

St. Francis School Downtown Campus

2015-16 Curriculum Guide

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Introduction to the 2015-16 Curriculum Guide

Curriculum Overviews and **Student Profiles** can be found under each department heading.

These elements aim to make the Guide more communicative to students and parents. Core values and characteristic approaches of each academic discipline are briefly described in the Curriculum Overviews; the variety of ways a student can successfully make the journey through each of the academic fields is illustrated in the Student Profiles.

The Student Profiles are not intended to portray specific real individuals. They are composite portraits, created in each department and derived from teachers' experience with a variety of young people. The students' names are fictional, as are the academic histories and trajectories summarized in the Profiles. But the Profiles represent our belief in the diverse manifestations of academic success and in the wisdom of identifying and celebrating achievement in multi-dimensional ways; they also represent our efforts to recognize individual tastes and talents and evoke the best in every student.

All course descriptions are also on view in the 2015-16 edition. A special effort has been made to represent the material and procedures in each course in a concrete and detailed way. Students and parents are asked to read the Guide with care, and to ask questions about the courses on offer.

Students and parents should bear in mind that not every course listed in the Curriculum Guide will be offered in every semester/year. Please consult the Registration Form for those classes potentially available in a given semester. (Actual course offerings will be based on student interest and teacher availability.)

Requirements and Policies

A strong college-preparatory program includes four years of English and history, three or more years of mathematics and sciences, and two or more years of foreign languages. Students are required to take six credits of academic courses in the ninth grade and a minimum of five credits of academic courses in subsequent years, plus physical education/athletics.

A minimum of 22 credits are required, including

English	four credits; must be English I, II, III, and IV
History	three credits, one of which must be US History. All students are required to take a history course every semester
Mathematics	three credits, with required completion of Algebra I, Geometry, and Algebra II
Science	three credits, with required credit in both physical and natural sciences
World Languages	two credits earned at the high-school level
Art	one credit, typically earned in the tenth grade
Fitness, Health and Skills	one credit earned in the ninth grade
Athletics	three athletic activities, one each in Grades 9, 10 and 11
Senior Project	one credit in the Senior year

Students should keep in mind that when colleges look at a transcript, they consider not only grades, but the quality and difficulty of the courses a student has taken. The overall quality of a student's program is more important than just grades or number of courses. Graduation requirements ensure variety on transcripts, and electives are offered for depth in special areas of interest.

Credit for one-semester and full-year courses

The school year at St. Francis is divided into semesters. Full-credit courses meet for the equivalent of one period daily during the full year, and mastery of course objectives earns one credit. Half-credit courses meet for either the equivalent of a period daily for one semester or two to three periods weekly for a full year, and mastery of course objectives earns one-half credit. A student who fails one semester of a year-long course but passes the other semester in a demonstration of accumulated mastery may earn the full credit.

Basic Course Sequence

	9th Grade	10th Grade	11th Grade	12th Grade
English	English I	English II	English III	English IV or AP
History	C&C I: Ancient	C&C II: Medieval	US History	Senior Sem. Or AP
Mathematics	Algebra I*	Geometry	Algebra II	Student Preference
Science	Physics	Chemistry	Biology	Student Preference
World Language	French, Spanish, Chinese I**	French, Spanish, Chinese II	Student Preference	Student Preference
Art		Art I, Music, Photo, Video	Student Preference	Student Preference
Health	Health & P.E., Athletics	Athletics	Athletics	Student Preference
Electives			Student Preference	Student Preference

** Students who have interest and appropriate background may place out of Algebra I, Geometry, or Algebra II their freshman year, and may be accelerated in the sequence.

**Students who have interest and appropriate background may place out of the first year(s) of World Language, and may be accelerated in the sequence.

Grading Procedures

The St. Francis grading scale is as follows: *A+* (98-100), *A* (92-97), *A-* (90-91), *B+* (88-89), *B* (82-87), *B-* (80-81), *C+* (78-79), *C* (72-77), *C-* (70-71), *NC* (0-69). Grade point averages are calculated on an unweighted 4.0-scale as follows: 4.3 (*A+*), 4.0 (*A*), 3.7 (*A-*), 3.3 (*B+*), 3.0 (*B*), 2.7 (*B-*), 2.3 (*C+*), 2.0 (*C*), 1.7 (*C-*), 0.0 (*NC*).

Course Placement upon Entry

Placement in math, science and world languages will be based initially on satisfactory performance on an entrance exam and/or the student's having satisfactorily completed the previous level at another school. Reassignments may need to be made once school begins.

Advanced Placement Courses

A number of courses at St. Francis are based on course outlines developed by the Advanced Placement Program of the College Examination Board. These courses have the workload and sophistication of courses found at the introductory college level. Taking such a course at St. Francis offers the student more academic challenge, an opportunity to see what college requirements are like, and the possibility of gaining college credit. At the same time, the student has the advantage of the St. Francis small-class atmosphere, more frequent class meetings and readily available help from teachers. Student performance in these courses can be evaluated on a nationwide scale if the appropriate AP exams are taken in May. Many colleges give course credit for high grades on AP exams. The exams themselves are good practice for the cumulative three-hour exams often given in college.

At St. Francis, the following courses help prepare students for AP exams: AP English Literature, AP Calculus AB and BC, AP Chemistry, AP Biology, AP Physics, AP Environmental Science, AP Statistics, AP U.S. History, AP European History, AP Chinese Language, AP French Language, AP Spanish Literature and AP Spanish Language. These courses have heavier workloads than do regular courses; therefore, students interested in taking one of these courses need to consider carefully their overall course loads in consultation with teachers and their advisor. Students with appropriate prerequisites (as noted for each course) will be accepted into an Advanced Placement course based on the recommendation of teachers. Students who enroll in an AP courses at St. Francis are required to sit for the exams in May. In addition to the courses offered, ad hoc preparation is offered for the AP Physics B, AP World Civilization, and AP English Language exams.

Independent Study

Individual students or small groups may apply for independent-study projects under faculty guidance. Independent-study projects permit extensive work with outside sponsors or a faculty tutor in a wide range of academic and non-academic fields. Depending upon the nature of these independent study projects, students may receive credit. With the school's approval, students may also enroll in other institutions for courses not available at St. Francis.

Outside Credit

Students wishing to pursue learning projects outside of SFS can receive St. Francis credit for class work that has been pre-approved by the Head of Downtown Campus and the Registrar. While St. Francis grants credit for these courses, grades will not be transferred; any grades received for outside course work will not be averaged into the student's GPA. Students may be required to pass a St. Francis examination in order to receive credit for required courses.

Transfer Credit

Students transferring to St. Francis must request that an official transcript from their previous school be sent to the Registrar's Office at St. Francis. The previous school's transcript will be attached to the St. Francis transcript. Credits earned at a previous school(s) will be included in the total number of credits required for graduation from St. Francis, although grades from previous schools will not be included in the St. Francis GPA. St. Francis transcripts show semester grades.

Community Service

Community service is an important part of the St. Francis curriculum each year, with students and faculty/staff participating in six half-days of service each year.

The Senior Project

The Senior Project is intended to provide all St. Francis seniors with the opportunity to devote significant effort and time to a project focused on that which vitally interests them; develop the research skills expected of college-bound students; make a public presentation of their work; and demonstrate that their years at St. Francis have culminated in mature and confident scholarship. During the junior year, students determine and describe their projects and choose their advisors; they complete research, written, and performance components of their projects in their senior year. The Senior Project is a requirement for graduation; all those receiving a St. Francis diploma will have successfully completed this demanding and long-term undertaking, and will have thus demonstrated the skills and commitment that diploma certifies. *See more about the Senior Project on page 32 of this Guide.*

English

English Department Curriculum Overview

English at St. Francis is an intimate, collaborative and creative practice.

Inside the English classroom, students' desks are ranged in circles or their chairs around a seminar table. For the ten months of the academic year, English teachers and students are members of a small community in which each student's intellectual, aesthetic and personal discoveries are elicited. The heart of English teachers' work at St. Francis is to arrange for, encourage, model, coach, and, when necessary, insist on thoughtful expression in individual voices. The heart of students' work in English is a variety of projects and texts leading a variety of individuals to the pleasures of literacy and of confident, competent self-expression; the heart of students' work is also collegial, as in workshops and seminars they experience the whole as greater than a sum of parts, taking part in a searching, open-minded, many-voiced conversation.

Outside the classroom, our communal dialogue begins on the first day of school, when every member of the school community – students, faculty, and staff – shares his or her response to the all-school summer-reading. That discussion continues throughout the year at every Morning Meeting, which ends with a student or staff member reading a poem of his or her choosing. During the Showcase of Students Plays in the spring, student writing in a variety of genres is performed on two nights running, typically to a sell-out crowd. The communal conversation comes to a close at the end of the year, with the publication of an ambitious student literary magazine and the presentation of staff-written speeches about each graduating senior. The collective creative process also involves extra-curricular activities, like the songwriting and theatre clubs, and independent creative projects, such as student-created mix tapes, chapbooks and creative-writing Senior Projects. The St. Francis community is a space of publication and engaged literary discourse.

At St Francis, we believe that to take the time, effort, and care to consider not only what we say but how we say it, and to pay close, careful attention – whether as participants in a revision workshop, readers of a monumental poem, or audience members at a spoken-word performance – to the words of others are not only indispensable human responsibilities but also educated pleasures no one should have to live without.

English Department Student Profiles

Dante

Dante began high-school feeling pretty certain that writing wasn't his thing. But he was surprised by writing a memoir piece – about a near-drowning experience in his early childhood – that grabbed the attention of his freshman classmates and teacher, and he found that he enjoyed discussing Jonathan Safran Foer's novel, *Extremely Loud & Incredibly Close*: speculating about the psychology of the novel's central character was stimulating. Writing about poetry turned out to be just as difficult as he had imagined, but the edgy, antic poem drafts he and others assembled in a "found-poetry" creative project impressed him. The year's final quarter, in which students acted out and directed scenes from *The Tempest*, was more engaging than he would have guessed.

Although he still lacked confidence as a writer, Dante began 10th grade by writing a sensitive, mature personal essay about his grandmother's kitchen. He spent the rest of the first semester studying vocabulary and reading Appalachian short stories and Kazuo Ishiguro's *The Remains of the Day*, and revising his formal-response essays. He was getting better at

expressing and organizing his thoughts. After *The Tempest*, *Much Ado About Nothing* didn't look so hard, and he ended up proud of having made his way through two Shakespeare plays now, before finishing the year in a study of contemporary song lyrics as texts for the study of poetic craft.

Dante arrived in Junior English with a familiarity with techniques for building arguments and quoting text. Over the course of the year, listening to others' drafts and reading his aloud, and with much teacher response and encouragement, he became confident in crafting interesting leads and supporting paragraphs. He learned a lot about the history of race issues in America and was able to understand why *Huck Finn* is such a controversial novel. He stopped objecting to the activity of unfolding a subtext in close-reading: the process began to interest him. And he gained more practice with seminar-style discussions, as he and his classmates, prompted by the American literature of English III, conducted serious discussions of race, class, gender and attitudes toward nature.

In his Senior fall, increasingly confident of the value of his own ideas and experiences, Dante repeatedly revised the college essay he had been thinking about since the summer. As he read *Hamlet* in the second half of the semester, he was surprised by how the dense language no longer seemed totally impenetrable. When the class compared cinematic treatments of the play, Dante passionately led the defense of the Manhattan-in-2000 setting of the adaptation of the tragedy starring Ethan Hawke. By the end of the year, Dante was previewing the list of the various Freshman Composition sections offered at the college he would attend in the fall, appetized by both "Early Modern Bogeymen" and "Conspiracy Fiction." Dante did not intend to declare an English major, certainly. But he was almost glad he wasn't finished with the field quite yet.

Sylvia

Before coming to St. Francis, Sylvia's approach to writing had been simply to take down her thoughts much as she would speak them, and she arrived in her first Freshman English class with little experience of formal writing or the writing process. But from the start, Sylvia got regular practice in crafting paragraphs with evocative topic sentences and strong arguments. During guided classroom workshops, she also enlarged her vocabulary and started writing more complex and varied sentences. During the year, she was exposed to literature from all of the major genres, and because assignments related to poetry and *Macbeth* were completed in class, only the novel and short-story units presented her with the familiar difficulty of finding the motivation to read at home.

As her Sophomore year began, Sylvia reverted to her tendency to rush through writing assignments by submitting a disorganized piece about the camp where she had spent most of her summer. But her paper demonstrated her affinity for Pine Woods, and after encouragement she did a second draft, applying many of the skills and techniques she had learned the year before. As the year went on, Sylvia responded empathetically to the conflicted English butler of *The Remains of the Day* and to the warring lovers in *Much Ado About Nothing*. She had a much easier time writing an expository or analytical paper, now that she was committed to a more conscious process of pre-drafting, drafting and redrafting.

In her Junior year, Sylvia continued to grow as a writer in workshops that strengthened her skill in sentence composition. Although she was sometimes frustrated by the amount of time it took to complete several rounds of improvements in her papers, she was happy to acknowledge that her writing was much better, and she also began to notice and correct more errors in her drafts before submitting them.

Nervous about the college-application process, Sylvia was relieved to learn the first quarter of Senior English would be spent reading personal essays and analyzing the techniques used by each author, en route to planning, writing, and revising her own college-application essay. With that objective out of the way, she continued expanding her vocabulary as she had her final high-school English reading experiences with Shakespearean drama, prose fiction, and poetry. She was able to review and apply all of the literary terminology she had learned throughout the previous three years and to create and revise one final analytical response to a significant work within each genre. Sylvia graduated feeling unfazed by the prospect of college writing.

Edgar

Edgar graduated from 8th grade certain that English would be his favorite subject in high school. He was a little surprised that sentence-composing workshops involved more conscious awareness of craft than he had experienced, and the first creative non-fiction writing assignment pushed him to be more disciplined in developing what he himself had already identified as a talent. But he was really pleased by the outcome of these more focused efforts. By the end of the year, Edgar had also mastered the expository essay and could confidently write an interesting introduction, present convincing argument and deftly quote from a primary source. Emerson's contemporary paraphrases of lines from *Macbeth* were clever, and his teacher and classmates looked forward to them every week.

Edgar started his Sophomore year with an evocative description of the Daft Punk concert he'd attended the week before. In the weeks that followed, he continued contributing actively to class discussions and incorporating new vocabulary into written responses. He spoke and wrote passionately about almost every poem examined during the final quarter.

When Edgar began his Junior year of English, he was a confident, inventive writer, and a reader gifted with the insights into psychology and aesthetics that make for strong literary interpretation. By the end of the year, he had composed several drafts of several kinds of pieces: creative non-fiction; the expository essay; rhetorical analysis; and, finally, in late spring, an essay that combined rhetorical approaches (including elements of personal narrative, process analysis, analogy, historical narrative, and comparison/contrast). He took advantage of the opportunity to take the AP English Language exam at the end of his junior year, and was pleased with a score that encouraged him to enroll in AP English Literature as a Senior.

His last year, Edgar took Creative Writing, too. Though in earlier years he'd not thought of himself as someone who might write poems, now he heard poem drafts by his classmates in that amazed him and inspired him to try it, too. At Morning Meeting, he began to read his own poems, and in late winter wrote a one-act play for Showcase. In AP English Literature, his analytical writing was vivid and searching. He discovered editorial abilities in himself, and as a peer editor was skillful; he loved craft workshops in both classes – whether discussing how to improve a thesis sentence in AP or a flash-fiction lead in Creative Writing. Edgar had learned to listen well in seminar-style discussions and to explain and support his inferences. Emerson recognized as a graduating Senior that literary art and criticism were not simply grist for the secondary-school mill, but topics with devoted practitioners and scholars in the world, and he thought he wanted to be a part of those conversations in college and beyond.

English Department Course Offerings

Required Courses

English I (1 credit)

In English I we use writing and reading as extensions of thinking. We focus on craft, the writing process, and the use of rhetoric as means of communication and expression. We read texts closely, producing and developing our own ideas and allowing ourselves to be influenced by what we read and question what we read. We learn from past and contemporary masters of English letters. We write academic papers. We write creatively. We use the imagination - stretch, unhinge, create. Please remember “there is no sight without fire.” (Ezra Pound, Canto 98).

English II (1 credit)

Sophomores study vocabulary in the context of the reading material. Usage and sentence structure will be addressed throughout the year. Students will write frequently in a variety of genres, including journal responses, poems, short fiction, memoir, and formal analytical essays, and will read in all genres, including lyric poetry, drama (a Shakespeare play), short stories, novels, and literary criticism.

English III (1 credit)

This course approaches American literature less as a natural evolution or a set of specific stylistic characteristics than as a varying series of responses to the historical, technological, intellectual, and political conditions of everyday life in the United States. In the course of our literary analyses, we will address how American literature grapples with notions of personal and collective identity, the social conditions of marginalized populations, and what being **American** has come to mean over the course of time into the contemporary moment. We will concentrate heavily on honing our writing skills with special attention to strong sentence composition and carefully crafted self-expression. Students will also be asked to reflect upon their roles as part of a larger community of academic inquiry where each personal voice is valued. Assigned readings will include novels, poems, short stories, a play, and a graphic narrative. Since visual culture plays an important role in our investigation of this period, we will also watch excerpts of films during the course of the semester. Class meetings will combine lecture and discussion formats. Passionate and thoughtful participation is required.

English IV (1 credit)

This course explores how literature and film communicate notions of personal and collective identity, the social conditions of marginalized populations, and construction of gender. We concentrate heavily on honing our writing skills with special attention to strong sentence composition and close, creative reading. Most immediately, we will address the most effective ways to craft an engaging personal statement for college admissions. Class meetings will combine lecture and discussion formats. Passionate and thoughtful participation is required.

AP English Literature and Composition (12;1 credit)

(Prerequisites: B+ in second semester of English III, recommendation of the English III teacher and permission of the teacher of this class)

This course will be most appropriate for students with brisk reading speed and good comprehension, some interest in poetry, and a willingness to work hard to improve their writing about literature. Emphasis will be on reading (mostly monumental) canonical works – poems, plays, novels, and essays – and on learning to describe their artistic achievements in a lively personal voice. Historical

and cultural contexts as well as contemporary literary theory will be introduced and discussed. Students enrolled in this class are expected to sit for the AP English Literature examination in May. *This course has a summer reading and writing requirement.*

English Electives

Basics of Film & Television (Fall ½ credit)

This course will teach students how to analyze film and television texts and the cultural and industrial frameworks in which they develop. Students will learn about the basic elements that distinguish film and television from other aesthetic forms, including editing, cinematography, sound, *mise-en-scene*, and visual narrative. Classical Hollywood, including its industrial conditions and aesthetic impact, will represent a significant part of our study. We will also examine some of the critical methods used to analyze films in more depth, drawing on interpretive frameworks such as genre theory, auteurism, and ideological analysis.

Writing and Reading Poetry (Fall and/or Spring; 1/2 or 1 credit)

In this course, students will engage in a wide variety of projects and games, all centered around 20th and 21st-century poetry (but also including, from the 9th century, a little of the Anglo-Saxon poetic form). Students will draft and revise their own poems, in free verse and forms, starting from many models, games, and prompts. In a writing workshop, students will contribute ideas for the revision of their peers' drafts. We will also work on performing poetry; the class will plan and host an evening poetry reading at the school in the spring. Because poets also read poetry, the course will ask students to devise their own reading lists, focusing on three or four contemporary published poets, who will become their textual mentors, and whose work they'll present to the class at intervals. Attending one poetry reading each semester will be required. Students interested in serving as an editorial board for the 2015-16 literary magazine will have that opportunity in April and May. The course may be taken for either fall or spring semester, or both.

New Voices Playwriting at St. Francis (1/4 credit)

Aimed at teaching the basics of playwriting, students will learn how to transform imagination into characters, dialogue, and action by writing monologues, dialogues, and short plays. Students will create and act through writing new works that speak authentically in their own voice. Student-written plays will be submitted to the Actors Theatre of Louisville New Voices Young Playwrights Contest, where winning plays are developed and fully produced in an evening of world premieres performed on stage at Actors Theatre by members of the Acting Apprentice Company. In addition, plays written in the class will be eligible for St. Francis School's spring drama production, the Showcase of Student-Written and Directed Plays. This class will meet once a week during the Projects period, beginning in August and running through early March, ending right around the Showcase. The class is open to students in all grade levels.

Fine Arts

Fine Arts Curriculum Overview

Fine Arts at St. Francis take the form of drawing/painting; photography; filmmaking; and music.

The drawing/painting course offers experience in the basics of achieving classical drawing skills in a range of media; experience in the collaborative creation of conceptual art; and an introduction to art history. At easels and tables in an airy environment lit by skylights, students find their innate creative abilities. The classroom is informally structured to encourage students to work individually yet find encouragement and inspiration from classmates around them. The photography and filmmaking classes combine creativity and technique, with students learning to shoot and then editing their work into a finished piece. The music class focuses on theory, history, and performance.

Current work from the drawing/painting course and the photography class is invariably on display in the hallways. Film pieces are shown to the school at Morning Meeting, and music students perform for the whole school several times throughout the year as well as at designated events.

Teachers in fine arts classes are designated as **artists-in-residence**. The goal of the artist-in-residence is to help students find that unique individual voice that presents itself in any given media and encourage its growth. All the artists-in-residence have active professional careers distinguished by years of dedication to their crafts and by reputations that extend beyond the city limits. Their career focus provides a window into the highly competitive world of art and music as professions.

Art and music students are asked to keep open minds and work thoughtfully. Their shared experiences with art- and music-making are discussed in critiques that emphasize each person's growth and unique vision. Perceptions are challenged in discussions that lead to a greater appreciation of the unlimited range of expressiveness.

Fine Arts Department Student Profiles

Frieda

A Sophomore student who does well in science and sports, Frieda finds herself anxious about taking a fine arts class. She has had little prior classroom experience, and her resistance is strong. But Music Performance encourages her to access the right side of her brain, and she finds that a door to an unknown creative self is unlocked. Frieda becomes engaged in finding different ways to express her creativity through sound. Though she may not pursue fine arts again academically, she will have a richer understanding of and appreciation for music. Best of all, she will have made a connection with her own creativity.

Vincent

Vincent is a student who performs very well academically, in all subjects. He has had some art classes in grade school. He likes art but does not consider himself an artist. Exposed to many art exercises in a variety of media, from pencil to printmaking, he finds he does not excel in all the media, but that he has a natural facility for printmaking. He becomes aware of his eye for composition and design after completing varied class projects. Though he doesn't think the traditional art media interest him enough to pursue Advanced Art, he is intrigued by the idea of pursuing photography. He knows the concepts he has learned in art class are the building blocks for other forms of visual expression like photography and video. He will pursue one of these classes in his Junior year.

Louise

Louise has a sophisticated knowledge of art and music. She has always known she was talented, and in grade school and middle school took every art and music class she was able to. She knows that the arts - and specifically drawing/painting - will be, in some way, part of her career path. Louise has already made plans to take summer courses at one of the many pre-college art programs available regionally and in larger metropolitan areas. Her goal in art class is not only to widen her understanding of art modalities and better her drawing and painting skills, but also to build a portfolio for the summer program and later for college. Louise is particularly interested in the stories and insights a practicing professional like the artist-in-residence brings to the classroom. She has never really known a working artist and is intent on learning what is necessary to succeed in this highly competitive field.

Louise will take Advanced Art, and because she is self-disciplined, she can stay on the schedule she proposed for her art project. She has delineated in her proposal not only dates of completion but also her aesthetic goals, the media, and concepts involved in her project. Louise is happy to do the necessary research on her own, and will put in extra hours at home to accomplish her goals. She and the artist-in-residence will have discussions and informal critiques to nurture the success of the project. At the end of the second semester, Louise will have produced excellent work worthy of a competitive portfolio.

Fine Arts Department Course Offerings

Art I – Foundation Studio Art (1 credit)

This class is designed to reveal and nurture the artist within. It is a quest for self-discovery that everyone can experience when communicating with the mysteries of the creative self. That includes every student, even those who protest that they cannot “draw a straight line”. Classroom assignments are designed to awaken that innate artist in every student.

Students will learn the basics of art making with an emphasis on unlocking the right brain’s artistic genius through various exercises. We will investigate an array of art materials as pathways to personal expression. We will explore traditional materials such as charcoal, pastel, gouache paint and the non-traditional including needlecraft and the computer. Basic formal elements such as value, composition and some color theory will also be presented. Aspects of art history, as well as an overview of contemporary art, will be discussed in relation to class assignments. Field trips will augment student’s understanding of contemporary and traditional art forms.

Although talent is nonessential in this class, a good work ethic is crucial. Good grades can be earned by working hard, focusing on the task at hand and having openness to trying new things. Since this class is non-structured in the traditional sense of the word, students must use more self-discipline than is typically required in a traditional classroom. Students who do not use class time appropriately will have lower grades. Distracting behaviors of any kind indicates a disinterest in the class and will be reflected in the student’s grade.

Each student will be represented in the annual Student Art Show that takes place the second week in May. The self-portrait project will be the main focus of the second semester. Completion of this project is the summation of the year’s study. A finished self-portrait is mandatory for a passing grade. Attendance at the Student Art Show is a requirement of this class.

Advanced Portfolio Art (1 credit)

Advanced Art is for students who have already taken Art I. This class builds on the basic concepts assimilated in the previous class. Students work independently on projects that have been

agreed upon by the instructor and the student. The student is challenged to create a portfolio of works relating to a certain medium, theme or concept. Progress will be evaluated on an ongoing basis through critiques and discussions. It is expected that the student will do research on her/his particular area of interest outside of class to enhance the success of the work. Self-motivation and a strong work ethic are basic requirements of this class. The advanced student is expected to be highly organized and self-directed. This is not a class for the student who is unable to create a self-study program that consists of sequential steps to meet specific goals with realistic dates.

Introduction to Film/Video (*Fall and/or Spring: ½ or 1 credit*)

This class emphasizes the art, tools, and commerce of film and video production. We begin with the written word. Each student brings a concept that is to be shaped into a workable film treatment and, finally, a shooting script. Once the script is honed and evaluated and with the participation of the class members, the production breakdown begins. By the end of the school year, students will have created a finished screenplay, a filmed scene from the original screenplay, and a completed short film. The final films are viewed by the student body in a special screening at St. Francis. In addition, the class makes an on-going documentary, with editing duties performed by each member of the class. Guest lecturers, professionals both local and national working within the television and film industries, help give our students perspective and practical career advice. Film criticism and film reviews are also read, discussed, and (often) debated.

Intro to Creative Photography (*Fall and/or Spring; ½ or 1 credit*)

Photography is the art, science and practice of creating images by recording light. Through lectures, assignments, gallery visits and personal investigation, students will develop a basic understanding of their digital camera and current electronic imaging technology. While establishing technical skills, students will explore the possibilities of this medium for visual communication and personal expression. Throughout the year, students will be exposed to a variety of photographic artists and styles. We will cross-reference art movements as well as other artistic mediums. The course is rooted in traditional photography with a modern day approach to the processing of their work. A digital camera (basic point-and-shoot, DSLR, or smartphone) is required.

Jazz Ensemble and History

Jazz Ensemble and History is open to interested vocal and instrumental students and will be held yearlong during the Projects period. The course will be centered on jazz history and appreciation, as well as learning and performing jazz repertoire. The jazz history/appreciation portion will be focused on jazz standards, famous albums, and artists. Students will learn style as well as try to transcribe recorded solos. The performance portion will be focused on jazz combo repertoire and ensemble performance. **Please note, participation in outside concerts/performances and occasional rehearsals are required for credit in this course.** These performances include, but are not limited to, the University of Louisville Jazz Festival, KMEA State Jazz Assessment, area colleges' jazz clinics, SFS winter and spring performances, and school open houses. In addition, all students will be highly encouraged to audition for the KMEA All-State Jazz ensembles in December. A strong knowledge of scales and chord structures will be helpful for all students, but is not a requirement for entering the ensemble.

Advanced Music Performance (*1 credit*)

This course will continue to build on the fundamentals of musicianship and creativity through performance. Unit topics and repertoire will include a wide variety of styles and musical eras ranging from, but not limited to, Baroque, Folk, Mountain, Jazz, Rock, Pop, and Hip Hop. Other styles and

genres will be explored as well, but this will be based on the abilities and desire of the ensemble. Students in Advanced Music Performance are expected to perform at school functions such as Open Houses, where music is a desired element. Additionally, these students will have the opportunity to not only perform for their peers, but also perform a program for Goshen students. One evening concert will be scheduled per semester, and those dates will be provided at the start of the academic year. Also, High School music students will be asked to participate in one musical outreach event during the academic year. In addition to the above performances, students will also learn basic music theory, and will write and arrange music for the ensemble. Grades will be awarded based on attitude, participation, musical growth, and attendance at performances. Requirements include arranging a piece of music to be performed in concert; performing at three basketball games as part of the SFS Pep Band; and auditioning for All State/All-District Band, Orchestra, Choir, or Jazz Band. Students in this course will be fully graded.

History and Social Sciences

History Department Curriculum Overview

The History Department's goal is to encourage thoughtful reflection and independent thinking about historical events through the study of geography, social conditions and categorical contexts. Our focus is global, and as a result we emphasize connections more than isolated facts. In addition, a continuous effort is made to meaningfully connect the past to the present and the present to the past: thawing frozen history and making sense of the contemporary world. Group work, visiting speakers, field trips in the city, and creative presentations of historical information help involve the students in an interactive and engaging way. Interdisciplinary activities also enrich historical understanding.

In accordance with the above goal, and unlike any other school in the region, St. Francis requires students to take four years of history. During the first two years of the curriculum, students are introduced to civilizations, cultures, and socio-religious traditions in the ancient and medieval worlds, respectively. In addition to providing a cultural and geographical base, the Culture and Civilization courses in the Freshman and Sophomore years stress basic research techniques, primary-source textual analysis, and effective written expression. Most classes are conducted in the discussion format, emphasizing respectful interaction.

In the Junior year, students take US History or one of the Advanced Placement History offerings.

Seniors take an Advanced Placement History course and/or 20th Century Seminars and electives. This culminating year prepares students for college academic work by covering a demanding curriculum that stresses independent reading and research as well as lively and informed classroom discussions.

History Department Student Profiles

Annie

Annie was a top student at her middle school with a keen interest in social studies and current events. When shadowing at St. Francis, she was impressed by the ninth-grade history classes, in which students were reading primary texts – on the day she visited, the text had been Sophocles' *Antigone*, and the classroom debate a spirited one about the tension between obligations to self and community – and studying different world socio-religious traditions. The class was a conversation – between teacher and student, student and student. As a new Freshman, Annie took to the discussion format of the classes, the sophisticated reading, the map exercises, and the emphasis on research and writing.

In her 10th grade year, her term paper on Sufism was among the best in the class, and the teacher recommended her for the AP United States History class in her Junior year. The AP US History class was intimidating at first: the goal of the course being to prepare the students for the nationally administered exam in May, expectations were high, the reading and writing load heavy, and the pace fast. Annie adapted and soon thrived in this challenging environment. She gained even more confidence in her abilities and realized that not only would she be able to succeed in college, but she would be able to succeed at even the most academically demanding of undergraduate programs. This feeling was validated when she received a 5 on her AP US History exam.

In her Senior year, Annie took AP European History and enrolled, both semesters, in one of the history department's Senior Seminars on 20th century topics. Annie completed her

required Senior Project by compiling an oral history of her grandmother's experience in the women's rights movement of the 1960s and 1970s. She was accepted to several of her top college choices, felt well prepared for the next level, and looked forward to continuing her studies in the liberal arts field.

Barbara

When Barbara began her career at St. Francis, she was disappointed to find out that she was required to take four years of history. Barbara liked math and science, but she was not especially looking forward to humanities courses. During her Freshman year in Culture and Civilization (Ancient), Barbara was daunted: there was no textbook to be quickly scanned, no chapter followed by reading questions. Instead, she was asked to analyze primary-source material and interpret narratives from ancient traditions. When Barbara wanted quantified answers, she was often asked to analyze the gray areas, the complexities of culture, instead. At first Barbara was frustrated and had to work especially hard to keep up with the reading schedule. But she noticed how her analytical and interpretive skills (the same skills she used in her math and science courses) were improving and that she was asking more complicated questions.

Barbara faced the same challenges in her Sophomore year in Culture and Civilization (Medieval), but she was better able to formulate her ideas and questions, as especially displayed in written assessments: research papers and essay tests. She got excited about her second-semester paper (she read and wrote about the Byzantine contributions to the European Renaissance of Greek mathematics and science) and was happy to have done well on it.

In US History in her Junior year and then in The Civil Rights Movement, a Senior Seminar, she was learning new historical facts, but more importantly, she felt confident in her abilities to analyze historical materials and scrutinize sources. Granted, these courses did take up more time outside of class than she had hoped, but she felt more than prepared to embark on her college career. Barbara especially appreciated how her teachers challenged her assumptions, taught her to think historically, and exposed her to different types of texts and scholarly approaches. She knew this wider worldview and cultural understanding was invaluable.

Leon

When Leon started at St. Francis, the amount of reading and writing was overwhelming to him. History, in particular, did not come easy to him because in earlier grades, memorization rather than historical analysis had been the focus of instruction. He was not a particularly driven student and often complained that he would have to endure four years of intense reading and writing in history. In Culture and Civilization (Ancient), Leon resisted the expectations in the class and often challenged its emphasis, complaining that the reading material and the task of making inferences from a primary source were too hard, that the teacher was not teaching anything he would ever use. But though he often resisted the reading, it was clear that Leon enjoyed discussion and debate. After class, he would sometimes stay to talk, and he began to express a few opinions he did not feel comfortable expressing in class discussion.

When Leon reached Culture and Civilization (Medieval) in 10th grade, he was still struggling with the readings, but now understood what was expected of him. He started to formulate ideas and questions relevant to the topic. His reading was sporadic, but he had developed enough skills to write a research paper. His essay exams were improving, primarily because the format no longer intimidated him.

By the time Leon took US History and a Senior Seminar, he had learned how to make an annotated bibliography and understood the meaning of historical analysis. In the Senior Seminar, he found a new way to appreciate his own skills and experience in the study of history. He enjoyed talking about current events, and his seminar, Roots of Terrorism, gave him an opportunity to do this. It was not until this last high-school history class that Leon recognized the value of history in understanding the present day. He was now ready to embark on his college career.

History Department Course Offerings

Culture and Civilization (Ancient World) (1 credit)

This is the first part of a two-year World History sequence required for all 9th graders. In this course students begin with an overview of cultural anthropology. Using this as a basis for exploration, students survey world history from its beginnings in Africa and Asia to the advent of the Middle Ages in Europe. Main themes include the borrowings from and blending of cultures, the characteristics of empires, and the reasons for the declines of civilizations. Students will be introduced to several historical tools, including document analysis, religious texts, archeology, and literature. Geography – using many types of maps – is a course component throughout.

Culture and Civilization (Medieval World) (1 credit)

This course will apply critical thought to the concepts and historical records of cultures and civilizations in medieval global history. Different strands of Christianity, Islam, Vedic theism, Confucianism, and Buddhism, as well as identities associated with ethnicity and socio-economic groups, will be addressed in context. The object is to provide students with tools to act and communicate meaningfully in an interdependent world community.

United States History (1 credit)

This course will use a chronological narrative approach to examine our nation's past, in order to provide students with a necessary base as they assume the mantle of adult citizenship. The parameters of the instruction will be from the European contact up until the present day, and students will examine common themes (government, economics, religion, war, society, and culture) across time to gain an understanding of how the past impacts the present. Skill development will stress coherent written and oral expression, researching in a time of technological change, and clear reasoning and interpretation. Class requirements will include a significant amount of reading and formal writing assignments.

20th Century Senior Seminars

Senior Seminars provide students the chance to pursue focused study of selected topics in 19th- and 20th-century history and will include intensive reading, involved discussion and presentation of papers. Proficiency in world geography is a requirement of the courses. **Seniors not enrolled in an AP History course must take one Senior Seminar each semester.** *Each is offered for ½ credit.*

Visible Language: Writing and Literacy in the World Today (Fall; ½ credit)

While our brains are hard-wired for speech, writing is a technology that can only be learned with considerable time and effort. Yet it's difficult to imagine our world without writing, or even to go a day without experiencing it in some way. This is a recent development, for until a few centuries ago, most people in most societies could not read or write. How did writing become so pervasive, and, for that matter, what *is* writing? What relationship does writing have with speech, and what are the

cognitive processes involved with reading and writing? This course seeks to answer these and other questions through an examination of the major writing systems of the world. How did they develop, and what does their future hold in this digital age?

The Contemporary World (*Fall; ½ credit*)

This course will examine a number of contemporary global, national, and local issues from a causes, practices, and effects perspective. The topics chosen will for the most part be determined by events as they occur, although one topic already on the docket will be the 2016 presidential election. There will also be an emphasis on geographic context when applicable. Students will be expected to make several presentations to the class, and a final project on one of the topics will be required. The only “book” requirement for this class is a Sunday *NY Times* subscription.

Gender Studies (*Fall and/or Spring; ½ credit each*)

Gender Studies is designed for the curious student, with a desire to ask questions and think critically about answers. Students will explore the powerful role gender plays in shaping how we see and experience the world, and learn to connect their individual experiences as men and women to broader social and historical forces. Our first semester will be spent documenting the history of gender in America; in the spring, we will focus our attention on contemporary topics in Gender Studies. Course materials include fiction and non-fiction readings, films, and a variety of primary sources.

New Orleans (*Fall; ½ credit*)

This course focuses on the past and present of New Orleans, Louisiana. The race, class, gender, and political concerns of the Crescent City will be examined, with an eye toward historical precedents and trends. Particular attention will be given to Hurricane Katrina and its aftermath in the present day, as we reach the 10th anniversary of that storm. Students will be exposed not only to the history of New Orleans, but also to the broader New Orleanian culture including art, food, music, religion, leisure, and, of course, Mardi Gras.

History and Social Sciences Department Electives

AP United States History (*1 credit*)

Prerequisite: AP European History; permission of the History Department

Enrollment in this class is contingent upon successful completion of a summer reading assignment, Gordon Wood's “The Radicalism of the American Revolution”.

AP U.S. History covers the spectrum of American history from pre-Columbian days to the present. Using chronological and thematic approaches to the material, this course exposes students to extensive primary and secondary sources and to the historiographical interpretations of various scholars. Thoughtful class participation and written assignments will be crucial to success in this course.

AP European History (*1 credit*)

Prerequisite: permission of the History Department

Enrollment in this class is contingent upon successful completion of a summer reading assignment.

This year-long course is designed to be a rigorous survey class of modern European history from the Renaissance to the post-World-War-II period. Political, social, and cultural dimensions of the complex that is European history will be analyzed, with particular emphasis on the French Revolution, the rise of the bourgeoisie, the Industrial Revolution, war and revolution, and the response of artists and intellectuals to events and trends. This course demands sophisticated reading and writing skills and the

willingness to engage difficult material energetically. Preparation for both discussion and written presentations will demand time and efforts. Students are expected to take the AP European History exam in May.

Mathematics

Math Curriculum Overview

The math department at St. Francis strives to provide students with not only the mathematical skills they will need to take their place in a technologically advanced society, but also with the fundamental skills, procedures, and good judgment to continue their mathematics education at the most competitive universities and throughout their careers. To this end we emphasize the necessity of communicating answers in mathematically correct notation, and in complete sentences. We expect our students to take advantage of the opportunity for personal interactions with their instructors, in accordance with the larger goal of having our students grow into mindful, informed young adults. Students are encouraged to be part of the process, driving discussions and curriculum decisions, and being full partners in their own education.

We offer a full range of coursework in high-school mathematics, beginning with Algebra I, Geometry, and Algebra II, with a range of options after Algebra II. In the courses through Algebra II, we use texts that emphasize good fundamental procedures and basic skills. We have found that “contemporary” texts are distracting and confusing to students who should, at this stage in their careers, be focusing on the basics. After Algebra II, students can opt for MMT, Precalculus, AP Calculus AB/BC, Multivariable/Vector Calculus or AP Statistics. We can also offer independent studies in Post-Calculus mathematics for those students with the necessary background and interest. Texts for these courses are college-level, and emphasize correct and consistent use of mathematical vocabulary and notation. Math classes are small, ranging in size from 5 to 17. Instruction includes extensive use of technology, as required by the current standards in the AP and other college-preparatory curricula.

Beyond the ordinary curricula, we offer students the chance to participate in the Greater Louisville Math League, a challenging competition held four times per year, with both individual and team scores reported. Selected students are also invited to participate in the American Math Competition, the first level of a talent-search process. Those students scoring above 100 will be eligible to compete in the American Invitational Math Exam, and the top few hundred students in the nation on that exam will be invited to a summer camp to choose the US Math Olympiad Team, for international competition.

Math Department Student Profiles

Blaise

Blaise did not begin his high-school career at St. Francis. A highly capable student, he was not performing at a particularly high level in math, a disappointment to those who knew him well and to himself. At St. Francis, small classes and the opportunity to interact with get to know his instructors were new elements. He was both surprised pleased to find that he had considerable input into his own education. Far from struggling, Blaise found that he was, in fact, quite talented in mathematics and began to participate in extra-curricular academic activities, like the Greater Louisville Math League.

As a junior, Blaise’s goals changed: he wanted more than merely “making it through”; now he wanted to take the most challenging curriculum available, including the AP courses.

Sophie

Sophie entered St. Francis as a freshman, with poor preparation in mathematics and a view that she could not succeed in this field in high school. In addition, academic achievement

was not at this time in her life her number-one priority. She enrolled at St. Francis for reasons other than the opportunities presented in the mathematics department. Indeed, she saw the core math courses (Algebra I, Geometry, and Algebra II) as simply hoops to trudge through before graduating.

In each of these courses, Sophie had small class-sizes and easy access to the instructors, and those facts alleviated her fears and concerns about math in general. But on the other hand as a ninth- and tenth-grader, she was enrolled in math classes with students of varying mathematical abilities and inclinations, whose fondness for math and aptitude in it seemed to her much greater than hers. Because these courses were not “tracked,” Sophie had to grapple with the same material as did everyone else in her class. While others found success, often without apparent effort, she struggled to maintain a passing grade, and at times felt overwhelmed by the material.

Sophie’s experiences were not unique: St. Francis teachers recognize that individuals learn at different paces and levels and build their curriculum with this diversity in mind. Homework and tests are designed to offer challenges for everyone, and perfect mastery of all topics is not expected. Instead, the goal is that each student realize that she can move beyond the stage of frustration and fear – when she believes “I can’t do this!” – and figure out something new from a previously opaque problem.

Some of means to make this move are institutionalized, and Sophie had her fair share of supervised-study periods. But one of the missions of St. Francis math teachers is to lead students to recognize their own roles in their education and their success or failure. Sophie’s math teachers also provided opportunities for improved learning, from test corrections to consultation times outside class, to negotiations for extensions or accommodations. Sophie passed Algebra I and Geometry.

But in her Junior year, she did not pass Algebra II. Facing her Senior year and the reality of repeating her math course, Sophie became the pro-active student the math department encourages and challenges students to become. She did not suddenly become the best mathematician in the school. But she changed her practices to sync more appropriately and helpfully with her needs. She spent extra time on homework, met with teachers on her own and comfortably passed the math requirement for graduation.

Marta

Marta came into St. Francis with high academic expectations and personal standards of achievement to match. Marta was convinced that she could get what she needed at St. Francis in order to pursue her interests in a career in chemistry, engineering, or mathematics. The early math curriculum was little challenge, but as a Junior and a Senior, Marta began the more challenging portion of her high-school years, taking a wide variety of Advanced Placement courses. While remaining an excellent student across the board, she began to focus intently on courses relevant to her future career in a technical/scientific area.

She was pleased to find experienced and knowledgeable instructors in her science and math courses, and participated enthusiastically in academic competitions as well as in her coursework. She experienced, as all “A” students do, a difficult but important stage in her academic career: the moment when she realized that it would not always be easy, and that she would not always be able to get “the right answer” in a few moments. But Marta was only momentarily daunted by intractable problems, and made the important leap to a realistic set of expectations when engaging in challenging activities.

A student of the caliber of Marta needs more than merely the content of the courses: in particular, it is important to maintain and encourage the enthusiasm such a student brings to the

table at the outset. After four years at St. Francis, having successfully completed AP Chemistry, AP Biology, AP Physics, and AP Calculus BC, Marta left with her love of science and math not only undimmed but enhanced; she saw its relevance to other aspects of her life, and she herself left capable of seeing the big picture, as opposed to having collected a large number of facts. She left high school confident and ready for the top technical universities in the nation, one of which she now attends.

Math Department Course Offerings

Algebra I (1 credit)

This is an introductory course in algebra covering the basics of using variables and grouping symbols, exponents, and real numbers, including irrational numbers. Topics will include simplifying variable expressions given values for the variables, solving linear equations in one variable, polynomial operations, factoring polynomials, working with algebraic functions, graphing linear equations and inequalities, and an introduction to quadratic functions. There will be considerable emphasis on word problems and on the correct and consistent use of appropriate mathematical notation and vocabulary. A TI-83 or better calculator is suggested but not required.

Algebra II (1 credit)

Prerequisites: Algebra I and Geometry, or concurrent enrollment in Geometry

This is the sequel to Algebra I, and although it is usually taken after geometry, concurrent enrollment in Geometry will provide the necessary background. Topics covered will include linear equations and systems, quadratic equations and systems, quadratic, polynomial, rational, exponential, logarithmic and logistic functions, matrix algebra, conic sections, and an introduction to trigonometry. Students are required to purchase a TI-83 calculator or better.

Geometry (1 credit)

Prerequisite: Algebra I

As well as being the study of the mathematics of points, lines, planes, and other geometric objects, geometry is concerned with the process of careful, organized, abstract thinking. Students will learn the importance of careful definitions and learn to make conjectures and justify arguments through different types of formal and informal proofs. Additional topics will include congruence and similarity, solid geometry, coordinate geometry, transformations, and graph theory.

Precalculus (1 credit)

Prerequisites: Algebra II with a minimum grade of B-, or permission of the instructor.

This is a course for students who plan to take calculus or have the necessary level of interest. Topics will include a detailed study of functions, including polynomial, exponential, logarithmic, logistic, rational, and trigonometric functions. Other topics include conic sections, polar- and parametrically-defined functions, vectors, complex numbers, matrix algebra, sequences and series, basic combinatorics, and probability. A TI-83 or better calculator is required. The correct use of and the limitations of scientific calculators will be emphasized.

Mathematical Modeling (with Trigonometry) (1 credit)

Prerequisites: Algebra II

Students in this course will use a variety of algebraic, geometric and analytic skills to model real world phenomena and answer questions about those models. Students will study the mathematics of growth and decay, not only in the context of biological and chemical systems, but also as it pertains

to finance. Students will use trigonometry to solve problems in engineering and other geometric applications. They will also use trigonometry to model periodic (or semi-periodic) phenomena, such as tides, sales, etc. Students will also do statistical and probabilistic analysis in a variety of contexts. Other topics may include--but are not limited to--voting theory, graph theory, physics applications, the mathematics of art and simple proof-writing.

AP Calculus AB/BC (1 credit)

Prerequisites: Precalculus and recommendation of instructor.

This is a one-year course covering all the items in the AP Calculus AB syllabus, and additionally the extra topics included in the BC syllabus. Upon successful completion of the course, students will be qualified to take the AP Calculus AB or BC examination. Topics will include limits and continuity, the derivative and its applications, the integral and its applications, and the fundamental theorem of calculus. BC-only topics include the calculus of polar and parametrically defined functions, vector functions, improper integral forms, L'Hospital's rule, first order separable differential equations, slope fields, and a detailed study of infinite series, including convergence tests and the MacLaurin and Taylor series. A TI-83 or better calculator is required for both the course and the AP exam.

AP Statistics (1 credit)

Prerequisites: Algebra II and permission of the instructor.

This AP course in Statistics will introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: (1) Exploring data: describing patterns and departures from patterns; (2) Sampling and Experimentation: planning and conducting a study; (3) Anticipating Patterns: Exploring random phenomena using probability and simulation; (4) Statistical Inference: estimating population parameters and testing hypotheses. Students who successfully complete the course and exam may receive credit, advanced placement, or both, equivalent to a one-semester introductory college statistics course. A TI-83 or better calculator is required for both the course and the AP exam.

Multivariable and Vector Calculus (1 credit)

Prerequisites: AP Calculus BC

This is a course for students who have successfully completed AP Calculus BC in their junior year or earlier. We will first revisit several topics that, due to the specifics of the BC curriculum requirements, were touched on superficially. These topics will include conic sections, hyperbolic functions, trigonometric substitution and other integration techniques, the binomial series, and a more thorough look at vector analysis. We will then study the theory and applications of partial derivatives and multiple integrals, and second order differential equations, including series solutions. Vector Calculus topics will include curl and divergence, line and surface integrals, Green's Theorem and Stokes' Theorem.

Science

Science Curriculum Overview

When you walk into a St. Francis science classroom, you'll find students engaged in applying science principles to everyday life. Whether it's designing a safe but universally thrilling roller-coaster in physics, synthesizing the "bounciest" bouncy ball in chemistry, or sampling local waterways in biology, students appreciate science as a process, rather than an accumulation of facts.

St. Francis embraces the Physics First curriculum philosophy, which elevates biology to a capstone course. The required core curriculum sequence is conceptual physics for freshmen, chemistry for sophomores, and biology for juniors. Rather than merely flipping the traditional order, this sequence of courses allows students to progressively build on their scientific knowledge and curiosity.

Students then have the opportunity to take semester electives and/or Advanced Placement courses in physics, biology, environmental science, and chemistry. Students can also participate in Science Olympiad, which is a national science competition where students can compete in physics, engineering, biology, and general science.

A St. Francis alum will have the tools to critically analyze the often- oversimplified presentation of scientific data in news, advertisements, and pop culture. Through collaborative investigations and student-centered classroom discussions, students learn how to develop good questions, how to research and analyze the world around them, and how to effectively communicate their findings to the greater community.

Science Department Student Profiles

Jerome

Jerome began his experience at St. Francis with a weak background in mathematics and had some difficulty with Physics First. However, because of the inquiry-based structure of the class, Jerome overcame these issues. He got curious about how forces and energy shape our world, and his curiosity served him well as he progressed on to Chemistry. Jerome did well in the laboratory portion of Chemistry but continued struggling with the application of mathematics to chemical concepts. Still, Jerome did gain a firm grasp of the foundation of Chemistry: matter, reactions, and energy. He was challenged by molecular and cellular biology; however, he excelled in macroscopic investigations such as ecology and physiology. While Jerome took the only core science classes, he nevertheless honed his observation and critical thinking skills and left St. Francis after graduation as an informed and appropriately skeptical consumer of scientific information.

Olive

Olive came to St. Francis with a strong background and interest in science and mathematics. She excelled in Physics and was excited about moving to Chemistry the following year. In Chemistry, Olive easily grasped the concepts of the course. Asked to design an experiment, she stood out: in the unit on acid-based chemistry, Zoe designed a successful controlled experiment comparing the neutralizing capacity of five brands of commercial antacids. In addition, her analysis of the results went beyond a determination of which brand was best and included parallel analysis of the brands' respective active ingredients. Olive's strong interest in science and excellent performance in Physics First and Chemistry led her to enroll in AP Biology during Junior year. AP Biology placed a greater responsibility her. The material in the course was vast and the topics ever-changing, but its emphasis on building a

conceptual understanding of science as a process rather than an accumulation of facts allowed Olive to explore the unifying themes present within Biology and their connection to principles in physics and chemistry. Olive left St. Francis with a love of science and an immense curiosity about how the world works.

Derek

Derek transferred to St. Francis at the beginning of Sophomore year having already taken a Biology course at his previous school. He took Physics First, and although he was worried about taking a Physics course, his fears were allayed when the discussions of forces and energies included examples in nature and connections to Biology. In his Junior year in Chemistry he learned how molecules interact with one another and how that interaction explains the properties of DNA. Derek finished Chemistry with an increased interest in Biology and returned his Senior year excited about the subject. He chose to return to Biology, taking the AP course, in which he saw for herself the interconnectedness of the disciplines and grew to love the process of science and scientific exploration. Derek left St. Francis having seamlessly moved from a more traditional course sequence into the Physics First curriculum.

Science Department Course Offerings

Introductory Courses

Physics (1 credit)

What keeps airplanes in the air? How does a compass know how to point north? Would it be possible to play baseball on the moon? In this course, students address these and more questions, and, in the process, investigate the deepest principles that govern life and the universe. Physics is about discovering the fundamental laws of Nature and students in this course study not only those laws, but also the process of discovery that has brought about the modern age of science. Students in Introductory Physics conceptually explores topics including motion, forces, energy, waves, light, electricity, magnetism, and atomic physics through a combination of lecture, discussion, labs, and hands-on activities.

Chemistry (1 credit)

Chemistry is the study of matter, its structure, and transformations. In this inquiry-based course, students design and conduct experiments to answer questions about the chemical nature of their surroundings. Presented with a series of authentic problems, students work in teams to devise methods to find solutions, proceed to the lab where they collect and analyze data and communicate the results of their investigations in written lab reports. Over the course of the year, these experiments, along with supplemental readings from the text, help students construct an understanding of the nature of the forces that hold matter together and the energy changes associated with establishing or disrupting those forces. A broad range of experiments serves to familiarize students with standard laboratory procedures and methods for analyzing data, as well as providing them with an appreciation for the inherent uncertainty in measurements. Major topics include atomic structure and periodicity, chemical nomenclature and formulae, chemical reactions and equations, stoichiometry, chemical bonding, the structure and properties of matter, the role of energy in chemical and physical change, and the study of gases and solutions.

Biology (1 credit)

The introductory biology course at St. Francis covers all levels of the study of life from molecular and cell biology through genetics, life processes, anatomy, physiology, evolution and

ecology. The course focuses on the evolutionary relationship in structure and function and stresses ecological principles at all levels of study. Students learn through a series of laboratory-based investigations, theory, independent research and discussion. They learn the value of an organized approach to problem solving and develop their scientific writing skills. Frequent hands-on classroom activities enhance the development of student's scientific mind and deepen understanding of the living things around us.

Advanced Placement Science Courses

AP Biology and AP Environmental Science are offered in alternate years. AP Environmental Science is being offered in 2015-16.

AP Chemistry (1 credit)

Prerequisites: Physics; grade of A- or higher in Chemistry

Advanced Placement Chemistry is the equivalent of a full-year major's undergraduate chemistry course and is designed to follow the successful completion of introductory Chemistry. Topics include the structure of matter, kinetic theory of gases, chemical equilibria, chemical kinetics, and the basic concepts of thermodynamics. Strong emphasis is placed on chemical calculations and the mathematical formulations of principles. The course should contribute to the development of the students' abilities to think clearly and to express their ideas, orally and in writing, with clarity and logic. This rigorous course is intended for students who have demonstrated a willingness to commit considerable time to studying and completing assignments outside of the classroom. *Students who complete this course are well prepared to take the AP Exam in May. This course has a required summer assignment.*

AP Physics C: Mechanics (1 credit) *Prerequisites: Physics; Chemistry; Precalculus or AP Calculus concurrently with this course; permission of the department required.*

This course offers a solid foundation in electricity and magnetism, in preparation for the AP examination on the subject in May. Topics include static electricity; resistors, capacitors, dielectrics, and inductors; electric circuits (including RLC circuits); magnetic fields; and electromagnetism, including Maxwell's equations. Lab work and lab reports form an integral component of the course. There is a great deal of math and is calculus-based. Students need not have already taken calculus to enroll, (and in many cases will be taking calculus concurrently with AP Physics); however, they must show strong aptitude for math and will need to spend extra time with the instructor outside class to get the tools they need as soon as possible. *Students who have not already taken AP calculus will need to complete a short math "primer" over the summer, it will cover the basics of taking a derivative and performing an integral. Even students who will be taking Calculus along with Mechanics will need to do this reading.*

AP Environmental Science (1 credit)

Prerequisites: Biology, Physics, or Chemistry; permission of the department required.

The environment affects all things on earth, and all things on earth affect the environment. Through this give and take, the natural world and all its inhabitants are intimately interconnected and interdependent. AP Environmental Science will help you to understand this dynamic relationship and to predict the consequences of changes in the environment. By exploring the environment that surrounds us, each student will gain insight in many subjects, including earth science, chemistry, sociology, and biology, in this multi-disciplinary course. *There is a summer reading requirement for this class.*

Science Department Electives

Vertebrate Zoology (*Fall; ½ credit*)

In this course, students investigate and examine the characteristics of vertebrate organisms. Topics covered include heredity, evolution, natural selection, and taxonomy. As students progress through the course, they research and discuss topics including animal behavior, environmental adaptation, domestication, and the human impact on animal life — including habitat destruction and species extinction. The course covers the vertebrate classes: Chondrichthyes, Osteichthyes, Amphibia, Reptilia, Aves and Mammalia. Students will learn life histories and identification techniques for members of these classes from the Louisville area.

Local Flora: Ferns, Flowers and Bark (*Spring; ½ credit*)

This course provides an overview of Kingdom Plantae and will investigate the classification, structure, and function of the various plant families found around Jefferson County. Students will learn characteristics and identification techniques of many of the native ferns, grasses, wildflowers, and trees as well as some of the common plants that have been introduced to this area. This class will include trips to different parks in Louisville for field identification. Grades will be based on projects, tests and homework assignments.

World Languages

World Languages Curriculum Overview

It is the mission of the World Languages Department at St. Francis to prepare students for college and life by giving them the tools to effectively communicate orally and in writing with people of diverse ethnic, religious and cultural backgrounds.

When you enter the language classroom, you'll hear students conversing in Chinese, French or Spanish with each other and the teacher. These conversations frequently continue into the hallways between classes, creating a positive global atmosphere in the school.

Beginning with introductory-level classes, students are encouraged to use their language skills. We want students to become comfortable with speaking and writing in a second (or even a third) language. The best way to develop these skills is to speak and write a language daily. Language classes are anything but boring. Teachers use a variety of participatory, hands-on activities to motivate students so they can focus on communication.

Students also have the opportunity to travel abroad with their language teachers. In recent years, students have traveled to Peru, Switzerland, France and China. These trips allow students to become totally immersed in the language and culture and to experience daily life in another country first-hand. We also invite students to participate in the regional and state World Language Festival each year. Our students frequently distinguish themselves in a variety of academic and artistic world-language events.

The World Languages Department offers beginning, intermediate and AP courses in Chinese, French and Spanish, allowing interested and capable students to pursue a more in-depth study of the literature and culture of their chosen language(s).

St. Francis students are required to complete two consecutive years of the same language in order to graduate. Our graduates who complete four years of language study with us often report themselves extremely well prepared for college-level language courses.

World Languages Department Student Profiles

Stephen

Stephen transferred to St. Francis midway through his freshman year. He had already taken several years of a foreign language before he transferred, but the language, was of not much personal interest to him, and even though he did well in his classes, he never acquired the ability to actually speak it. But as a sophomore, Stephen discovered Chinese, and it began to steer his life in a different direction from what he had originally envisioned. As a sophomore enrolled in first year Chinese, Stephen loved studying the language and he excelled in his studies. A school-sponsored trip to China during spring break that year furthered this interest. During the summer break he was accepted into a three-week intensive Chinese language course through Startalk, a federally funded program to introduce and encourage students to study strategic languages like Chinese.

Stephen studied the language on his own over the summer and was able to skip second-year Chinese. For his Senior Project, Stephen embarked on a translation of the 2300-year-old Taoist book *Dao De Jing (Tao Te Ching)*, with its 81 chapters and 5000 characters.

In his study of the Chinese language, Stephen gained an understanding of the fact that learning a language is not just absorption, but active participation, rote memory and constant repetition.

Junot

Junot, transferring to St. Francis in 10th grade, was clear: his first words upon entering his Spanish III class were “I hate Spanish. As soon as I fulfill my two-year requirement, I’ll never touch Spanish again.” Junot had good grades in other disciplines, but was convinced that he was, “bad at Spanish.”

Since World Languages classes at SFS are conducted almost exclusively in the target language, during the first week Junot had trouble understanding either his classmates or the teacher. He asked to be allowed to repeat Spanish II, although his ninth-grade year at another school has included a credit in that course. His Spanish teacher agreed to let him into Spanish II, to build his self confidence and comfort with the language.

Junot was more at ease in Spanish II, but continued to dislike Spanish – until he discovered that he was not only permitted, but encouraged, to express his personality and wit in class and in written assignments, as long as he expressed himself in Spanish. This invitation became a turning point for a student like Junot with an original sense of humor. Little by little, Junot started making humorous comments during class, surprising himself at first by his ability to make himself understood by others. His essays were successful and amusing. By the end of the year Spanish was among his favorite subjects. He stayed with the language through high school, and took AP Spanish Language as a Senior. He chose to write an original four-page short story in Spanish for his Senior Project.

World Language Course Offerings

Chinese I (1 credit)

In this class students begin acquisition of spoken Modern Standard Chinese (or Mandarin) using several methods: the Rassias Method, TPR and TPR-Storytelling Methods. Four days a week are devoted to language acquisition, reading and writing Chinese using the pinyin system both in class and for homework (all assignments will be posted on online), acquiring up to 300 characters, and completing language projects to demonstrate improving proficiency in speaking, reading and writing Chinese. In addition, one day a week will be devoted to multi-week projects which focus on aspects of Chinese culture, history, and society.

Chinese II (1 credit)

This course continues and advances the language skills learned in Chinese I. Students participate in daily reading activities, practicing practical conversation skills, and write in Chinese characters. Frequent drilling will improve spoken language skills. Four days a week are devoted to language acquisition, reading and writing Chinese using the pinyin system both in class and for homework (all assignments will be posted on online), complete language projects to demonstrate improving proficiency in speaking, reading and writing Chinese. In addition, one day a week will be devoted to multi-week projects which focus on aspects of Chinese culture, history, and society.

Chinese III (1 credit)

Prerequisite: Chinese II

This course continues and advances the language skills learned in Chinese I and II. The emphasis will be on conversation skills, reading simple novels in Chinese, and gradually replacing readings and writing using pinyin-supported texts with Chinese characters. Students will acquire a

deeper understanding and appreciation of the written Chinese character. Students will also work on projects and reports on Chinese cultural topics, enhanced with films and field trips. In third year Chinese, students will improve their knowledge of grammatical structures and their reading and writing skills in Chinese characters, gain skill in utilizing a Chinese dictionary (both online and text) and enlarge their knowledge of Chinese culture through projects, films and readings.

AP Chinese Language and Culture (1 credit)

Prerequisite: Chinese III

AP Chinese Language and Culture refines and further develops students' abilities in Chinese oral and formal written communication. It also provides an introduction to literary Chinese and ancient Chinese literature, and introduces students to Chinese culture through in-depth projects. It is a preparation course for the Chinese Language and Culture Advanced Placement exam. The class is conducted almost entirely in Chinese and students are required to hone their speaking skills through structured and informal activities. Language skills are improved through group and individual presentation and essays. Students will develop written skills and practice grammar through periodic compositions. Listening skills are developed during class discussions, viewing films and movies, and listening to recordings done by native Chinese speakers. Reading skills are improved through various readings of essays and articles, newspaper articles, advertisements, and poetry. *There is a summer reading assignment for this class.*

French I (1 credit)

This class is the foundational course in French. Students will begin to read, write, and understand spoken French. A variety of introductory topics, including family, school, self, city-life, and food are presented. This class follows a hybrid approach of both explicit grammar instruction and implicit communicative practices, which emphasize communication as a goal. Emphasis is on listening and speaking skills.

French II (1 credit)

This course builds upon the foundation of communication skills begun in French I with special emphasis on the past tenses. The topics covered include hobbies, outdoor activities and the weather, clothing, travel, and home-life. The students study Francophone life and customs, with cultural topics from the french-speaking world, not limited to France. Emphasis continues to be on using the content to communicate in French, with more concentration on reading and discussion than in French I.

French III (1 credit)

Prerequisite: French II

This class advances students' abilities to accurately and effectively communicate orally and in writing in French. More abstract topics – the environment, arts and the media, health and healthcare, and technology among others – allow students to express themselves creatively. Students learn to use the past, present, and future tenses in combination, refer to hypothetical situations, and give commands in order to better communicate. Students are also presented with a variety of authentic francophone materials including music, articles, films, television, and news broadcasts.

AP French Language and Culture (1 credit)

Prerequisite: French III, with a minimum grade of B; permission of department

This course is designed as a culmination of students' high school French studies. It is open to juniors and seniors who have completed French III and have received the permission of the teacher. It is assumed that students in this class bring with them a significant skill-set in speaking, reading, writing

and understanding spoken French. Students in this class must also bring with them the desire to work both cooperatively and independently in order to learn and review the structures and expressions necessary to communicate in French. The six themes central to the AP French Language and Culture examination -- world challenges, science and technology, personal and public identity, family and community, contemporary life, esthetics and beauty -- serve as the foundation of the course and will each be explored in depth. Students will also be asked to read, discuss and write about a variety of literary texts and current events in the French-speaking world. The AP French Language and Culture course allows students to identify their strengths and target areas needing improvement in the skills of reading, writing, listening, speaking and cultural knowledge. This course is conducted entirely in French. This course prepares students to take the AP French Language exam in May. *There is a summer reading requirement for this class.*

Spanish I (1 credit)

This class is the foundation course in Spanish. Students take their first steps in reading, writing, and understanding spoken Spanish. A variety of useful topics, including family, school, self, food and clothing, are presented. Emphasis is on listening and speaking skills. Students communicate in Spanish with each other and with the teacher, using role-playing, short oral presentations, conversation cards, and other small-group activities.

Spanish II (1 credit)

This course builds upon the foundation of communication skills begun in Spanish I with special emphasis on the past tenses. The topics covered include travel and vacation, celebrations and holidays, health and health care, and chores and pastimes. The students study Hispanic life and customs, with concentration on the history and geography of Spanish-speaking countries. Two culture-based readers written in Spanish about Spain and Mexico are used, along with articles about other Spanish-speaking countries. Emphasis continues to be on using the content to communicate in Spanish, with more concentration on reading and discussion than in Spanish I.

Spanish III (1 credit)

Prerequisite: Spanish II

This class advances students' abilities to accurately and effectively communicate orally and in writing in Spanish. More abstract topics – the environment, current events, the arts, jobs and banking, among others – allow students to express themselves creatively. Students learn to state their opinions, explain likes and dislikes, refer to hypothetical situations, and persuade others. They are introduced to classical Spanish texts: *La Celestina*, *Lazarillo de Tormes* and *Don Quijote* as well as articles from Spanish-language publications.

AP Spanish Language (1 credit)

Prerequisite: Spanish III, with a minimum grade of B and permission of department

This course continues to build on the skills learned in previous years of study, with particular emphasis on advanced conversation, reading, and formal writing based on the recommended syllabus for the AP Spanish Language examination. Students participate in daily conversation activities and oral presentations to help them focus on particular vocabulary and grammar topics, and write compositions every week. Students read and discuss fiction works by noted Hispanic authors. This course prepares students to take the AP Spanish Language exam in May. *This course has a summer reading requirement.*

AP Spanish Literature (1 credit)

Prerequisite: AP Spanish Language, with a minimum grade of B and permission of department

The curriculum of this in-depth course is determined by the syllabus of the AP Spanish Literature examination. It requires extensive reading of literary texts dating from the Middle Ages to the present. Students will write a variety of literary-analysis essays, do oral presentations and learn more advanced vocabulary. *This course has a summer reading requirement.*

Transitions

The 9th grade Fitness, Health and Skills course and the 12th grade Senior Project serve as bookends to the St. Francis education. The former provides a transition between middle school and the demands of high school; the latter serves as a culminating demonstration of the skills St. Francis students learn in their time here.

The Fitness, Health and Skills course takes the physical education and health requirement for high school graduation in Kentucky a few steps further. We ask the question: What do college-bound high school freshmen need to know? Then we spend a year answering it. Interwoven with a comprehensive fitness and health curriculum, we move from current events awareness to public speaking to analysis of our learning and communication styles.

The Senior Project is begun with a proposal process in the 11th grade year, includes significant research, and concludes usually in the spring of 12th grade with a presentation and a written component. The Project is intended to provide all St. Francis Seniors with the opportunity to devote concentrated effort and time to a project focused on that which interests them most, to develop those independent research skills which are more and more being expected of college-bound students, to experience the tensions and rewards of a public presentation of their work, and to demonstrate that their years at St. Francis have culminated in the maturation of the integrated and confident intelligence which it is the school's mission to encourage and affirm.

In serving as introduction to and finale of the St. Francis education, the Fitness, Health and Skills course and the Senior Project fulfill the school's mission to *prepare students academically and personally for college and life*.

Transitions Student Profiles

Corinna

Corinna was an academic star from the moment she set foot in the halls of St. Francis. She had won our Scholarship Competition for incoming 9th graders, and she blazed through her courses with a trail of As in her wake. For her Senior Project, she researched some esoteric philosophical concepts and, for her presentation, taught a class on them. It was extraordinarily well done, causing more than one teacher in attendance to encourage her to go into teaching at some level. Corinna went on to an Ivy League college where she proved that her academic and personal preparation were as superb as her innate abilities.

Sylvester

Sylvester was an affable young man, a joy to have as part of the community. For him, the Senior Project was akin to torture in that it requires a public presentation. His natural shyness and modesty caused him some panic as he prepared. The project was solid, and the presentation went well. Now off in college, he has the satisfaction of knowing his own capability and remembering his accomplishment.

Electives

Elective Offerings at St. Francis

Electives at St. Francis often fall within departmental lines, but occasionally there are courses that aren't easy to categorize. One of the benefits of the school's philosophy is that we can respond to student interest, so class offerings may result directly from students asking for them. In addition, the faculty has eclectic and myriad interests and thus the ability to create some unique courses.

Recent elective offerings that fall outside of our academic departments include courses in **Business & Finance Principles, Advertising Principles & Practices, and Community Service & Leadership**. This last course, in particular, speaks to the portion of our vision statement in which we strive to help our students become "mindful, informed young adults."

To have a final Elective Offerings section in the Curriculum Guide, we believe, leaves us open to greater possibility. There are courses we – and our students – have yet to dream up, and this page serves as an invitation to imagining them.

Electives Student Profiles

Students at St. Francis take myriad different paths. Our founder, Tom Pike, used to say, "150 students, 150 tracks." For many students, electives provide an opportunity to explore a new field.

Damon

Damon was a serious and strong student. He was aiming toward the field of engineering for his college study, and so he spent some of his elective time as a junior and senior in math and science courses. But he also had a strong bent toward community service, and as a senior, he chose to take the Community Service & Leadership course. He told his teacher after the semester had ended how much he had enjoyed the class, particularly since it was so different in content than any other class he was taking. He also found the readings and assignments to be personally meaningful in a way unlike his more traditional academic courses.

Albert

Albert was a very bright young man, but one who did not, as the saying goes, apply himself. He did adequately in his classes, but did not nearly reach his potential. Neither he nor his teachers could figure out what might set him on fire, really get him motivated - until, that is, he enrolled in the Business & Finance Principles course. His talent for understanding the material was immediately evident. The class ultimately prepared him for a Senior Project based on the stock market, during which his aptitude for business was in full force. Albert is now in college and, we suspect, headed toward a Fortune 500 CEO career.