Of The Light Brigade to lesser-known works, such as Yevtuschenko’s Babi Yar. Evaluation is based on class participation, tests, quizzes, essays, and historical presentations about the readings and authors. Students take the December final examination.

Bioethics (ONLY ONE SECTION OFFERED)

(Grade 12; 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; limit 16; 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.

Concentration in Urban Design

(Grade 12; Architectural Drawing and Computer-Aided Drafting recommended but not required; **Instructor approval required**; limit 3; 2 periods/week; full year; 1/3 credit)

This course is for those seriously interested in pursuing architecture in the future. In addition to taking Urban Issues and Design, students will have two additional periods to develop a site plan redeveloping an actual St. Louis site chosen with the advice of the instructor. Students will study more intensively the design principles explored in Urban Issues and Design, will photograph their site, will explore different architectural styles, and finally will develop a 3-dimensional site plan. Students must be able to work independently and meet deadlines.

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 is Latin to modern English. Most English words have classical roots, so the study of Latin 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.

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 in the **depth** of learning a foreign language, the department recommends the six-year sequence of study, i.e. through Level V, in Latin. (see p. 7, College Admission section)

Honors credit is offered at both Levels IV and V upon the satisfactory completion of two assigned projects, together with at least a B- for the semester grade (for further explanation, see p. 9, section 8). Those students who complete Latin V, whether Honors or not, 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. The History of Classical Art is an introductory and illustrated course available in grades 9 - 12. On the other hand, the senior elective Foundations of Western Literature 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 in March of 2017. A Greek trip to the mainland and the islands is offered in June of 2016 and will be repeated in future years. Priority will be given to both students and alumni, who have taken Greek or Latin.

*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 conjugations. This grammar, along with basic vocabulary, is reinforced with regular composition exercises.

Text: The Oxford Latin Course part I (2nd edition)

*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 (2nd edition).

***NOTE:** Students who satisfactorily complete Latin 7 & Latin 8 may progress to Latin II in the ninth grade. Graduation credit - the foreign language requirement - is only earned on 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 (2nd edition).

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 OLC 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)

In this course students complete the transition, begun in Latin II, from the “artificial” story of Horace's life to extant Latin literature. Their introduction to “real” Latin embraces both poetry and prose: they meet the protean Augustan poet Ovid, with selections from his elegiac poetry and from the massively influential *Metamorphoses* (e.g., the story of Daedalus and Icarus). For matchless Latin prose, they can do no better than the forensic works of Cicero, that towering literary figure of the late Republic. Whether reading verse or prose, students enhance their skills by constant review and reinforcement of fundamental grammar and syntax.

Texts: *Cicero, First Catilinarian Oration*, ed. K. Frerichs [Bolchazy Carducci]
Ovid: An Ovid Reader. ed. Ed DeHoratius [Focus]

Latin IV

(Grades 11-12; Prerequisite: Latin III; 4 periods/week; full year; 1 credit; Honors credit available for two projects, by department approval)

Students in this course once again sample both poetry and prose of the highest order from two near contemporaries living through the death-throes of the Roman Republic. The language of love and hatred, greeting and dismissal, invective and hymn -- it is all in Catullus' lyric poetry. Yet he was one of the few Romans, it seems, who did *not* try to curry favor with Gaius Julius Caesar, whose account of his military campaigns in France (*de Bello Gallico*) records both decisive victories and crushing defeats in lucid prose. Since they read the selections from Caesar's writing which have been set for the Advanced Placement exam (which also includes selections from Vergil's *Aeneid*), those students enrolled in this class are effectively preparing to write that exam in their senior year, if they so choose.

Texts: *Love and Betrayal: A Catullus Reader*, eds. Arnold, Aronson and Lawal [Prentice Hall].

A Call to Conquest: Readings from Caesar's Gallic Wars, ed. Perry, [Pearson].

Latin V

(Grade 12; Prerequisite: Latin IV; 4 periods/week; full year; 1 credit; Honors credit available for two projects, by department approval)

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 epic 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. Together with the readings in Caesar, covered in Latin IV, students hereby complete the curriculum for the AP exam in Latin.

As students of this program spend their early years not only learning the basics of Latin grammar but also following the life story of the poet Horace, this last year also brings them back to the poetic and philosophical delights of Horace's verse. The readings include poems which complement the epic achievement of Vergil, focusing on Horace's treatment of Homeric themes and Roman virtues.

If there is sufficient student interest, a second section 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 class.

Text: *Vergil's A Song of War: Readings from Vergil's Aeneid*.
eds. R. A. LaFleur and A. G. McKay [Pearson]

or

Cicero's *Pro Caelio* (edition by Keitel & Crawford)

Beginning Greek

(Grades 10 - 12; Prerequisite: department chair approval; 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 & 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. The class also reads in translation a tragedy or comedy.

Text: Greek to GCSE, Part 1 (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, department chair approval; 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 Socrates and the Sophists to the world of myth, and finally to passages lightly adapted from Herodotus. Time is also devoted to reading a play in translation, either a tragedy or a comedy.

Text: Greek to GCSE, Parts 1 and 2 (Taylor [Bristol Classical Press])

Greek II

(Grade 12; Prerequisites: Greek I, department chair approval; 2 periods/week; full year; 1/2 credit)

After completing a survey of essential grammar and syntax (e.g. the subjunctive and optative moods), students move on to read an appropriate original ancient Greek text; in the past, these have included Plato's Crito, selections from the Greek New Testament, comedies by Aristophanes, and selections from Herodotus's Histories. These readings continue to be anchored in a consideration of the broader Greek world (e.g. geography, art, literature) through use of the department's audio-visual holdings and *realia*.

Text: an appropriate edition of the author to be read

The History of Classical Art: Its Genesis and Influence

(Grades 9 – 12; no prerequisites; 2 periods/week; full year; 1/2 credit)

This course introduces the history of classical art through lectures and slides. For each of three major modes of artistic expression, sculpture, architecture, and painting (including ceramics), the course will cover the origins and history of Greek and Roman art, beginning in the bronze age and stretching through late antiquity. We will then examine how it resonates in later periods, whether in the rejection or the adoption of classical forms and aesthetics.

If schedules allow, there are at least two field trips planned: one to the St. Louis Art Museum, and one to Washington University's Kemper Museum of Art, where we may be able to view some Greek vases that are not on view for the general public. Other field trips may include, depending on current exhibitions, visits to the Pulitzer Collection, and the Contemporary Art Museum, as well as a walking tour of the Central West End or Compton Heights, where the houses exhibit remarkable influence of classical architecture.

Foundations of Western Literature (Honors optional)

(Grade 11 and 12; academic option, no knowledge of Latin or Greek is necessary; 4 periods/week; full year, 1 credit; additional materials fee)

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 intended as a seminar-style discussion based upon a close reading of primary sources. In the first semester the focus is on classical epic, assessing the changing concept of the “hero” and the “heroic” in Homer’s *Iliad* and Vergil’s *Aeneid*. In the 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, e.g. Oedipal themes in *The Minority Report* or the Odysseus-like nature of *The Hobbit*. 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.

NOTE: Optional Honors Credit

This course may be taken for an optional Honors credit. Students so enrolled are required, once per semester, to read a piece of literature over and above the assigned readings, present it orally to the class, and write an essay on it. The work to be read, and the nature of the writing assignment, is chosen in consultation with the instructor.

NOTE: To earn the Honors credit, students must maintain at least a B- grade each semester in addition to undertaking the extra work (see p. 9, section 8).

Texts: a list of the required texts is supplied by the department chair.

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.

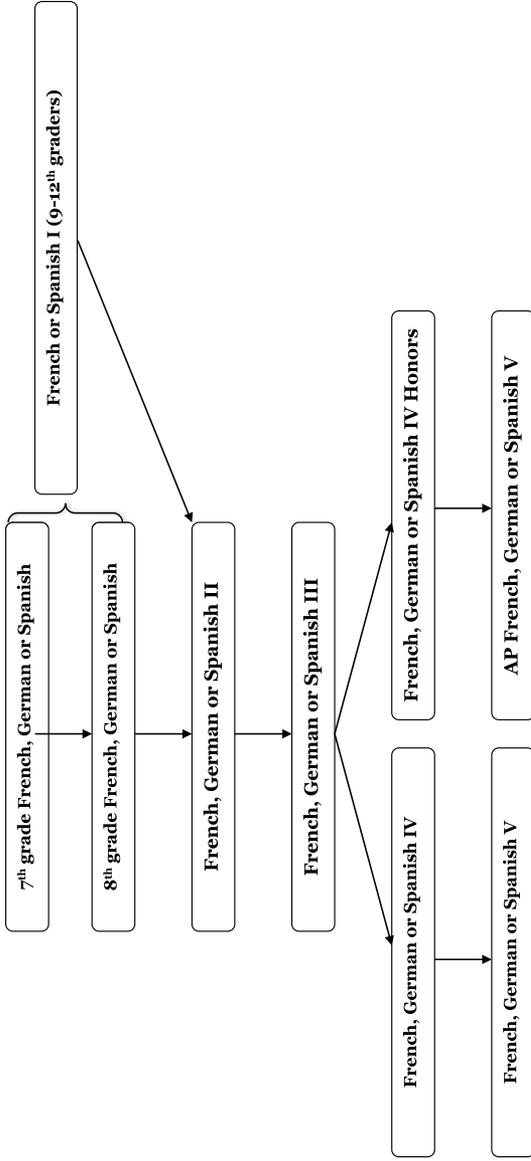
Thus, the Modern Language department at JBS strives to teach students to communicate in a living language, knowing that to do so effectively means not only to know vocabulary and grammar, but also to understand how the language has evolved symbiotically with the culture of which it is a part. Moreover, 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 strongly recommends that students participate in an exchange/homestay program or travel experience in a country where the studied language is spoken (see p. 93-94, Special Programs section for more details).

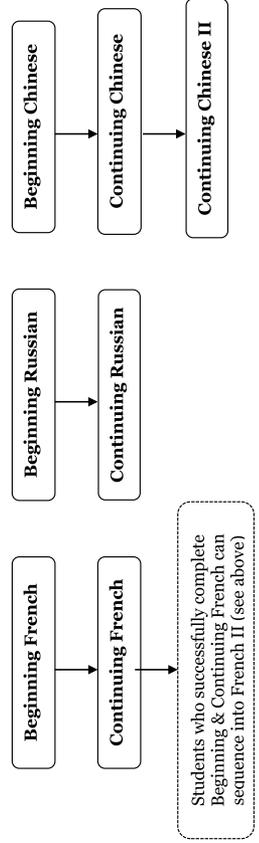
Because increased emphasis is being placed on oral proficiency in the teaching and testing of modern foreign languages, the department recommends the six year sequence of study, through Level V. All modern language department classes benefit from the language laboratory which offers multimedia computers and audio/recording stations. School-wide access to the Internet brings foreign languages and a wealth of current information to the student's fingertips in forms varying from foreign news media, to museums, to classrooms overseas.

On the following page a 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:



1/2 credit (2 periods a week) full-year language elective courses offered for 10th-12th graders:



*French 7

(4 periods/week; full year)

This course lays a basic linguistic and cultural foundation of the study of French. Conversational ability is developed through classroom interaction, practice in the language laboratory, and homework. Emphasis is placed on pronunciation, basic communication, interpretation of authentic videos, songs and texts, the development of contextual vocabulary phrases, gender and number agreement with subject, personal pronouns, adjectives, and their use with present tense verbs. Projects encompass regular creation and performance of dialogue sketches, self-description profiles, the geography of France, and an imaginary family tree.

Text: *D'accord I* (Vista Higher Learning)
Allons-y (magazine subscription)

*French 8

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

Continuing to build the basic language 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 the principal regular and irregular verbs in the present and past tense, several types of pronouns, adverbs, and how to formulate and answer questions. They continue to advance their fluency through classroom work, work in the language lab, homework, short compositions, and dialogues and conversations. This course takes concrete steps toward establishing an immersion environment in which the teacher and students operate exclusively in French. Various projects are also included in the curriculum throughout the year.

Text: *D'accord I* (Vista Higher Learning)
Allons-y (magazine subscription)
Nuit mystérieuses à Lyon (reader)

*Students who satisfactorily complete a foreign language in grades seven and eight may progress to Level II in the ninth grade. Graduation credit is earned on completion of Level II. To progress to Level II, satisfactory proficiency in oral and written assessments is necessary; those who do not show sufficient proficiency will be recommended to take Level I in Upper School.

French I

(Grades 9 - 12; 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. Conversational ability is developed by classroom interaction, practice in the language laboratory, and homework. Students learn a variety of basic vocabulary and idioms, verb conjugations in the present and past tense, 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. The pace of the course is rapid, covering roughly the equivalent of French 7 and French 8.

Text: *D'accord 1* (Vista Higher Learning)
Allons-y (magazine subscription)

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 practice their skills. Students will learn to work with the past tense (*passé composé* & *imparfait*), double-object pronouns, reflexive verbs and the conditional tense. Practice in conversation is continued in order to develop greater range and fluency. Skills are reinforced in the classroom, in the language laboratory and on homework, helping students to master speech patterns of increasing complexity including extensive expression in past and present. Students will also complete a group publishing project/presentation relating to a variety of themes pertaining to Acadian and Cajun culture in the United States, and finish the school year with a short novel and cultural study of Haiti.

Text: *D'accord 2* (Vista Higher Learning)
Bonjour! (magazine subscription)
Ma voiture à moi (reader)

French III

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

The class is conducted almost exclusively in French. The study of the four basic skills (writing; reading; speaking; listening) is continued with a strong emphasis on conversation, interpretation and analysis of authentic songs, videos, films, websites, documents and literature as well as Francophone culture on three continents, in order to increase fluency and global awareness. The study of basic grammatical principles and verb tenses is nearly complete by the end of level III, as students learn to refine the conditional and future tenses, *si* clauses and the subjunctive mood. Projects include regular creation and performance of dialogue sketches and presentations about areas of the francophone world.

Text: *D'accord 2* (Vista Higher Learning)
Ça va? (magazine subscription)
Selected short stories

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 discussion, written assignments, readings and listening exercises. New thematic credits are presented through a range of cultural and literary presentations and discussions. All of the language skills (listening and speaking being emphasized) are enhanced by work in the language laboratory.

Text: Révez 1st edition (Vista Higher Learning)

Le Petit Prince (Saint-Exupéry)

Chez nous (magazine subscription)

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 credits are presented 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. All of the language skills (listening and speaking being emphasized) are enhanced by work in the language laboratory.

Text: Révez 1st edition (Vista Higher Learning)

Le Petit Prince (Saint-Exupéry)

Chez nous (magazine subscription)

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. 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. A variety of films are shown to expose students to a multitude of styles, themes, and content in French and Francophone movies.

Text: Mise en scène: cinéma et lecture (Pearson Prentice Hall)

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.

AP French V

(Grade 12; Prerequisite: French IV 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, 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 over winter and spring break in order to help maintain the student's fluency. Blog posts and essays on a wide range of themes are also written weekly in preparation for the Advanced Placement examination.

Text: AP French Language & Culture (Barron's)

Une fois pour toutes (Pearson)

Selected poems by Ronsard, Louise Labé, Apollinaire, Prévert, Senghor

Short novels: M. Ibrahim et les fleurs du Coran (Schmitt), Art (Yasmina Reza), L'homme qui plantait des arbres (Giono)

Literary excerpts from Entre les murs (Bégaudeau), Cyrano de Bergerac (Rostand), La parure (Maupassant) along with their films

Beginning French (offered pending 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 basic verbs (in addition to the irregular verbs *avoir*, *être* and *aller*), and work with possessive and descriptive adjectives. (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.)

Text: Promenades- Vol. I (Vista Higher Learning)

Continuing French (offered pending enrollment)

(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 composé* 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: Promenades- Vol. I (Vista Higher Learning)

*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.

Text: *Team Deutsch* (Klett)

Selected short stories

*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.

Text: *Team Deutsch* (Klett)

Selected short stories

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.

Text: *Team Deutsch 2* (Klett)

Selected short stories

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: *Team Deutsch 3* (Klett)

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 such video series, news clips, a novel, magazine articles, and a film unit.

Text: *Denk Mal!* (Vista Higher Learning)

Selected novels

German V (NOT OFFERED 2016-2017)

(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.

Text: Selected novels

AP German V

(Grade 12; German IV 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.

Text: Prüfungstraining: AP German Language & Culture (Cornelsen)

Denk Mal! (Vista Higher Learning)

Selected novels

Beginning German (NOT OFFERED 2016-2017)
(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 other than German as their primary language of study can choose this course as a gently paced introduction to another language family. The course features basic vocabulary and those grammar topics most essential to basic communication in German: all tenses of the indicative are introduced, as well as the four noun cases. By the end of the year, students have been introduced to a bit of German culture and developed a basic communicative competence: they are able to describe, narrate, and ask questions in German.

Text: Team Deutsch I (Vista Higher Learning)

Continuing German (NOT OFFERED 2016-2017)
(Grades 11 - 12; Prerequisite: Beginning German; 2 periods/week elective; full year; 1/2 credit)

Those who have taken Beginning German and would like to continue developing their listening, speaking, reading, and writing skills in German should register for this course, which features both review and practice of the concepts and vocabulary introduced previously, and exposure to additional vocabulary, grammar and items of cultural interest. Students completing this course are prepared to begin German II.

Text: Team Deutsch I (Vista Higher Learning)

Beginning Russian (offered pending 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 (offered pending enrollment)
(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 (offered pending enrollment)
(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. The course features learning basic sounds, characters and vocabulary. It 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 (offered pending enrollment)
(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 dialogs to enable them to converse more fluently in basic conversations.
Text: Kuaile Hanyu II (Prentice Hall)

Continuing Chinese II (NOT OFFERED 2016-2017)
(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.
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.
Text: Descubre 1 (Vista Higher Learning)
¿Qué tal? (magazine subscription)

*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.

Text: *Descubre 1* (Vista Higher Learning)
Selected short novels

*Students who satisfactorily complete a foreign language in grades seven and eight may progress to Level II in the ninth grade. Graduation credit is earned on completion of Level II. To progress to Level II, satisfactory proficiency in oral and written assessments is necessary; those who do not show sufficient proficiency will be recommended to take Level I in Upper School.

Spanish I

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

This 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.

Text: *Descubre 1* (Vista Higher Learning)
¿Que tal? (magazine subscription)
Selected beginner novels

Spanish II

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

This course is designed to use and practice the material and grammar already learned, while adding the imperfect, perfect and future tenses and the subjunctive and imperative moods. It is a year of great expansion in active vocabulary and writing with compositions and presentations throughout the year. The class is conducted almost exclusively in Spanish including student questions, instructions and teacher presentations of material. Students continue to perfect their speaking and comprehension skills by using their Supersite, Descubre's interactive and supplemental website for student practice at home. Culture remains an integral part of the learning process.

Text: Descubre 2 (Vista Higher Learning)
Selected Readings

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 passages about the history, geography and literature of Hispanic countries, as well as small selections from classic Hispanic authors. Several projects involving research of a variety of topics are assigned.

Text: Descubre 3 (Vista Higher Learning)
El sol (magazine subscription)
Selected Readings

Spanish IV

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

This is a course designed to improve the communicative abilities of students. A wide range of writing, reading, listening and oral exercises will provide students with the necessary skills to communicate effectively in the target language. These may include individual or group presentations, voice recordings, essays and other exercises. Grammar concepts previously studied will be reviewed to strengthen the students' use of language. A 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.

Text: Conexiones- 5th edition (Pearson)
Selected literary texts

Spanish IV - Honors

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

This is a course 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. These may include individual or group presentations, voice recordings, essays and other exercises. 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.
Text: Conexiones- 5th edition (Pearson)
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: Intrigas (Vista Higher Learning)

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.

Spanish-AP

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

The course is organized to excel the students' proficiency across the three modes of communication: writing, listening and speaking. The class emphasizes Latin American and Spanish culture and literature embedded with history and current events. Expression and grammatical accuracy are highly emphasized and expected. Students are required to take the Advanced Placement Spanish Language and Culture examination in May.

Text: AP Spanish Language and Culture Exam Preparation (Vista Higher Learning)

Temas: AP Language and Culture (Vista Higher Learning)

Como agua para chocolate (Laura Esquivel)

La Casa de Bernada de Alba (Federico García Lorca)

Crónica de una muerte anunciada (Gabriel García Márquez)

La Dama del Alba (Alejandro Casona)

Selected readings by Llosa, Cervantes, Borges and Fuentes

Latin American Studies

Grades 11-12; no prerequisites & no language requirement needed; 4 periods/week; full year; 1 unit

This course aims to be an interactive and highly engaging study of many facets of Latin America and the experiences of its peoples. While the instructor initially creates topics, the course will be driven by student interest. Some course themes will include: Moors of Spain: Before Columbus, Independent Nations: A Broad Overview, Visibility of Afro-Descendants of Latin America in the 21st Century, Immigration and Social Justice, Indigenous Movements, Caribbean Islands: Cuba, Dominican Republic, Puerto Rico. The instructor will evaluate students based on in-class participation, short essays, oral presentations, and a research project. [NOTE: This course is taught in English.]

Text & Course resources include (but are not limited to) the following:

America: The Changing Face of Latin America by Peter Winn

The Cuba Reader: History, Culture, Politics by Chomsky, Carr, & Smorkaloff

The Kingdom of This World by Alejo Carpentier

I, Rigoberta Menchu: An Indian Woman in Guatemala by Rigoberta Menchu

Black in Latin America by Henry Louis Gates (Film)

José Martí: The Eye of the Canary (Film)

MATHEMATICS

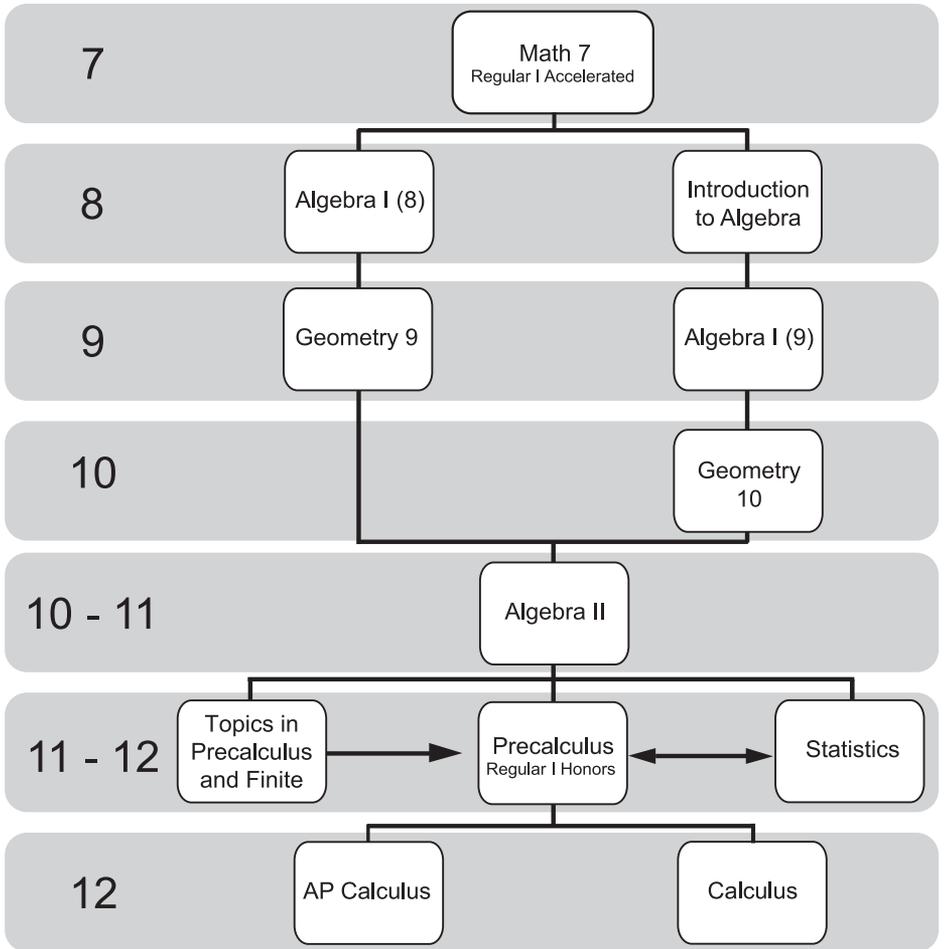
JBS Graduation Requirement: Two years of mathematics in grades nine through twelve. However, most colleges require Algebra II (see p. 7).

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 all courses, TI-84+ graphing calculator is required and is used to develop central ideas and skills.

In grade seven students are grouped according to results of a placement test and additional information. A two track sequence of courses chosen by the student and parent(s), with advice from teachers, starts in grade eight until grade eleven when an Honors Program is also offered.

On the following page a flow chart demonstrates the typical sequences of math courses:

Typical Course Sequences



Math 7

(Required; 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 and exploring topics and skills that are new and more complex. Students gain a solid foundation in arithmetic involving positive and negative numbers, fractions, decimals, percents, 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, volume of solids, and fundamental counting techniques. Extra time is devoted to study strategies, classroom skills, and the importance of showing and organizing work.

Math 7 Accelerated

(Required; 5 periods/week; full year)

This course is designed to build upon even the most rigorous elementary mathematics curriculum. It provides all students with a solid foundation in order of operations, integers, absolute value, algebraic proof, integer exponents, number theory, fractions, decimals, percents, equation solving, ratios, proportions, basic two-dimensional and three-dimensional geometry, and an introduction to probability and statistics. 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 process.

Introduction to Algebra

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

This course is the first in a three-year sequence that continues with Algebra I (9) and Geometry 10. This sequence covers the same core concepts that are included in the Algebra I (8) and Geometry 9 courses. A slower pace affords students greater opportunity to practice skills and 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 (8)

(Grade 8; required, if not in Introduction to Algebra; 5 periods/week; full year)

This course covers the same material in one year as Introduction to Algebra and Algebra I (9) do in one and two-thirds years. 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 extensively to enhance the level of understanding, as well as to provide alternative approaches in problem solving. This is a fast paced course. Rapid generalization and the ability to use abstraction are expected.

Algebra I (9)

(Grade 9; Prerequisite: Algebra I (8)/Introduction to Algebra; 5 periods/week; full year; 1 credit)

This course continues from Introduction to Algebra by reviewing topics studied in that course while completing the remaining Algebra I topics. Emphasis is on the skills of algebra and the understanding of algebra as a symbolic language to be used for problem solving. The TI-84+ calculator is used to enhance the understanding of algebra through its graphing capabilities. During the last third of the year, students begin a study of geometry which they continue in Geometry 10 the following year. This course can also serve students who need to strengthen their algebraic knowledge and problem solving skills after Algebra I(8).

Geometry 9

(Prerequisite: Algebra I; 5 periods/week; full year; 1 credit)

The goals of this course are two-fold, content and form. The content includes definitions, postulates and theorems; the concepts and applications of congruence and similarity of triangle and polygons; parallel lines; the Pythagorean theorem and its applications; the geometry of circles; analysis of area and volume; basic techniques of analytical geometry; description of locus; constructions. These content areas are used to develop understanding of the form and processes of mathematics. Students learn the fundamentals of formal logic and the techniques of formal proof; they learn that conclusions must be consistent with the assumptions on which they are based; they are asked both to understand and to communicate the mathematical ideas they encounter.

Geometry 10

(4 periods/week; full year; 1 credit)

This course begins with a thorough review of the geometry concepts covered in Algebra I (9) and then continues with an in-depth exploration into many new geometry topics. Upon completing this course, students will have spent one and one-third years on a thorough study of geometry. This course focuses on both the content and form of geometry, with emphasis on the techniques of formal proof and the application of geometric concepts to a range of problem types. The topics covered in this course are similar to those covered in Geometry 9, but at a pace that affords students more opportunities to practice their skills. An introduction to right triangle trigonometry is included.

Algebra II

(Grades 10 - 11; 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, variation and radical. When appropriate, 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 is that students learn to discern which of these many methods is most appropriate in a given situation.

Precalculus - Honors

(Grade 11; Prerequisite: departmental approval; 4 periods/week; full year; 1 credit)

A rigorous presentation of the advanced mathematics needed for calculus is offered in this course. Most of the theorems used are proven in class discussion. Emphasis is placed on the ability to graph and analyze exponential, logarithmic, rational and polynomial functions. An in-depth study of trigonometry is completed. Detailed units on mathematical induction, parametric equations, polar graphing, and conics are also covered. Students are regularly challenged to synthesize and apply what they have learned to new problems. Because class discussions are so important, those taking this class are strongly urged to limit activities which take them out of class.

Precalculus

(Grades 11 - 12; Prerequisite: departmental approval; 4 periods/week; full year; 1 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 include nonlinear inequalities, polar graphing, conic sections, and parametric equations.

Topics in Precalculus and Finite

(Grades 11 - 12; Prerequisite: Algebra II; departmental approval required if dually enrolling in this course and Precalculus; 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, in conjunction with a personal budget project, increases the students' financial literacy and is intended to help students make prudent financial decisions. This course will benefit both students who seek to improve their skills prior to taking Precalculus and those planning to concentrate in the management, life, or social sciences in college.

Statistics and Data Analysis

(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. This course introduces students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. The examples used are drawn from many facets of life. Projects include the collection and analysis of original data by students. The TI-84+ calculator, with its statistical operations, is used regularly to support class investigations. In addition, a statistical software package, *Fathom*, is 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.

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. The calculator is used extensively throughout the course. 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 the calculus and is intended to help students transition smoothly into a college calculus course.

Calculus-AP

(Grade 12; Prerequisite: departmental approval; 5 periods/week; full year; 1 credit, Honors credit)

This is a college level first course in calculus which is both rigorous and intuitive. 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 elementary functions, limits and continuity, differential calculus with applications, integral calculus with applications and methods of integration, transcendental functions, polar co-ordinates, infinite sequences and power series. The calculator is used extensively throughout the course. Students are required to take the Calculus Advanced Placement examination, choosing either the AB or the BC level (see p. 9, section 8 NOTE). Colleges grant placement or credit based on the examination results. Because class discussions and group work are such an important part of the course, students electing to take Calculus-AP are strongly encouraged to limit activities which cause them to miss classes.

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

Mathematical Art

(Grades 9 – 12; Prerequisite: Algebra I; 2 periods/ week, can take either semester for 1/6 credit, or full year for 1/3 credit.)

Students will connect with mathematics through the wide and various world of art that is inspired and informed by mathematical tools and concepts. In addition to studying works by M.C. Escher and contemporary math artists, students will be working on a series of mathematical art projects of their own. We will make use of various media and discuss many modern and recreational math topics as a source of inspiration. The course will include a computer programming component as well as opportunities to employ the 3D printer, laser cutter, and CNC router in the IT Lab.

Economics

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

This course offers an approachable yet rigorous introduction to the study of economics. 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 the economic way of thinking, along with an understanding of the microeconomic and macroeconomic forces at work around us, will help each student to be a more educated consumer of goods/news/data and a more informed participant in the local/national/world economy and the democratic process.

Macroeconomics examines relationships among broad economic aggregates such as national income, saving, investment, consumption, employment, and the money supply. Students will 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. Coursework will prepare interested students to take the AP Macroeconomics exam. The syllabus will cover all AP Macroeconomics content, along with selected microeconomics topics, extensions, and enrichment that will help students apply the ideas and see the concepts at work in the world around them.

SCIENCE

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 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 work in the laboratory multiple periods per week. Those taking an Independent Study work individually with a science teacher-mentor to study a topic of interest through in-depth experimentation and research.

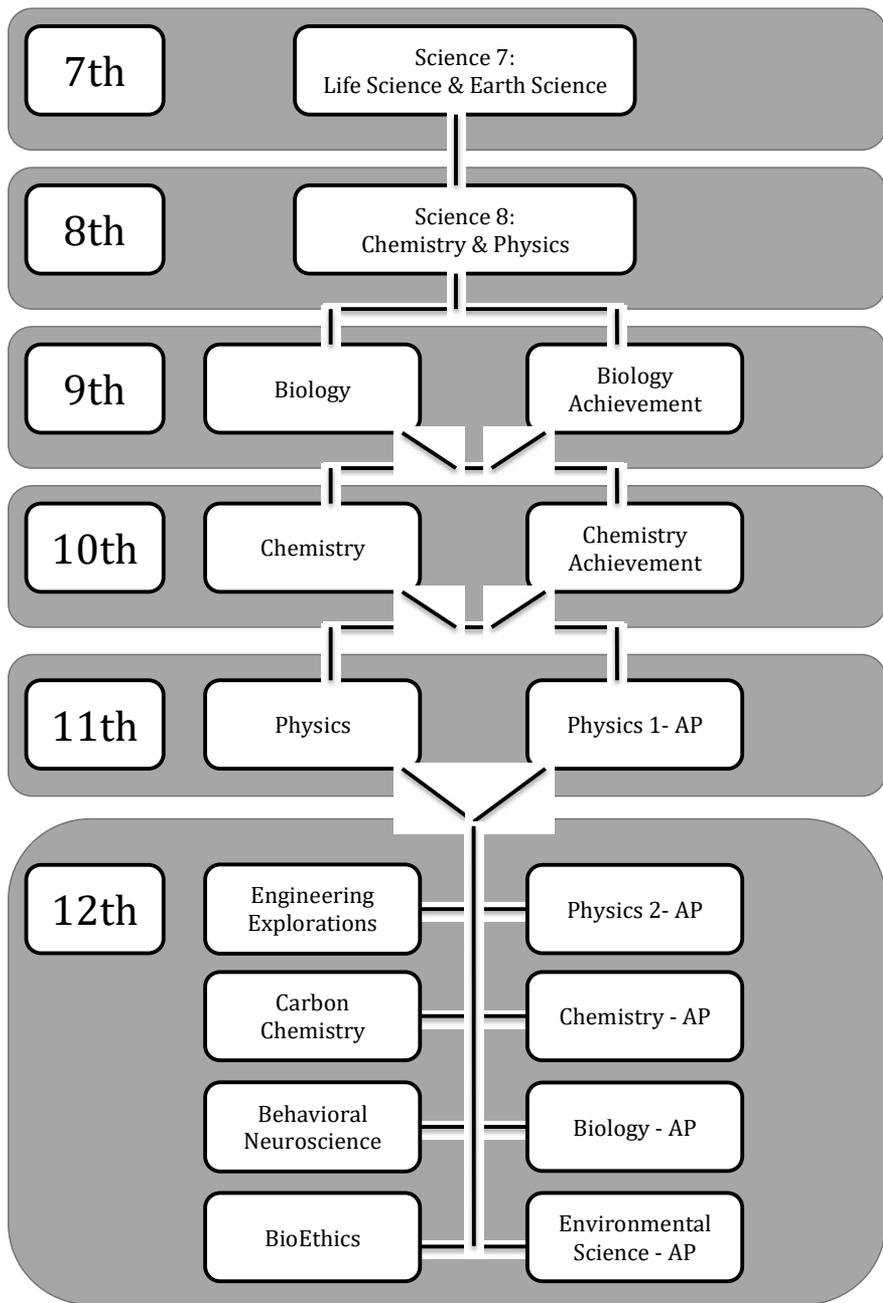
The sequence of courses in grades nine through twelve ensures that all students are presented the fundamentals of biology, chemistry and physics in their first three years of high school.

Students may write the SAT Subject test in Biology during their freshman year, in Chemistry during their sophomore year, and/or in Physics during their junior year. In their junior and senior years, students may elect an Advanced Placement (college level) science or a course on a topic of interest.

*****NOTE: The number of AP sections scheduled for juniors and seniors is determined by the number of sections that must be scheduled for regular courses and by AP enrollment projections. If actual enrollment exceeds class capacity, students asking for a specific AP course are chosen on the basis of their cumulative grade point average in Biology, Chemistry and Physics. Preference in this case is given to those who have shown the highest achievement in the strongest sequence of high school science courses.***

On the following page a flow chart demonstrates the typical sequences of science courses:

Typical Science Course Sequences



Exceptions to this flow chart are possible.

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

(Grade 9; 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 three periods are spent in the laboratory, carrying out experiments and investigations to enhance understanding and application of biological concepts. The remaining three 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 Achievement

(Grades 9; 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 Achievement is the appropriate course for students with strong math and reading abilities who already have well developed study habits and organizational skills. At the end of the course, students will actively prepare for the Biology SAT Subject test in biology.

Chemistry

(Grade 10; 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 (Achievement)

(Grade 10; Prerequisite: Biology and approval of Dept. Chair; 7 periods/week, full year; 1 credit)

This course is appropriate for students with strong study skills, for future science majors and for those considering taking the Chemistry SAT subject test. 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: The Science Department recommends the following for students who are considering Chemistry (Achievement): Students should have completed Geometry 9 with at least B's for both semesters. An Algebra I(9) student should have at least A-'s for both semesters.

Physics

(Grade 11; 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, sound, light, and electricity. 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

(Grade 11; Prerequisites: Algebra II, Chemistry, and approval of Dept. Chair; 7 periods/week, full year; 1 credit, Honors credit)

This first year course in physics covers motion, forces, energy, momentum, waves, sound, and electricity. 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. 9, section 8 NOTE).

NOTE: The Science Department recommends the following for students who are considering Physics 1-AP: Students should have completed Algebra II with at least B's in both semesters. A Chemistry (Achievement) student should have at least B's in both semesters and a Chemistry student should have at least B+'s in both semesters.

Independent Study-Science

(Grades 11-12; Prerequisites: approval by the teacher, department head, 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.

Upper School Courses

Behavioral Neuroscience

(Grade 12; 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. 49)

(Grade 12; 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. 9, section 8 NOTE).

Carbon Chemistry

(Grade 12; Prerequisites: Algebra II, Biology, Chemistry; 5 periods/week, full year; 1 credit)

The chemistry course is designed as an exploration of organic chemistry topics for students from either the Achievement or Regular 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. 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 biofuel production and quality control, medicinal chemistry, and common industrial processes will be explored. Students will spend one double period per week in the chemistry laboratory performing student centered laboratory work.

Chemistry-AP** (see note on p. 49)

(Grade 12; Prerequisites: Department Chair approval, Chemistry (preferably Achievement), Physics, 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. 9, section 8 NOTE).

Engineering Explorations

(Grade 12; Prerequisites: Biology, Chemistry, Physics (or concurrent registration); 5 periods/week; full year; 1 credit)

This course aims to introduce students to engineering, where the principles of math, physics, and science are applied to design solutions to human and societal problems. The first semester focuses on introducing students to the many disciplines of engineering such as biomedical, chemical, civil, computer, electrical, and mechanical. Hands-on, group labs will allow students to apply engineering concepts and design to solve real world problems, such as building a dome, creating circuits, and testing materials. Second semester will focus on the engineering design and redesign process, where students will choose a real problem and design a project to solve that problem, documenting along the way. Student progress is evaluated with problem sets, lab reports, exams and presentations, as well as design, construction, and teamwork.

Environmental Science -AP** (see note on p. 49)

(Grade 12; 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. 9, section 8 NOTE).

Physics 2-AP**(see note on page. 49)

(Grade 12; 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. 9, section 8 NOTE).

Bioethics (ONLY ONE SECTION OFFERED)
(Grade 12; 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.*

ARTS

JBS Graduation Requirement (grades 9-12): Four courses in the Arts: 3 in the Fine Arts (Visual or Performing), and 1 in the Practical Arts.

In order to earn the basic required credit, in a course that meets two periods a week, a student must enroll for a full year. After the requirement is met, a student may enroll for a minimum of one semester.

I. PERFORMING ARTS

A. 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

(7th 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. The chorus performs different styles of choral music in two and three part voicing. Students perform at least once per semester.

Chorus 8

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

This choral group is open to all 8th grade students, regardless of whether they have previously taken Chorus 7. Students continue to develop vocal and sight-singing skills and perform choral music of various styles, languages, and cultures. Students perform at least once per semester.

Burroughs Chorale

(Grades 9 - 12; no audition required, but by instructor approval; 3 periods/week; full year; 1/2 credit)

The Chorale focuses on developing both individual vocal technique and group choral singing skills. The Chorale prepares one concert each semester. Optional activities include performance in the traditional Holiday program, participation in an adjudicated choir festival in the spring or choir performance tour out of town.

NOTE: Membership in this ensemble may lead, by audition, to JBS Voices the following year.

JBS Voices

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

This advanced group is geared to the student who has excellent vocal and musical skills and wants to perform challenging choral literature of various styles. JBS Voices prepares one concert each semester. Optional activities include participation in the traditional Holiday Program, participation in the solo and ensemble festival, All-District and All-State Choir, and performance tours or festivals out of town.

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.

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.

Beginning Band

(Grade 7; 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.

Junior 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. Students perform at least twice during the school year. Instruments offered are flute, oboe, clarinet, trumpet, alto sax, tenor sax, baritone sax, French horn, trombone, baritone, tuba, electric bass and percussion.

8th Grade Band

(By audition; 3 periods/week; full year)

This class is offered to students with at least one year's experience on an instrument. Students continue studying the fundamentals of the instrument as well as concert repertoire. Genres 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. Students will perform on one fall and one spring concert.

Orchestra

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

Senior Orchestra is designed to provide 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, participation in 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)

Jazz Band is designed to help students master the performance skills needed to perform music in the jazz idioms of Blues, Swing, Latin, Fusion, Afro-Cuban, and other contemporary jazz styles. Jazz Improvisation will also be 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.

JBS Percussion Ensemble

Grades: 9 - 12; departmental approval required; 3 periods/week; full year, 1/2 credit)

Students with percussion experience study and perform repertoire specifically written for percussion ensemble. Genres studied may include traditional pitched, non-pitched, and Afro-Cuban music. The ensemble performs in at least two concerts during the year. Students are expected to supply their own sticks and mallets.

History and Theory

Music History

(Grades 9 - 12; no prerequisites; 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 & secular music, lieder & opera, and instrumental & 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.

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 who have an interest in exploring the craft of songwriting. Basic theory, chord progressions, song structure, writing lyrics, and preparing songs for public performance are some of the many elements explored. Students will study current pop music and learn what makes a song successful in today's media market. They will emerge from the class with at least one fully notated and recorded original song.

B. THEATRE, SPEECH & DANCE

Speech 7

(Required; 2 periods/week; 1 semester)

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.

Fundamentals of Acting

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

Students learn the basic fundamentals of performance through concentration, relaxation, and self-discipline, with an emphasis on improvisational acting.

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 points, 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.

Theatre 9 - 10: Intermediate Acting

(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 end note on Production Credits)

Improvisation

(Grades 10 - 12; Prerequisites: departmental approval, Theatre 9–10: Intermediate Acting; 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 end note on Production Credits)

Theatre 11 - 12: Advanced Acting

(Prerequisites: departmental approval, 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 end note on Production Credits)

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 John Burroughs Players 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.

Contemporary Theatre

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

This course will broaden and deepen students' understanding and appreciation for the performing arts by exploring the vibrant and varied offerings of St. Louis' professional theatre community. At various points throughout the year, students will attend performances and meet with professional theatre artists. These live experiences will guide the in-class discussions and readings, which will touch on script analysis, acting, directing, production design as well as the role of the professional critic and the business of theatre. While this course will benefit an aspiring actor, it is primarily designed to enhance the audience experience of any student regardless of his or her experience as a performer. Four "production credits" are required by year's end. (*see end note on Production Credits)

*Note: Production Credits are easily obtained by participating in some aspect of the JBS Players's 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, and Contemporary Theatre). Production credits are not required for Theatre Production 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)

II. FINE 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.

The Fine Arts Foundation Program is presented in 7th and 8th grade. There are five important areas for growth that we explore in 7th and 8th grade visual arts classes: perception, resourcefulness, character, craftsmanship and vocabulary. We vary our activities and assignments, but generally cover complementary skills and ideas and refer to these areas across media in both two-dimensional and three-dimensional art.

Painting/Drawing 7

(Required; 2 periods/week; 1 semester)

This course teaches students to observe and react to their surroundings in deeper and clearer ways. Explorations of portraiture, still life and landscape form the basis for observational study of fine arts at this level. Students can expect to work with charcoal, pastel, pen, graphite, watercolor and acrylics.

Painting/Drawing 8

(Required; 2 periods/week; 1 semester)

In addition to the introduction of figure drawing, studies from observation begun in Painting/Drawing 7 are continued on a more advanced level.

Sculpture 7

(Required; 2 periods/week; 1 semester)

Important areas of growth that we explore in our 7th and 8th Grade Foundation Program include perception, resourcefulness, character, craftsmanship and vocabulary. Students are guided through activities that complement the concepts and vocabulary of their Painting and Drawing experience. The 7th grade sculptors can expect to sculpt from observation, use a variety of clays and glazing techniques, including Raku and sawdust firing, and will mine clay on campus and construct and fire their own kiln. They will also braze steel portraits or animals and will cast small bronzes in cuttlebone molds into which they will carve in reverse.

Sculpture 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 in art and to the concept of meaning in art. Exercises will again complement their 2-D experience and include learning to appreciate and control proportion, perspective and composition and can expect activities that will challenge their resourcefulness. The 8th grade sculptor will learn to throw on the potter's wheel and can expect to learn a variety of new skills including extruding, slab building and more advanced modeling using perspective. Some 8th grade students will also enjoy a unit on the Japanese Tea Ceremony.

Painting and Drawing

(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 tempera, 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.

Sculpture

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

Sculpture presents the art student with the same types of issues faced by the professional - from compositional and aesthetic concerns to technical and structural requirements. The sculptors make use of a variety of techniques including welding, brazing, bronze casting, clay modeling, mold-making, aluminum riveting, etc. In periodic critiques, the sculptor is encouraged to become fluent and comfortable talking about sculptural issues.

Ceramics

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

This course explores design concepts through ideas developed during wheel work and hand building. Technical information covers glazing and low-fire techniques using Raku and earthenware clay and commercial low-fire glazes. Ideas are augmented by slides and group critiques.

Printmaking

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

Students are introduced to a variety of printmaking techniques and are exposed to historical and contemporary issues in the discipline. Students can expect to create solar plate etchings, linoleum cut prints, monotypes, and screen prints using non-toxic techniques and materials. Students are also required to make an edition of prints that will be included in a hand bound book project.

Painting and Drawing II

(Grades 10 - 12; 2 periods/week minimum for credit; full year; 1/3 credit)

This course expands upon the fundamental theory and practices of art introduced in Painting and Drawing, 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.

Sculpture II

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

The advanced sculptors deal with form and content issues, and the particular direction that each assignment may take is directly evolved from the concerns and issues of professional artists: striving for clarity, making the technical and the material appropriate to the idea, and generally encouraging more informed choices through a succession of guided assignments or exercises. This course builds on the technical and aesthetic experience gained in Sculpture. All media are available, including steel, bronze, plaster, wax, wood, etc. The critique is emphasized as a tool for evaluation and feedback.

Ceramics II

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

Building on the foundation of Ceramics I students are challenged to expand their vocabulary of ceramic form and surface. Technical understanding of surface techniques and ceramic processes are emphasized as tools towards formal and conceptual success. Students have the opportunity to pursue more individual exploration in tandem with class directed assignments. The critique is emphasized for peer evaluation and feedback.

Photography I

(Grades 10 - 12; 2 periods/week + 1 period/week with individual instructor; full year; 1/2 credit)

Basic black and white darkroom techniques are taught: exposure, developing, contact printing, and enlarging. Aesthetic 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 11 - 12; Prerequisites: Photography I, teacher/department approval; 2 periods/week + 1 period/week with individual instructor; full year; 1/2 credit)

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

Intensive Studies: Art

(Grades 11 - 12; any Level II art class, and/or instructor approval; 5 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 Painting and Drawing faculty.

Independent Study

(Grades 10 - 12; departmental approval; 1/3 credit)

Students develop, with their teachers, projects specifically designed to address their individual needs and interests in ceramics, painting/drawing, or photography.

The History of Classical Art: Its Genesis and Influence

(Grades 9 – 12; no prerequisites; 2 periods/week; full year; 1/2 credit)

This course introduces the history of classical art through lectures and slides. For each of three major modes of artistic expression, sculpture, architecture, and painting (including ceramics), the course will cover the origins and history of Greek and Roman art, beginning in the bronze age and stretching through late antiquity. We will then examine how it resonates in later periods, whether in the rejection or the adoption of classical forms and aesthetics.

If schedules allow, there are at least two fields trips planned: one to the St. Louis Art Museum, and one to Washington University's Kemper Museum of Art, where we may be able to view some Greek vases that are not on view for the general public. Other field trips may include, depending on current exhibitions, visits to the Pulitzer Collection, and the Contemporary Art Museum, as well as a walking tour of the Central West End or Compton Heights, where the houses exhibit remarkable influence of classical architecture.

III. 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 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.

A: COMPUTER SCIENCE

Beginning Computer Skills

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

This course introduces students to the computing environment at John Burroughs School. Students start with an overview of computer hardware, including both internal and external components of the computer. Students are then introduced to operating systems with a focus on OS X (Apple). The class provides an overview of the Google Apps interface that students use throughout the Burroughs experience. Moving forward, the majority of the course covers computer programming and computational thinking. Students begin programming using a graphical language with a drag and drop interface. Unhindered by cumbersome syntax errors that often frustrate beginners, students are able to focus on important general programming concepts. Students then move to text-based coding to apply concepts using real world programming languages. Special attention is given to the John Burroughs Acceptable Use Policy and the ethical use of computers.

Intermediate Computer Skills

(Required, grade 8; 1 period/week; full year)

In the 8th grade, students learn ethical computer use and hone their presentation and research skills. Students build on the media literacy skills learned in 7th grade Orientation by exploring the ethical use of copyrighted content found online and using that knowledge to create multimedia projects that make extensive use of images. Students master advanced presentation skills in conjunction with their science curriculum. They also explore effective searching techniques for the online catalog and databases as part of their spring social studies research paper. Advanced uses of online resources and Google Apps, are reinforced throughout the year. Special attention is given to our Technology Acceptable Use Policy and fostering good digital citizenship.

Introduction to Computer Programming

(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 and applets while solidifying knowledge of basic programming concepts. At the end of the course, students revisit Greenfoot to program a final game. This course provides a chance to try computer programming and acquire experience before enrolling in Computer Science-AP.

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 programmers. Students also work extensively with Adobe Creative Suite programs to aid them in developing their own web sites. 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. No previous programming experience is needed.

Computer Science-AP

(Grades: 11 - 12; Prerequisites: Instructor approval, and Introduction to Computer Programming or concurrent enrollment in Precalculus or higher; 4 periods/week; full year; 1 credit)

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

Students learn the basics of object oriented programming in the Java language. Topics include object oriented programming, control structures, classes, stacks, queues, trees and collections. Emphasis is given to the construction of software from the specification phase through testing and maintenance. It is assumed that students taking this course are willing to make a significant commitment of time and effort to learning the material. Ownership of a home computer capable of running recent versions of the Java compiler is a requirement.

B: 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 students' knowledge of science, technology, engineering, and mathematics. Students develop basic skills in 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)

The class meets two consecutive class periods a week for one semester. This course introduces students to basic manual drafting techniques used to produce technical drawing. Geometrics, orthographic, isometric and pattern layout drawings are covered. The students will first learn to read, visualize, interpret, sketch and draw various line types and line weights. Dimensioning and accurate measurement are stressed. The students will apply the process of technical design and record their progress in the engineering note taking format to produce an automata. The students will learn about cams, cranks, gears, ratchets, levers, pulleys and basic electronics. They will go through the engineering design process to produce a 1/32 scale slot car. The class culminates with testing the car designs on a slot car race track.

Industrial Technology/Engineering

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

This course introduces students to traditional woodworking projects, then advances to an innovative program in the design and development of a machine. Basic skills taught consist of interpreting working drawings and skillfully selecting and manipulating materials such as wood, metal and plastics. Fasteners, hardware and finishes are also included in instruction. The students will be required to keep a daily engineering notebook that will be checked at the end of each project. Each student will be taught basic electronics and programming and will apply this knowledge to build a machine such as an electronic gumball machine. Craftsmanship is stressed. A community service project will also be conducted during this class.

Project Technology

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

This course requires the individual study of the processes and techniques used by industry. Student-designed projects are arranged with the instructor who then guides the student through the processes necessary to complete the design and construction. Depending on the complexity of the project, time outside of the allotted two periods a week is often needed. Examples of student projects include entertainment cabinets, kitchen hutches, gun cabinets, trophy cabinets, sailboats, hope chests, book cases, piano benches, chests of drawers, tables, telescopes, and bobsleds. A daily journal is required and turned in each quarter. A written one-page report is also required and displayed with the projects at the annual Practical Arts Festival in the spring.

Architectural Drawing

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

Architectural Drawing offers students an opportunity to draft an original design of a vacation cottage. Architectural styles and construction methods are investigated. Students develop floor plans, elevations, plot plans, foundation plans, electrical plans and wall sections. A perspective rendering in the medium of the student's choice is required. Projects are displayed at the annual Practical Arts Festival in the spring.

Digital Audio Technology

(Grades 9 - 12; Prerequisite: Computer Video Editing or advanced musical training; 2 periods/week; full year; 1/3 credit)

This course is an independent study course that allows students to advance at their own pace. The goal of the class is for each student to learn to record, edit, and mix original digital audio mixes. Non-musicians can work from the large collection of modeled instruments, sampled instruments, effect plug-ins, and audio loops that are already on the computers. Students who have musical training can also create their own sound tracks by recording live music from instruments and live voices. The tracks can then be exported as MP3 files and recorded on a compact disk. Each student must complete two projects each semester. Daily class journals are kept by each student. Students will use the Logic Studio Pro software by Apple Computers. Example projects include: audio commercials, cover songs, foreign language projects, childrens' animated books, public service announcements, radio mystery shows, sound effects, and original songs. The students' work will be displayed at the annual Practical Arts Festival in the spring.

Computer-Aided Drafting (CAD)

(Grades 10 - 12; Prerequisites: Robotics, Project Technology or Theater Technology; 2 periods/week; full year; 1/3 credit)

This course provides students with a basic knowledge of drafting techniques used in creating two-dimensional and three-dimensional drawings both by hand and on the computer. Students will learn to create three-dimensional models using SolidWorks, an industry standard for technical drawing and engineering. Throughout the semester, students will learn to transfer hand-drawn models into the SolidWorks environment as well as create and print out models of their own design using 3D printers. Projects are displayed at the annual Practical Arts Festival in the Spring.

Advanced Architectural Drawing: CAD

(Grades 10 - 12; Prerequisite: Architectural Drawing; 2 periods/week; full year; 1/3 credit)

Students present their architectural design concepts by creating realistic 3D models using Chief Architect software. Students also create virtual walkthroughs from their designs using Blender. They produce detailed, professional plan sets with framing, electrical, plumbing, elevations, and cross-sections. Students learn how to arrange walls, windows, doors and cabinets in 2D and 3D. They also draft walls, windows, foundations, framing, stairs, decks, and electrical plans. Finally, they create realistic virtual models with interior and exterior textures to use in their walkthrough. Students gain experience using Chief Architect Software and

Blender, presenting their projects at the Annual Practical Arts Festival in the spring.

Computer Video Editing and Special Effects

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

This is an active-learning class which is project based. This course provides students with basic knowledge of computer and video editing techniques. Skills learned include: green screening techniques, transitions, composites, color manipulation, basic animation and titles, story board development, lighting, and video recording techniques. A rudimentary knowledge of current video software and equipment is also outlined for the students. Students get to choose two videos to produce each semester. Students will be using Adobe Premiere Pro and After Effects software. Cameras and video equipment are available for checkout just for the class. Examples of projects include: 15 second films, animations, documentaries, family films, how-to -films, human interest stories, nature segments, public service films, short films, silent films, team and or club films, commercials, admissions films and films of your own design. All quality videos will be shown in the annual John Burroughs Practical Arts Festival sponsored by: The John and James Franciscus Visual Arts Entrepreneurial Fund in the spring.

Independent Study - Industrial Technology

(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 registrar, 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.

C. FAMILY AND CONSUMER SCIENCE

Basic Foods

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

This is an introductory course to the selection and preparation of foods. Students understand the nutritional aspects of food and individual responsibility for nutritious food choice. Proper use of equipment is stressed. Students prepare a variety of foods within a small lab group, and also have the opportunity to choose their own recipes based on themes.

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 design and construct a patchwork pillow. They must then choose and complete a second, more difficult project. Basic hand sewing techniques are also introduced.

Gourmet Cooking

(Grades 11 - 12; 2 periods/week; 1 semester; 1/6 credit; \$45 lab fee)

Instruction is given in preparing basic gourmet meals with an emphasis on technique. Each week students prepare a full meal from various cuisines available throughout the world. Menus are planned according to skill level of the students.

Sewing II

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

This course is open to students who would like to advance to the next level of sewing. Students may choose their own clothing or craft project. This is an opportunity to enhance sewing skills, learn basic pattern alterations, or complete a more advanced project. Students have the option of taking the course for a full year to receive a 1/3 credit or for one semester to receive a 1/6 credit. Only a full year can be used to fulfill the practical arts requirement.

OTHER COURSES

Academic Support

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

The improvement of skills in reading & writing and math, and the development of study strategies and the enrichment of vocabulary are the goals of this program.

Orientation/Health Topics 7

(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.

Health and Wellness 9

(Required; 2 periods/week; 1 semester; 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 seeks to nurture cross/intercultural skills and perspectives that help students become global citizens and leaders. Each week we focus on one or more of the following themes:

1. Identity
2. Cross/intercultural Communication and Listening Skills
3. Group Dynamics and Alliances
4. The Global Citizen/Leader

Grades are based on performance in the following areas:

1. Class participation. Discussions are held on a regular basis in class and in smaller groups. Because the course is discussion-driven, on most days students are graded on participation in terms of both quality and quantity.
2. Written assignments. Students produce journals or RTRs (Reading/Thought Responses) to monitor short readings, personal thoughts, and in-class activities.

Basic Gardening

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

This course introduces beginning gardening — sowing, maintaining and harvesting crops. Each student has his or her own garden to cultivate. Students learn about seasonal and regional crops, how to compost, and the pros and cons of organic gardening. Students also learn how to start seedlings, preserve foods and study horticulture. No prior knowledge of gardening is needed.

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.

Grades 7 - 8

(Required; 2 periods/day, Monday through Thursday, full year)

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

Boys, Grade 9 & 10

(Required; 1 credit)

Each student must make 1 selection from the list below for each of 3 seasons.

FALL

Cross Country
Fitness*,**
Football
Soccer
Swimming

WINTER

Basketball
Dance - Performance
Fitness*
Ice Hockey
Wrestling

SPRING

Baseball
Fitness*, **
Golf
Lacrosse
Tennis
Track
Water Polo

*(Fitness may be selected 1 of 3 seasons only)

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Boys. Grade 11

(Required; 1 credit)

Each student must make 1 selection from the list below for each of 3 seasons.

<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
Cross Country	Basketball	Baseball
Fitness*,**	Dance - Performance	Fitness*, **
Football	Fitness*	Golf
Soccer	Ice Hockey	Lacrosse
Swimming	Wrestling	Tennis
		Track
		Water Polo

*(Fitness may be selected for 2 of the 3 seasons only)

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Boys. Grade 12

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

Each student must select at least 1 sport + 1 fitness + 1 free season.

<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
Cross Country	Basketball	Baseball
Fitness**	Dance - Performance	Fitness**
Free	Fitness	Free
Football	Free	Golf
Soccer	Ice Hockey	Lacrosse
Swimming	Wrestling	Tennis
		Track
		Water Polo

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Girls, Grades 9 & 10

(Required; 1 credit)

Each student must make 1 selection from the list below for each of 3 seasons.

<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
Cross Country	Basketball	Fitness*, **
Field Hockey	Dance - Performance	Lacrosse
Fitness*,**	Fitness*	Soccer
Golf	Ice Hockey	Track
Tennis	Swimming	Water Polo
Volleyball		

*(Fitness may be selected 1 of 3 seasons only)

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Girls, Grade 11

(Required; 1 credit)

Each student must make 1 selection from the list below for each of 3 seasons.

<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
Cross Country	Basketball	Fitness*, **
Field Hockey	Dance - Performance	Lacrosse
Fitness*,**	Fitness*	Soccer
Golf	Ice Hockey	Track
Tennis	Swimming	Water Polo
Volleyball		

*(Fitness may be selected 2 of 3 seasons only)

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Girls, Grade 12

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

Each student must select at least 1 sport + 1 fitness + 1 free season.

<u>FALL</u>	<u>WINTER</u>	<u>SPRING</u>
Cross Country	Basketball	Fitness**
Field Hockey	Dance - Performance	Free
Fitness**	Fitness	Lacrosse
Free	Free	Soccer
Golf	Ice Hockey	Track
Tennis	Swimming	Water Polo
Volleyball		

** (Instructional dance is offered as a fitness credit in Fall and Spring)

Independent Athletic Activity (IA)

(Grades 9 - 12)

In place of fitness, a student may choose to participate in a non-school sponsored athletic enrichment activity (IA). An IA must be supervised by an adult 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)

Students may receive, under certain circumstances, physical education credit for participation in Drama.

Outdoor Education

(Grades 9-12)

Students may select outdoor education as a sports 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 at 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. So, for example, a student who elects to take outdoor education for the winter sports credit may need to take trips during the spring or fall in order to complete the hours required. 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 department secretary 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 E = excellent, S = satisfactory, or U = unsatisfactory. When a student receives a U 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 interest 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 50 clubs and activities currently offered can be found on the JBS website.

The World

(Grades 9 - 12; 1 period/week; 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, 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 9 - 12; full year)

Students work together, from the beginning of the school year through March, to produce a traditional yearbook. Under the direction of senior editors-in-chief, students are responsible for writing and editing, photography, page layout, computer input. Most work is done in the evenings, but staff can work in the Publications Lab during free periods, after school and on weekends.

The Review

(Grades 7 - 12 for submissions of art and writing; Grades 9 - 12 for editorial staff)

This publication, for art and writing (poetry, fiction or essay), reviews student and faculty work. In addition to producing a magazine, the group encourages student writing, revision, and informal discussion about art and language. Usually the staff meets weekly during a period determined at the beginning of the school year.

Model UN

(Grades 7 - 8; unlimited membership)

John Burroughs School, in co-ordination with the Greater St. Louis Chapter of the United Nations Organization and Civitas Associates, participates in a middle school program with eighteen other schools - public, private and parochial. This program promotes an understanding of the operations and mission of the United Nations by drafting resolutions, researching countries and their concerns, and voting on sample resolutions.

The activity for lower school students begins in November, and entails a series of seven to nine Friday after-school sessions. Country delegations are assigned in December, and each country must draft a resolution, in order to qualify for participation in the General Assembly in April. This culminating activity is a simulation, which involves participants from three to five other schools, in which students engage in role-play, caucus, formal presentation, and lobbying activities. This program provides important fundamental skills, which many students apply in the upper school Model UN programs.

THIMUN

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

THIMUN (The Hague International Model United Nations) takes place in the Netherlands annually during the last week of January; more than 3,500 students from 90 countries assemble in The Hague to emulate the workings of the real United Nations. Burroughs is among the few fortunate schools from North America that attend this conference.

Applications for current JBS juniors and seniors are accepted early in September. Students may apply as a delegate or as a student officer, serving as a committee chair, a member of the International Court of Justice, or as a member of the conference daily newspaper, MUNITY. Student applicants come from the St. Louis Model UN participants and the upper school debate classes as well as from the JBS student newspaper. When Burroughs is notified (in October) what country it is to represent, students begin their research and resolution-writing. By design, the organization is student-run; officers are chosen by the participants and all the UN simulation work is done by them.

Model UN (SLAMUN)

(Grades 9 - 12; limit 24; by appointment)

During three sessions (one each in fall, winter, and spring) students from St. Louis area schools engage in this 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 hear guest speakers, to become knowledgeable on current world events, and to write resolutions and plan debating procedures.

Participants from grades 9-12 are selected by student officers prior to each session, based on an essay by each candidate. The Chief Delegate, selected in the spring by faculty advisors and current leaders from among the active students, is responsible for attending Sunday meetings, distributing information, gathering travel documents, and assigning delegates.

Student Congress

(Grades 7 - 12; full year)

Student Congress is comprised of the President from each class, the Chief Justice from Court, the Student Body President and an appointed secretary. 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. Member of Congress also organize several traditional school events, including the 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, and a Bailiff. Each member of the Court, except the Bailiff, is entitled to one vote. The Headmaster 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 Committee

(Grades 9 - 12; full year)

This student committee learns about and promotes voluntary community service. The committee meets on Special Meeting Days to discuss, plan, and participate in student volunteer work. Yearly events usually include sponsoring the Holiday Food Drive, packing Christmas baskets, the January Drive, participating in dances for the retarded, helping at the Special Olympics, going on a field trip, and hearing guest speakers. The field trip is open only to those students on the committee; all other committee-sponsored activities are open to any student. The Montgomery Plan officers are chosen by the faculty sponsor on the basis of past commitment and involvement and leadership.

Other Clubs and Activities

Aim High	JBS Players
American Patriot Association	KIVA
Animal Allies	JBS Knitting Club
Asian Culture Club	KUTO
Astronomy	(Kids Under Twenty-One)
August Days	Light & Sound Crew
Cheerleading	Math Circle
Chemistry Club	Music for Charity
Chess Club	Outdoor Ed (Outdoor X)
Classics Club	Physics Club
Dance Squad	Proud to Be Me
Diversity ETC	Quad Fun Club
Environmental Awareness Club	RAD (Reaching Adolescent Drivers)
Exploravision	Robotics Club
Extra Hands for ALS	Science Olympiad
Film Club	Sixth Man Club
French Club	Spanish Club
Future Business Leaders of America	Spectrum
GEO (Gender Equity Organization)	Sports for Charity
Guild of Geeks	Super Mileage Vehicle Challenge
GYLI	World Religions Club
(Global Youth Leadership Institute)	Transcending The Dream
International Student Exchange	Works In Progress
Committee (Formerly American	World Religions Club
Field Service)	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. The Director of Academics can provide information on this.

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. Self-challenge: encourage the student to extend boundaries of performance.
- b. Broadening self-image and developing self-confidence: confront new, challenging situations to discover new capabilities and strengths.
- c. Learning self-reliance: encourage independence when meeting a challenge, so that the student learns to think and act responsibly and autonomously.
- d. Learning constructive participation: learn both to contribute within a problem-solving group, and to depend upon the peer group for success.
- e. Learning a new relationship with nature: introduce the student to new perspectives on our inter-dependence 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 (Dr. Deken)
(Grades 8 - 12)

Drey Land Plus is an orientation program for new students in grades eight through twelve 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 appropriate grade level Principal, based on their leadership skills as well as an appreciation and understanding of the program.

Biology Field Study at Drey Land
(Required, grades 9 or 10; Spring; see pg. 51)

International Trips

International Student Exchange

Through the American Field Service JBS brings an exchange student to live in St. Louis and attend Burroughs. Families interested in hosting an exchange student should contact the Modern Language department head.

Foreign Study/Exchange

At the crux of a John Burroughs School education lies the goal that its students go on to, through, and beyond college as citizens educated in the breadth of our world's complexity. Cross-cultural perspective represents an important part of liberal education. It is natural, then, that the school encourages students to pursue, if possible, the personal and educational benefits which traveling abroad inevitably brings. In the big picture, they serve to enhance our students' preparation toward human and intellectual excellence. In more specific ways, international programs broaden the perspectives and deepen the understanding and competence students bring to particular courses they study.

Various departments sponsor trips related to their subjects (e.g., Classics: Rome and southern Italy; Science: Grand Canyon; History: Washington, DC) during vacations, and individual faculty members occasionally lead foreign expeditions.

A. Classic Department Trips: Italy and Greece

Opportunities to study in Italy or Greece are offered each year by the Classics Department. 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 in March of 2017. A Greek trip to the mainland and the islands is offered in June of 2016 and will be repeated in future years. Priority will be given to both students and alumni, who have taken Greek or Latin.

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. The Greek trip begins in mainland Greece, visiting 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 on the Turkish mainland.

B. Modern Language Department Trips

Modern language students who have spent 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 serve to motivate others, which benefits everyone engaging in those courses of study. Furthermore, an experience abroad can improve a student's achievement at Burroughs; it can enhance the maturity and perspective colleges look for in potential students, and improve college language placement.

The Modern Language department sponsors trips in each of the core languages offered. These have met the criteria which the department and school have set in order that students be best served from an educational standpoint, for enjoyment, for convenience, and for affordability. Burroughs faculty chaperone the trips. The school can provide financial aid for students with need.

French Exchange (alternating years: 2015, 2017, etc.)

Students will be paired with a French student and take part in a 3-week trip in June that incorporates a 10-day homestay (our partner school will be staying with their Burroughs student for two weeks in April). The group will also spend time in Lyon, Paris, Versailles, Giverny, Avignon, Nimes, Les Baux de Provence and Chamonix.

German Exchange (yearly, though travel to Germany takes place on alternating years: 2016, 2018, etc. and German students visit 2015, 2017, etc.)

Three week trip at the beginning of the summer featuring a two week homestay in Stuttgart and travel to Munich, Salzburg, Strasbourg, Zurich, and Berlin; those who travel host their partners here in St. Louis the following year in the spring.

Spanish Trip (alternating years: 2015, 2017, 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, visits to museums, and hopefully attend a play, a zarzuela and/or a flamenco performance.

Spanish Service Trip (alternating years: 2016, 2018, etc)

This is a ten day trip at the beginning of 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 jewel of a colonial city, Granada. This community service trip will be offered biennially to students of Spanish in grades 9 – 11.

Other Special Programs

Career Awareness

(Grades 7 - 12)

The Rassieur Career Awareness Center is located in the College Counseling Office and provides information on post-college and graduate level 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.

The Montgomery Plan for Voluntary Community Service (Mrs. Barnes)

(Grades 7 - 12)

Students may volunteer at one of the many non-profit charitable or cultural agencies in the community. Forms explaining the Montgomery Plan guidelines are available at the receptionist's desk.

NOTE: It is not necessary to belong to the Montgomery Plan Committee to do volunteer work. Many JBS students do volunteer work in the summer.

Community Service During the School Day (Mrs. Barnes)

(Grades 11 - 12; 1.5 - 2 hours/week, full year)

Older students who have sufficient free periods and their own transportation can do community service during the school day. Three consecutive periods are needed. Students can make this request known when making their course selection in the spring. Arrangements for this full year commitment are made with the faculty sponsor in the fall after students have received their class schedules. Nearby agencies include the Miriam School, Cerebral Palsy, Bethesda-Dilworth Home, Salvation Army Shelter, and Childgarden School. Each agency has different days and hours when volunteers are needed.

August 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 (the number of boy and girl counselors is balanced), 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 (Mr. McKone)

(Grades 10 - 12)

Aim High is a partnership between John Burroughs School, The Saint Louis Priory and fourteen elementary schools in the St. Louis City school system - Ames, Ashland, Clay, Côte Brilliante, Jefferson, Kennard, Laclede, Lafayette, Mark Twain, Scruggs, Shenandoah, Sherman, Woodward and Wyman, as well as Bishop in the Wellston school district, and the Maplewood/Richmond Heights elementary school. 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 fifth grade 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.

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.

Drey Land Plus (Dr. Deken)

(Grades 8 - 12)

Drey Land Plus is an orientation program for new students in grades eight through twelve 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 appropriate grade level Principal, based on their leadership skills as well as an appreciation and understanding of the program.

Alternate Senior Program

(Grade 12)

A senior can apply to take special courses, in lieu of a full course load at Burroughs, registering at local colleges. 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.

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 are finally proposed to the May Project Review Board in April. Details about the process and the guidelines are available from the Principal. Past experience has shown that this experience is valuable personally for seniors as they complete their high school career and look toward college.

John Burroughs Players (Mr. Pierson and Mr. Battles)
(Grades 7 - 12; by audition)

The Players produce one theatre production each season for the public. Audition is required. The work of the group occurs outside regular school hours.

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NOTE: Courses with the suffix AP require that the student write the Advanced Placement examination to fulfill the requirements of that course. Other courses may prepare students for this examination, but do not require it. (e.g., Latin V, Modern European History, United States History).

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