

# COURSE CATALOG

2024  
2025

**SAINT XAVIER HIGH SCHOOL**  
**PURSuing EXCELLENCE IN ALL ENDEAVORS**

## PLEASE READ FIRST

Before proceeding, take time to look through this course book to see which courses and electives you are interested in taking. Consider whether you will be requesting a level change. If so, talk to a teacher in that area—level changes will require approval from your current teacher.

Several of our courses share the same course name. To be placed in the proper class, pay close attention to course numbers when filling out the course registration worksheet. Some courses have a video description linked to the course description. You may click on the link to see a short introductory video from the teacher.

*List **at least 3** alternate courses you are willing to take for any elective if your first choices are not available. Take time to carefully consider your elective choices. Once the master schedule is set, schedule change requests may be difficult or impossible to honor. Elective change requests made after schedules have been released will incur a \$25 schedule change fee.*

## HOW TO REGISTER

1. Click on the appropriate link below to access your course worksheet. It will open in Preview.
  - a. Tap the “Open In...” icon in the upper right and choose Acrobat  
(if Acrobat is not installed on your iPad, you can get **Adobe Acrobat Reader** for PDF from the App Store or through the Self Service app).
  - b. Fill in the worksheet on your iPad using the Acrobat app.

**Sophomore Course Worksheet** [link](#) (for current freshmen)

**Junior Course Worksheet** [link](#) (for current sophomores)

**Senior Course Worksheet** [link](#) (for current juniors)

2. Use your course worksheet to plan out your classes for next year. This is the time to discuss which courses you should take with your teachers, counselor, and parents.
3. On the afternoon of **February 6**, you will register for courses during the last period of the school day. Your teacher will guide you through the process of entering your courses into the **online registration system** ([click here to access](#)).
4. Your counselors (and teachers, if you are requesting a level change) will review your selections. If there are any issues, they will reach out to you.

For technical help with your iPad or the registration system, see a member of the IT staff. For questions about the registration process, see your counselor or Dr. Dan McCue in the Studies Office.

## Registration Deadline is February 8, 2024

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## Graduation Requirements

The course credits listed below are required for graduation. It is the responsibility of each student to know and understand the information. All students graduating from Saint Xavier will have the necessary courses and credits to satisfy the requirements for both the Kentucky State Board of Education and the Pre-College Curriculum as determined by the Kentucky Council on Higher Education. All potential NCAA athletes should review the NCAA eligibility requirements. If you have a question, make an appointment to see your counselor or Dr. Dan McCue, Assistant Principal for Academic Services.

<b>SUBJECT</b>	<b>CREDITS</b>
Theology	4
English	4
World Language	2 (consecutive years in the same language)
Mathematics	4
Science	3 (Biology, Chemistry, and one additional lab science)
Social Studies	3 (to include US History and World Civilization)
PE/Health	1
Fine Arts	1
Electives	4
<b>Total Required Credits</b>	<b>26</b>

### Academic Promotion

To qualify for grade level promotion, a student must earn credits according to the following schedule:

<b>Sophomore Standing</b>	6 credits
<b>Junior Standing</b>	13 credits
<b>Senior Standing</b>	19 credits

### Suggestions for Course Scheduling

The standard college preparatory sequence includes these course sequences:

<b>English</b>	4 units*
<b>Mathematics</b>	4 units*
<b>Science</b>	4 units
<b>World Languages</b>	3-4 units
<b>Social Studies</b>	3-4 units

\*The Kentucky Department of Education requires four consecutive years of Math and English courses.

## Course Selection

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The Registration Process provides each student with the time, information, and counseling needed to make careful decisions about his schedule of classes. The Master Schedule of Classes reflects the courses required for each student to reach candidacy for graduation and honors student preference whenever possible. Once the Master Schedule is set, it is difficult to change a student's schedule.

### Schedule Change Policy

**Elective Courses:** A student may drop or add an elective course within the *first five days* of the course. A student may drop an elective and opt to take Independent Study within the first ten days of the course, as long as the student is not already registered for Independent Study. Requests for change of elective courses due to a student changing his mind will be processed, if the Master Schedule permits, at a cost of \$25.00.

**Change in Class Level:** A level change request should be considered as the last step to resolve an academic problem. Before any change in class level will be considered, students are expected to attempt to resolve the academic problem through documented one-on-one contact with the teacher and completion of all assignments. Following a three-week period, the teacher will review student performance with the student, his parent(s), and his counselor and/or Assistant Principal. A recommendation regarding the level change will be made after that review. Exceptions to this policy may be made if it is determined that an error has occurred in academic placement that needs to be corrected immediately.

**AP Courses:** A student is allowed to drop an AP course through the first four weeks of class and take a study hall if he is not already enrolled in a study hall and if he has study hall options remaining. After the fourth week, a student may still drop an AP course for a study hall up to the ninth week of the course. However, the withdrawal will be noted on the student's transcript with a W. A student may not drop an AP class after the first nine weeks of class. There is a \$25.00 fee to make the change requested.

## Honors Courses

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Saint Xavier Honors courses are designed to meet the needs of gifted students. For the first two years, students enrolled in Honors courses will study essentially the same subjects as students in the regular college preparatory program. However, they will proceed at an accelerated rate and more exacting standards of achievement are required. In the junior and senior years, these students will have the opportunity to take college-level courses in several subject areas. Students are selected for admission to Honors courses on the basis of native aptitude, strength of motivation, and past record of achievement.



## Kentucky Educational Excellence Scholarship (KEES)

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The KEES program provides scholarships to Kentucky students who earn at least a 2.5 GPA each year they attend a certified Kentucky high school. The better they do in high school, the more they earn toward college. Students may also earn awards for ACT/SAT scores and Advanced Placement (AP) test scores. Visit [KHEAA](#) for more information.

Note: The Kentucky Higher Education Assistance Authority awards the base amount of the KEES scholarship to every eligible Kentucky high school student based on the grade point average (GPA) reported by the student's high school for each grade level. The GPA is expressed on a 4.0 grading scale where A=4.0, B=3.0, C=2.0, D=1.0 and an F=0. An exception is made for grades in Advanced Placement and dual-credit classes offered at Saint Xavier. Grades in these classes will be expressed using a 5.0 grading scale where A=5.0, B=4.0, C=3.0, D=2.0 and an F=1.0. The grading scale cutoff scores used to determine the letter grade for each course shall be the same as those used to determine the letter grade for each course reported on the student's official high school transcript.

## NCAA Eligibility Requirements

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To determine eligibility, the NCAA looks at grades in core classes and test scores (ACT/SAT). Every student-athlete planning to attend a Division I or II college for the first time must be certified by the NCAA. To view the latest rules and to register, visit the [NCAA Eligibility Center](#).

## English Courses

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### **1111 Honors Foundations in Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Placement by administration using placement exam scores and past performance as guidelines.

Intended to prepare students for future AP Literature and Language courses, this course is designed for students with increased competence in reading and writing and helps students master the components of a traditional English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. Special emphasis is put on advancing reading comprehension, sentence structure, and the basics of composition. Students should expect frequent reading and writing assignments, requiring a significant investment of time outside of class.

### **1113, 1115, 1117 Foundations in Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Placement by administration using placement exam scores and past performance as guidelines.

Designed to prepare students for American Literature and Composition sophomore year. This course helps students master the components of a traditional English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. Special emphasis is put on reading comprehension and the basics of composition. Students should expect to work outside of class to improve their skill in each of these areas.

### **1119 Foundations in Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Placement by administration using placement exam scores and past performance as guidelines. Concurrent enrollment in Core Learning 7660.

This course helps students develop and enhance their skills in grammar, composition, vocabulary development, and research techniques. This course provides special approaches to English instruction addressing a variety of learning styles.

### **1121 Honors American Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Sophomore and placement by the English department.

Intended to prepare students for AP Literature and AP Language courses, this course is designed for students with increased competence in reading and writing who have adopted the habits necessary to continue to improve at an advanced rate as readers and writers. This course helps students gain an understanding of American literature while mastering English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. Special emphasis is placed on improved compositional techniques, grammatical competence, and a greater mastery of reading comprehension. Students in the honors level should expect frequent reading and writing assignments, requiring a significant investment of time outside of class.

### **1123 / 1125 / 1127 American Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Sophomore and placement by the English department.

Students gain an understanding of American literature as they continue developing their skills in writing, grammar, usage, composition, vocabulary development, public speaking, reading, and research.

## English Courses

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### **1129 American Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Sophomore and placement by the English department.

Students will continue to develop their skills in writing, grammar, usage, composition, vocabulary development, public speaking, reading, and research. This course provides special approaches to English instruction tailored to students who might otherwise struggle with the concepts and skills required for advancement.

### **1131 Honors British Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Junior and placement by the English department.

This course, intended to prepare students for the senior year Honors Seminar in Literature and Composition, provides students with a study of British Literature and is designed for students with increased competence in reading and writing who have adopted the habits necessary to continue to improve at an advanced rate as readers and writers. This course helps students master the components of a traditional English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. This course has a special emphasis on improved compositional techniques including stylistic manipulations and a greater mastery of reading comprehension. Students in the honors level should expect frequent reading and writing assignments, requiring a significant investment of time outside of class.

### **1133, 1135, 1137, 1138 British Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Junior and placement by the English department.

Provides students with a study of British literature as they continue developing their skills in writing, grammar, usage, vocabulary development, public speaking, and research. The course helps students prepare for standardized tests (e.g., PSAT, SAT, and ACT). Special emphasis is placed on improved compositional techniques, grammatical competence, and a greater mastery of reading comprehension. Students should expect to work outside of class to improve their skill in each of these areas.

### **1141 Honors Seminar in Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Senior and placement by the English department.

This course, intended to prepare students for reading and writing at the advanced collegiate level, is designed for students with increased competence in reading and writing who have adopted the habits necessary to continue to improve at an advanced rate as readers and writers. This course helps students master the components of a traditional English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. Special emphasis is placed on improved compositional techniques including stylistic manipulations and a greater mastery of reading comprehension. Students should expect frequent reading and writing assignments, requiring a significant investment of time outside of class.



## English Courses

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### **1143, 1145, 1147, 1148 Seminar in Literature and Composition (2 semesters / 1 credit)**

**Prerequisites:** Senior and placement by the English department.

Students explore classics of world literature as well as contemporary fiction and non-fiction. Emphasis is placed on writing skills, including work on college application essays and a formal research paper. Students will also develop organizational skills and speaking skills. Students should expect to work outside of class to improve their skill in each of these areas.

### **1930 AP English Language and Composition/ British Literature (2 semesters / 1 credit)**

**Prerequisites:** Junior, 1121, and department approval.

[\(click for video description\)](#)

Designed for students with increased competence in reading and writing who have adopted the habits necessary to continue to improve at an advanced rate as readers and writers. This course helps students master the components of a traditional English program: grammar, composition, vocabulary development, public speaking, reading, research, and literature. This course has a special emphasis on improved compositional technique including stylistic manipulations and a greater mastery of reading comprehension. Students should expect frequent reading and writing assignments, requiring an investment of time outside of class greater than that of most courses. The class focuses on the history of British literature and covers significant works of prose, poetry, and drama. This course prepares students to take the AP English Language and Composition College Board exam and provides adequate background for the AP English Literature course during the senior year.

### **1940 AP English Language and Composition (2 semesters / 1 credit)**

**Prerequisites:** Senior, a minimum of a B in 1131, and department approval.

[\(click for video description\)](#)

Designed for students already capable of college-level work. Engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. This course prepares students to take the AP English Language and Composition College Board exam.

### **1941 AP English Literature (2 semesters / 1 credit)**

**Prerequisites:** Senior, minimum of a B in 1131 or 1930, and department approval.

Designed for students already capable of college-level work. Focuses on the study of novels, dramas, and poetry. This course prepares students to take the AP English Literature Board exam.

## English - Communications Courses

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### **1153 Honors Journalism (1 semester / 0.5 credit)**

**-OR-**

### **1154 Journalism (1 semester / 0.5 credit)**

**Prerequisites:** Senior, junior, or 2nd semester sophomore. Minimum of a B in previous English class. Signature of current English teacher required.

This course is a prerequisite for Multimedia Publishing. Students will learn about journalism, including what makes a story newsworthy and the ethics of reporting. They will also develop skills in different types of writing, conducting interviews, photography basics, and video filming and editing. Students will become familiar with software like SNO Sites, Canva, and CapCut, which they'll use for Xavier News publication.

### **1201 Honors Multimedia Publishing 1 (1 semester / 0.5 credit)**

**-OR-**

### **1205 Multimedia Publishing 1 (1 semester / 0.5 credit)**

***Xavier News***

**Prerequisites:** Junior or senior. Minimum of B in 1153 Honors Journalism or 1154 Journalism.

Students will get hands-on experience in producing stories for the twenty-first century media environment. Students create content for an online audience at [xaviernews.org](http://xaviernews.org) by using a variety of storytelling methods. Projects and activities will include: writing and formatting stories, filming and editing videos, recording and editing podcasts, and creating graphic designs for social media posts.

### **1202 Honors Multimedia Publishing 2 (1 semester / 0.5 credit)**

### **1203 Honors Multimedia Publishing 3 (1 semester / 0.5 credit)**

***Xavier News***

**Prerequisite:** Junior or senior. Minimum of B in prior Multimedia Publishing course.

Students will get hands-on experience in producing stories for the twenty-first century media environment. Students create content for an online audience at [xaviernews.org](http://xaviernews.org) by using a variety of storytelling methods. Projects and activities will include: writing and formatting stories, filming and editing videos, recording and editing podcasts, and creating graphic designs for social media posts.

### **1185 Leadership - Fall (1 semester / 0.25 credit)**

### **1186 Leadership - Spring (1 semester / 0.25 credit)**

**Prerequisites:** Senior with department approval.

**NOTE:** Students are not allowed to sign up for Independent Study in the same semester if selecting this course.

This course is designed for students with an interest in and a capacity for helping peer writers through their writing process. This course helps students develop as readers and writers of compositions across disciplines, engaging in common sample writing errors and processes while serving as editors and advisors to peer writers. Students can expect weekly sample prompts to build their familiarity with common and particular writing elements – including organization, purpose, audience and voice,

## English - Communications Courses

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drafting, revision, editing, and publishing. Students can expect minimal or no written homework, and will spend time improving their own writing and the work of peers seeking assistance. All work is completed during school hours.

### **1251 Honors Photojournalism (2 semesters / 1 credit)**

**-OR-**

### **1255 Photojournalism (1 semester / 0.5 credit)**

**Prerequisites: Sophomore, junior, or senior with a minimum of a B in previous English class.**

**Signature of current English teacher required.**

This course is designed for students who are interested in writing, photography, and/or doing layout. In addition to learning basic journalistic writing skills, students will learn the fundamentals of Photoshop and InDesign, and they will apply their skills to writing articles, taking photos, and creating layouts for the Xavier News and possibly the yearbook.

### **1351 Honors Introduction to Speech (1 semester / 0.5 credit)**

**Prerequisites: Sophomore, junior, or senior. Minimum of a B in English.**

**-OR-**

### **1355 Introduction to Speech (1 semester / 0.5 credit)**

**Prerequisites: Sophomore, junior, or senior.**

[\(click for video description\)](#)

Students will explore and perform a variety of public speaking activities including traditional speeches, debates, comic presentations, and the use of PowerPoint and teleprompters. The course helps shy students gain confidence and energetic students learn to channel their energy into a polished form.

### **1455 Yearbook - Spring (1 semester / 0.5 credit)**

**Prerequisites: Junior or senior standing, minimum of a B in previous English class, and signature of current English teacher.**

This course is designed for students who are interested in doing layout, photography, and/or writing. The course consists of working individually or in small teams to produce spreads for Saint Xavier's yearbook, *The Tiger*, with content from Xavier News and independently covered stories. As such, the course does require students to attend outside school events occasionally. The ability to work with others, learn as you go, and meet deadlines is extremely important.

### **1456 Information Science (1 semester / 0.25 credit)**

**Prerequisites: Senior with teacher recommendation.**

**NOTE: Students are not allowed to sign up for Independent Study in the same semester if selecting this course.**

This course is designed for students with an interest in a service learning experience. Primary functions include developing communication skills necessary to help students and staff locate physical and digital resources appropriate to their purpose. Upon successful completion of this class, students will

## English - Communications Courses

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demonstrate understanding of the Dewey Decimal Classification (DDC) system and how resources are organized in the library as well as an understanding of library policies and procedures. Students will learn valuable digital citizenship and research skills and will help their peers with copyright issues and proper citations. Students will gain a variety of office and technical skills that will assist with future employment. Though the class will not require homework, students will be expected to read one book of their choosing per quarter and complete a book review for the online catalog.

## World Language Courses

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### Spanish

#### **2211 Honors Spanish 1 (2 semesters / 1 credit)**

**Prerequisites:** Gifted freshman or sophomore with department approval. Junior or senior with a special interest in Spanish may also elect this course with department approval.

This is a first year course introducing the student to the Spanish language. Its main objective is to build a foundation in the skills of speaking, listening, reading, and writing. Basic vocabulary and grammatical structures are presented in oral conversational situations. Students will also be introduced to the culture and customs of the Spanish speaking world. This course will require more work and will be more demanding as it is an honors class. Students can expect to have homework on a daily basis, frequent quizzes, compositions, and tests. Since learning a new language is acquiring a skill, daily practice is required. Each student must be prepared to participate daily in class activities.

#### **2214 Spanish 1 (2 semesters / 1 credit)**

**Prerequisites:** Freshman beginning a language. Junior or senior who has already completed their language requirement in another language.

This is a first year course introducing the student to the Spanish language. Its main objective is to build a foundation in the four language skills of listening, speaking, reading, and writing. Basic vocabulary and grammatical structures are presented in conversational situations. Students will also be introduced to the customs and cultures of the Spanish speaking world. Students can expect to spend approximately 20-25 minutes each night in preparation of written homework or study. Daily oral class participation to build the skills needed for communication in Spanish is required.

#### **2225 Spanish 1 (2 semesters / 1 credit)**

**Prerequisites:** Sophomore beginning their study of Spanish.

Listening, pronunciation, and speaking, mostly repetition, are initially stressed. A vocabulary base on which the students will build is presented. The study of grammatical forms, through patterned drills and eventually free response drills enable the student to use, in a very guided manner, the grammatical forms and the vocabulary. As the students progress, reading and writing skills are introduced. Students will be introduced to the culture and customs of the Spanish speaking world. Frequent homework, study, and preparation for quizzes and tests is expected of all students. Nightly homework is expected to take 15-20 minutes. Positive and active student participation is stressed as a way to master the concepts learned in class.

#### **2238 Introduction to Spanish 1 (2 semesters / 1 credit)**

**Prerequisites:** Junior course for those enrolled in English 1129 as a sophomore.

Basic communicative vocabulary will be the focus of the class. Students will be introduced to grammar structures and will also study the customs and cultures of the Spanish speaking world. Nightly review of class notes and activities, completion of written homework, and study will require 20 minutes daily.



## World Language Courses

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### **2210 Honors Spanish 2 (2 semesters / 1 credit)**

**Prerequisites:** Freshman with previous Spanish experience. Student will take a placement exam to determine his readiness for this course.

This course continues to focus on the four language skills of listening, speaking, reading, and writing and makes the connections between those areas to produce a student who can communicate, both verbally and written, in Spanish. Emphasis is placed on vocabulary acquisition and knowledge of grammatical structure. It is designed for the motivated student with previous Spanish instruction or home experience. Students should expect a minimum of 30 minutes of homework each night and be prepared for weekly quizzes. Projects incorporating Spanish language and Hispanic culture are also part of the course work.

### **2221 Honors Spanish 2 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 2211 and department approval. This is generally a sophomore course.

Students will have continued practice with the grammar skills acquired in Spanish 1 and will be introduced to a wide range of vocabulary themes, while reinforcing those acquired in Spanish 1. Additional grammar skills will be introduced that will prepare the student to become more confident in his listening, speaking, reading, and writing abilities. Cultural topics surrounding Spain, Latin America, and Hispanics living in the United States will also be incorporated into the course work. Students should expect daily homework, frequent quizzes, tests and projects throughout the year and be prepared to spend 20-30 minutes in daily preparation. Students will be expected to participate in Spanish in daily oral communication activities.

### **2224 Spanish 2 (2 semesters / 1 credit)**

**Prerequisites:** 2214 and department approval. This is generally a sophomore/junior course.

This course is designed for the above average student who has demonstrated competency in Spanish 1. The course is a continuation of first year Spanish, building upon the listening, speaking, reading, and writing skills acquired in the previous year. Students will review major concepts of Spanish 1 and explore more complex grammar structures. Knowledge of everyday vocabulary will be amplified. Oral communication is stressed and strengthened. The cultures and societies of Spanish speaking countries and Hispanics in the United States are examined. The course will prepare the student to express himself in a broader variety of everyday situations and prepare him for Spanish 3.

Work for this class includes daily homework assignments, weekly quizzes or tests, brief oral presentations, written assignments of increasing length, and class participation. Students should expect an average of 20-30 minutes of daily homework and study.

### **2235 Spanish 2 (2 semesters / 1 credit)**

**Prerequisites:** 2225 and department approval. This is generally a junior course.

This course is a continuation of the development of the basic skills of listening, speaking, reading, and writing. The vocabulary and the grammatical structures become more sophisticated. Oral communication is stressed and strengthened. Frequent homework and quizzes are given. Students

## World Language Courses

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should be prepared to spend 20-25 minutes nightly on homework and study. Positive, active student participation is needed to master the concepts presented in the course.

### **2248 Introduction to Spanish 2 (2 semesters / 1 credit)**

**Prerequisites:** Senior, 2238, department approval.

This course is a continuation of the study of the Spanish language. Emphasis continues to be on developing vocabulary, basic grammar points, and cultural awareness. Review of class notes, completion of homework or study will require an average of 20 minutes each night.

### **2231 Honors Spanish 3 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 2210 or 2221 and department approval.

This course is designed for the student who wants to further develop his language capabilities. This course presents an intensive study of the Spanish language, preparing the student to communicate effectively in a wide variety of written and oral situations. Students will increase their range of everyday vocabulary, review and expand upon important concepts from Spanish 2 as well as new topics. More intensive listening and speaking skills are stressed as all class discussion is in Spanish. An extensive survey of Spain's geography, society, culture, and history is presented. Writing skills are developed as students compose essays of increasing length and complexity. Work for this class includes grammar exercises, reading selections in Spanish, quizzes, tests, oral presentations, essays, and class participation. Students should expect a minimum of 30 minutes of daily homework and study.

### **2234 Spanish 3 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a C in 2224 and department approval.

This course offers more advanced practice in the skills of listening and speaking. Emphasis is given to the development of vocabulary, word study exercises, and the incorporation of vocabulary into oral communication activities. More complex grammatical structures are studied and used in various exercises and activities in both writing and speaking. Students are expected to participate daily in oral communication activities. Frequent homework, quizzes, and work on individual and/or group projects is expected of all students. Students should expect 20-30 minutes of homework and study time nightly.

### **2245 Spanish 3 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a C in 2235 and department approval. This is generally a senior course.

This course continues building on vocabulary and grammar. More advanced practice in the skills of listening and speaking will be presented. Special attention is given to the development and utilization of vocabulary. Students will continue to explore the cultures of the peoples of the Spanish speaking world. Positive and active participation is required of students. Students should expect to spend 20 minutes nightly on homework or study.

## World Language Courses

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### **2241 Honors Spanish 4 (2 semesters / 1 credit)**

**Prerequisites:** Junior or Senior with a minimum of a B in 2231 and department approval.

An overview of Latin American history, literature, and culture is presented. There are frequent oral and written grammar reviews and continued perfection of written discourse is stressed. Students will be expected to use the Spanish language in all phases of the course work. This course is for the highly motivated and hardworking Spanish student who is hoping to prepare himself for Spanish study at the university level or is preparing himself for AP Spanish in his senior year. Students are expected to do a minimum of 30 minutes of homework each night. Quarterly research projects are required as well as additional class and individual projects.

### **2244 Spanish 4 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a C in 2234 and department approval. This is a junior/senior course for motivated language students wishing to improve their spoken, written, listening and reading abilities in the second language through active class participation.

This course is a continued study of Spanish vocabulary, culture, and grammar in more depth. This course will prepare the student to succeed in college Spanish courses, to use Spanish in real-life situations, and to become more proficient in his listening, speaking, reading, and writing skills. Emphasis is placed on vocabulary building and language production as conversational skills will be highly stressed. Students can expect to hear and use Spanish exclusively in class. Students will become more independent and creative in their use of the language and further develop their abilities to communicate in both spoken and written Spanish. Students will complete short journal entries every 2 weeks and will lead the class discussion every Friday on a student-chosen topic. A survey of the customs and cultures of the Spanish-speaking world is examined through various types of presentations that show how the Hispanic culture interacts with, differs from, and is similar to their own culture. Students can expect to spend 20-30 minutes per night studying and completing homework assignments.

### **2941 AP Spanish Language and Culture (2 semesters / 1 credit)**

**Prerequisites:** Senior with a minimum of a B in 2241 and department approval.

This course offers intensive practice in the use of spoken and written Spanish. Students will be expected to use the Spanish language in all phases of the course work. Emphasis will be placed on perfecting oral communication skills and expository writing. In order to facilitate class discussions, outside readings will be presented, chosen by the instructor and dealing with Peninsular and Latin American culture and literature. This course prepares students to take the AP Spanish Language and Culture College Board exam. This course is for highly motivated students who plan to pursue the study of Spanish in college. Students should be prepared for nightly study, essay writing, and group and individual projects.

## World Language Courses

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### French

#### **2311 Honors French 1 (2 semesters / 1 credit)**

**Prerequisites:** Freshman or sophomore with department approval. Junior or senior with a special interest in French may also elect this course with department approval.

#### **2325 French 1 (2 semesters / 1 credit)**

**Prerequisites:** Freshman or Sophomore beginning a language and any junior or senior.

This introduction to the French language emphasizes the acquisition of the four language skills – listening, speaking, reading, and writing – as well as basic grammatical structures and forms which are presented in oral conversational situations. The course also offers an introduction to the cultures of the French speaking peoples of the world. Students will have frequent quizzes, compositions, and tests and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

#### **2321 Honors French 2 (2 semesters / 1 credit)**

**Prerequisites:** 2311 and department approval. This is generally a sophomore course.

-OR-

#### **2335 French 2 (2 semesters / 1 credit)**

**Prerequisites:** 2325 and teacher approval. This is generally a junior course.

Continued development of skill and understanding in listening and speaking. There is an increased attention given to grammatical structures and forms which are presented in context and conversations. Students can expect to revisit vocabulary themes and grammatical structures as they learn new words and structures. There is increased practice in reading and writing. Students will have several research projects during the year. The culture and civilization of the French speaking peoples is further explored. Students will have frequent quizzes, compositions, and tests and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

#### **2331 Honors French 3 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 2321 and department approval.

More intense practice in the skills of listening and conversation. Frequent practice in both reading and writing, as well as selected readings from Francophone literature and cultural and historical selections. The more complex grammatical structures and forms are studied by means of audio-lingual exercises and oral and written composition. Students will also continue to develop larger vocabularies. Students will have frequent quizzes, compositions, and tests and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

#### **2345 French 3 (2 semesters) 1 credit**

**Prerequisites:** Minimum of a C in 2335 and department approval.

More advanced practice in the skills of listening and speaking. Special attention is given to developing reading skills by frequent practice with contemporary selections, word study exercises, and

## World Language Courses

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conversation exercises. The more complex grammatical structures and forms are studied by means of audio-lingual practice and varied exercises in composition and conversation. Students will also continue to develop larger vocabularies. Students will have frequent quizzes, compositions, and tests and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

### **2341 Honors French 4 (2 semesters / 1 credit)**

**Prerequisites: Minimum of a B in 2331 and department approval.**

This course develops proficiency in the use of French by intensive practice in listening, conversation, reading, and writing. Students can expect a combination of review and in-depth study of grammatical structures. There is continued emphasis on the acquisition of vocabulary. A more detailed study of French life and culture is undertaken through selected literary, journalistic, and popular works. Students will be required to use the French language in all phases of the course work. Students will have frequent quizzes, compositions, journals, tests and several research papers and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

### **2344 French 4 (2 semesters / 1 credit)**

**Prerequisites: Minimum of a C in 2345 and department approval.**

This course is a continuation of the study of French grammar and vocabulary in more complex forms. There is a greater emphasis on vocabulary building and usage of the language in spoken form. Further development of reading and writing skills will be stressed as well. Students will further develop their abilities to complete oral and written reports in French. Conversation skills will be stressed. A broader study of the customs and cultures of the French-speaking world will be presented. Students will be required to use French in all phases of the course work. Students will have frequent quizzes, compositions, journals, tests and several research papers and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis.

### **2942 AP French Language and Culture (2 semesters / 1 credit)**

**Prerequisites: Senior with a minimum of a B in 2341 or A in 2331.**

This course offers intensive practice in the use of the spoken and written language. Emphasis will be placed on perfecting oral communication skills and expository writing. Students will be expected to use French in all phases of the course work. Appropriate readings dealing with culture, history and language will be presented. Students will have frequent quizzes, compositions, essays, tests and several research papers and should expect to spend approximately 30 minutes a day on written homework and study. Class participation and practice is expected on a daily basis. This course prepares students to take the AP French Language and Culture College Board exam.



### German

#### **2411 Honors German 1 (2 semesters / 1 credit)**

**Prerequisites:** Freshman or sophomore with department approval. Junior or senior with a special interest in German and department approval.

This course is designed for above average students interested in exploring the German speaking world. This course is intended as a beginning language course and is designed to provide students with a basic understanding of the German language with particular attention to speaking and writing skills. Listening and writing skills are also practiced. Students will communicate in German, gain knowledge and understanding of German culture, connect with other disciplines, and acquire vocabulary and grammar skills. Students will develop insight into the nature of language and culture and will participate in Culture, Comparisons, Connections, and Communities. They will study basic grammatical structures and vocabulary while being introduced to the history of German and the culture and history of the German speaking world. Language is best learned by doing. Students will be expected to practice regularly outside of class through homework, projects, essays, and independent review of vocabulary and grammar concepts. There will be about 20 minutes of homework and study required each night.

#### **2425 German 1 (2 semesters / 1 credit)**

**Prerequisites:** Freshman or sophomore beginning a language. Junior or senior who has completed their language requirement in another language.

This course is a beginning language course designed for the student interested in exploring the German speaking world. They will study basic grammatical structures and vocabulary while being introduced to the history of German and the culture and history of the German speaking world. It is designed to provide students with a basic understanding of the German language with particular attention to speaking and writing skills. Listening skills are also practiced. Students will be expected to practice regularly outside of class through homework, projects, essays, and independent review of vocabulary and grammar concepts. Students should expect about 20 minutes of homework and study each night.

#### **2421 Honors German 2 (2 semesters / 1 credit)**

**Prerequisites:** 2411 and teacher approval. This is generally a sophomore course.

#### **2435 German 2 (2 semesters) 1 credit**

**Prerequisites:** 2425 and department approval. This is generally a junior course.

This course continues to develop skill and understanding in listening, speaking, and writing with increased attention given to new vocabulary themes and grammatical structures. Increased practice in reading, writing, and oral presentation involves students in several research projects. The culture and history of the German speaking peoples is further explored. Students are expected to actively participate daily in class utilizing all language skills. In addition, students should expect to spend an average of 30 minutes daily completing written homework and mastering new material. Honors has a more demanding pace of instruction.

## World Language Courses

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### **2431 Honors German 3 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 2421 and department approval.

### **2445 German 3 (2 semesters) 1 credit**

**Prerequisites:** Minimum of a C in 2435 and teacher approval.

Students experience a more rigorous approach to listening and conversation coupled with a more intensive survey of authentic Germanic literature and selected cultural and historical selections. The course offers various thematic approaches in further development of vocabulary and grammatical practice. Students are expected to actively participate daily in class utilizing all language skills. Students should expect daily homework, frequent quizzes and tests, along with research projects and more extensive composition requirements. Honors has a more demanding pace of instruction.

### **2441 Honors German 4 (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 2431 and department approval.

This course promotes proficiency in all usage of German through intensive practice of all major skills: listening, conversation, reading, and writing. Students are exposed to intensive review of previously studied vocabulary and grammar, using German in all phases of the course work. Students will be introduced to more challenging examples of German literature. Students are expected to actively participate daily in class utilizing all language skills. Students should expect daily homework, frequent quizzes, tests, more in-depth research projects and more extensive composition requirements.

### **2943 AP German Language and Culture (2 semesters) 1 credit**

**Prerequisites:** Senior. Minimum of a B in 2441 or an A in 2431, and department approval.

This course offers intensive practice in the use of spoken and written German. Students will be expected to use the German language in all phases of course work. Students are expected to actively participate in class daily utilizing all language skills. Students should expect daily homework, frequent quizzes, tests, more in-depth research projects and more extensive composition requirements. Following a college-level curriculum, all work will focus on perfecting oral communication skills and narrative writing. Exposure to more advanced German literary examples will encourage more active class discussion in preparation for college study. This course prepares students to take the AP German Language and Culture College Board exam.

## Mathematics Courses

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### Calculators and iPads

*Most students are required to have a graphing calculator for math class. At this time, the Math Department recommends the TI-84 Plus CE or any calculator in the TI-84 series. Instruction in the classroom will focus on the TI-84 series. The TI-Nspire CX is another good option. Students will learn the proper use of this powerful technology as well as the appropriate paper-&-pencil methods, so they may become well-rounded math students. All math courses will allow for the appropriate use of calculators. While there are many good iPad calculator apps, students may not be allowed to use the iPad on assessments. If you have any questions, check with your math teacher before purchasing a calculator.*

### **3113 Honors Algebra 1 (2 semesters / 1 credit)**

**Prerequisites:** Placement test score, algebra exit exam score, and teacher recommendations are used to determine level.

Designed for students who are proficient in pre-algebra skills and who possess a mastery of basic whole and rational number skills. Traditional algebraic concepts of simplifying and solving equations will be extended to simplifying and working with polynomials and utilizing these skills in the analysis of linear, quadratic, and rational functions. An increased emphasis on critical thinking skills and problem solving is stressed throughout the course. Students should be prepared to analyze and comprehend given data and information and translate this into mathematical equations. Students should expect a minimum of 20 minutes of homework each day and be prepared for weekly announced and unannounced quizzes. This course prepares students for Honors Geometry.

### **3115, 3117 Algebra 1 (2 semesters / 1 credit)**

**Prerequisites:** Placement test score, algebra exit exam score, and teacher recommendations are used to determine level.

Students will study the topics of algebra, including: techniques for solving equations, inequalities, and systems; properties of exponents; properties of quadratics; and polynomials with an emphasis on factoring. The course will focus on the development of critical thinking skills, the application of algebraic concepts to real-life problems, and the translation of data into mathematical symbols. Students need to be familiar with operations on whole numbers, decimals, and fractions. Students should expect approximately 20 minutes of daily homework, and weekly quizzes or tests. This course prepares students for Geometry.

### **3119 Algebra 1 (2 semesters / 1 credit)**

**Prerequisites:** Placement test score, algebra exit exam score, and teacher recommendations are used to determine level. Concurrent enrollment in 3619.

This course is designed for freshmen in the EXCEL program. Students will study the topics of Algebra with an emphasis on solving equations, applying algebraic concepts to real-life problems, and translating data into mathematical symbols, as well as review basic math skills. Students should expect daily homework and periodic tests and quizzes. This course prepares students for Geometry.

## Mathematics Courses

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### **3211 Advanced Honors Geometry/Algebra 2, Part 1 (2 semesters / 1 credit)**

**Prerequisites:** Open to freshmen. Placement test score, algebra exit exam score, and teacher recommendations are used to determine level.

This is an accelerated course designed for the gifted mathematics student. Students will study the traditional topics of Euclidean Geometry with an emphasis on logical reasoning. Upon finishing the geometry content, students will begin their study of Algebra 2 (see 3333 course description). Students should expect approximately 30 minutes of daily homework, weekly quizzes and tests. This course prepares students to complete Algebra 2 and begin 3321.

### **3213 Honors Geometry (2 semesters / 1 credit)**

**Prerequisites:** Open to freshmen. Placement test score, algebra exit exam score, and teacher recommendations are used to determine level.

Designed for the talented math student. Students will study the traditional topics of Euclidean Geometry with an emphasis on logical reasoning and proof. Students should expect 20-30 minutes of daily homework and weekly quizzes or tests. This course prepares students for Honors Algebra 2.

### **3215 Geometry (2 semesters / 1 credit)**

**Prerequisites:** Open to freshmen. Placement test score, algebra exit exam score, and teacher recommendations are used to determine level.

Students will study the traditional topics of Euclidean Geometry with an emphasis on logical reasoning. Students should expect approximately 20 minutes of daily homework and weekly quizzes or tests. This course prepares students for Algebra 2.

### **3223 Honors Geometry (2 semesters / 1 credit)**

**Prerequisites:** 3113 and teacher approval.

Designed for the talented math student. Students will study the traditional topics of Euclidean Geometry with an emphasis on logical reasoning and proof. Students should expect approximately 20-30 minutes of daily homework and weekly quizzes or tests. This course prepares students for Honors Algebra 2.

### **3225 Geometry (2 semesters / 1 credit)**

**Prerequisites:** 3115 and teacher approval.

Students will study the traditional topics of Euclidean Geometry with an emphasis on logical reasoning. Students should expect approximately 20 minutes of daily homework and weekly quizzes or tests. This course prepares students for Algebra 2.

### **3227 Geometry (2 semesters / 1 credit)**

**Prerequisites:** 3117 and teacher approval.

Students will study the traditional topics of Euclidean Geometry with emphasis on both logical reasoning and application of the geometric properties. Students should expect approximately 20

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minutes of daily homework and frequent quizzes or tests. This course prepares students for Algebra 2.

### **3229 Geometry (2 semesters / 1 credit)**

**Prerequisites:** Sophomore with 3119 and teacher approval.

Students will study the traditional topics of Euclidean Geometry with some experiences of logical reasoning and proof. Students should expect 20- 30 minutes of homework each night and weekly quizzes or tests. This course prepares students for Algebra 2.

### **3321 Advanced Honors Algebra 2, Pt 2 / Precalculus, Pt 1 (2 semesters / 1 credit)**

**Prerequisites:** 3211 and teacher approval.

Designed for the gifted math student, this advanced course will complete their study of Algebra 2 including topics such as: radicals and radical equations, functions (quadratic, polynomial, exponential, and logarithmic), and conic sections. Students will also begin their study of precalculus including most of the traditional trigonometry topics (circular and right triangle trig, applications, trig identities and solving trigonometric equations) as well as vectors, polar graphs and equations, and the complex plane. This course uses the Algebra 2 textbook students used in 3211. Students should expect approximately 30 minutes of daily homework and weekly quizzes and/ or tests. This course prepares students for Honors Precalculus and Honors Calculus.

### **3333 Honors Algebra 2 (2 semesters / 1 credit)**

**Prerequisites:** 3213 or 3223 and teacher approval. Sophomores may take 3223 concurrently with department approval.

Designed for the talented math student, students will study the topics of Algebra 2 with an ongoing emphasis on critical thinking skills and real-life applications. Topics include solving systems of equations, properties of functions (quadratic, polynomial, rational, exponential, and logarithmic), matrices, complex numbers, sequences, and graphical approaches to Algebra. Students should expect daily homework as well as weekly quizzes or tests. This course prepares students for Honors Precalculus.

### **3335 Algebra 2 (2 semesters / 1 credit)**

**Prerequisites:** 3215 or 3225 and teacher approval.

Ongoing emphasis on critical thinking skills and real-life applications. Topics include solving systems of equations, properties of functions (quadratic, polynomial, rational, exponential, and logarithmic), matrices, complex numbers, and graphical approaches to Algebra. Students should expect approximately 30 minutes of daily homework and weekly quizzes or tests. This course prepares students for Precalculus.

### **3337 Algebra 2 (2 semesters / 1 credit)**

**Prerequisites:** 3227 and teacher approval.

Ongoing emphasis on critical thinking skills and real-life applications. Topics include solving systems



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of equations, properties of functions (quadratic, polynomial, rational, exponential, and logarithmic), matrices, complex numbers, as well as a graphical approach to Algebra. Students should expect approximately 20 minutes of daily homework, weekly quizzes, and unit tests. This course prepares students for College Algebra or for Precalculus with department approval.

### **3338 Algebra 2 (2 semesters / 1 credit)**

**Prerequisites:** 3229 and teacher approval.

Ongoing emphasis on critical thinking skills and real-life applications. Topics include solving systems of equations, properties of functions (quadratic, polynomial, and rational), matrices, complex numbers, as well as a graphical approach to Algebra. Students should expect approximately 20 minutes of daily homework, weekly quizzes, and tests every two or three weeks. This course prepares students for 3648 Advanced Algebra.

### **3431 Honors Precalculus, Part 2 (1 semester / 0.5 credit)**

**Prerequisites:** 3321 and teacher approval.

This advanced course, offered first semester only, is designed for the gifted math student. Students will complete their study of Precalculus, advancing their study of the properties of functions (polynomial, rational, exponential, logarithmic, etc.). Other topics include sequence and series, parametric equations, and limits. This course uses the Precalculus textbook students used in 3321. Students should expect approximately 30-40 minutes of daily homework and weekly quizzes or tests. This course prepares students to begin their study of calculus in 3531 (second semester).

### **3433 Honors Precalculus (2 semesters / 1 credit)**

**Prerequisites:** 3333 and teacher approval.

Students will advance their study of the properties of functions (quadratic, rational, polynomial, logarithmic, and exponential). They will also study the traditional topics of trigonometry. Other topics include conic sections, polar equations and their graphs, sequences and series, and an introduction to limits. Students should expect approximately 30 minutes of daily homework and weekly quizzes or tests. Students in this course may apply for dual-credit through U of L. This course prepares students for AP Calculus (AB or BC) as seniors or 3545.

### **3445 Precalculus (2 semesters / 1 credit)**

**Prerequisites:** Algebra 2 and teacher approval.

Students will build on their study of functions from Algebra 2 with an increased emphasis on graphing and data analysis. A graphing calculator is required and essential. Traditional topics of trigonometry will also be explored. Students can expect about 20 minutes of homework most nights and weekly quizzes.

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### **3531 Honors Calculus, Part 1 (1 semester / 0.5 credit)**

**Prerequisites:** 3321 and teacher approval. Students must successfully complete 3431 in the first semester to continue to 3531.

This advanced course, offered second semester only, is designed for the gifted math student. Students will begin their study of calculus, investigating the concepts and applications of the derivative and introducing the integral and some of its applications. Students should expect approximately 30 minutes of daily homework and weekly quizzes or tests. This course prepares students to continue their study of calculus in 3940.

### **3545 Calculus (2 semesters) 1 credit**

**Prerequisites:** Precalculus and teacher approval.

This course offers students an introduction to the main topics of calculus, including limits, derivatives and some of their applications, and integrals and some of their applications. Students should expect 30-40 minutes of daily homework and weekly quizzes or tests. This course prepares students to continue their study of calculus at the college-level.

### **3645 Statistics (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with successful completion of Algebra 2 and teacher approval. Juniors must be enrolled concurrently in Precalculus.

This course offers students an introduction to the main topics of statistics. The course will explore the four main themes of Statistics; 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 4. statistical inference: significance tests and confidence intervals. Students should expect daily homework (30 minutes) and weekly quizzes or tests. This course prepares students to continue their study of Statistics at the college-level.

### **3647 College Algebra (2 semesters / 1 credit)**

**Prerequisites:** Algebra 2 and teacher approval.

This course is designed for the math student seeking an alternative to precalculus for the senior year. Students will strengthen their algebra skills through review, the use of technology, and data exploration. Topics include an introduction to trigonometry. Students should expect daily homework (about 30 minutes), weekly quizzes, and tests every two to three weeks. This course prepares students for entry-level college math courses.

### **3648 Contemporary Mathematics (2 semesters / 1 credit)**

**Prerequisites:** Algebra 2 and teacher approval.

Students will study mathematical concepts through application. Students will use algebraic and proportional reasoning to problem solve and communicate solutions. Students will continue their study of functions and mathematical modeling with exponential functions, statistics, and probability in real-world contexts. Students will also investigate graph theory, voting methods and cryptography.

## Mathematics Courses

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Students should expect approximately 20 minutes of daily homework, weekly assessments and projects. This course prepares students for entry-level college math courses.

### **3940 AP Calculus BC (2 semesters / 1 credit)**

**Prerequisites:** 3531 and teacher approval.

[\(click for video description\)](#)

This Advanced Placement course is designed for the gifted math student and is the continuation of an intensive college-level course in the calculus of functions of a single variable, including topics in derivatives, integrals, and infinite series. Students will complete their three-semester study of calculus. Students in this class will study functions in a variety of forms, including parametric and polar equations. Students should expect approximately 30- 40 minutes of daily homework and weekly quizzes or tests. This course prepares students to take the AP Calculus BC College Board exam and for any rigorous college calculus or engineering program. This course uses the same text which was used for 3531.

### **3941 AP Calculus BC (2 semesters / 1 credit)**

**Prerequisites:** 3433 and teacher approval.

[\(click for video description\)](#)

This Advanced Placement course is an intensive full-year college-level course in the calculus of functions of a single variable, including topics in derivatives, integrals, and infinite series. This course covers the equivalent of two semesters of college calculus. It is designed for motivated and gifted math students. Students should expect daily homework (between 30-40 minutes) and weekly quizzes or tests. This course prepares students to take the AP Calculus BC College Board exam, and for any rigorous college calculus or engineering program.

### **3942 AP Calculus AB (2 semesters / 1 credit)**

[\(click for video description\)](#)

**Prerequisites:** 3433 and teacher approval. Motivated students with an A in 3445 may seek department approval. Final approval for placement in 3942 will be based on the final exam grade and final grade in Precalculus.

This Advanced Placement course is a college-level, full-year course in the calculus of a single variable. This course covers the material of one semester of college calculus. Limits, differential calculus, and integral calculus will be covered in detail. Students should expect approximately 30-40 minutes of daily homework and weekly quizzes or tests. This course prepares students to take the AP Calculus AB College Board exam.

### **3943 AP Statistics (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with a minimum of a B in 3433 or concurrent enrollment with department approval.

[\(click for video description\)](#)

This Advanced Placement course is designed for the talented math student. Students will study

## Mathematics Courses

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organizing and analyzing data (numerical and graphical summaries, normal distributions, and regression models), producing data (observational studies and experimental design), and statistical inference (probability, estimation, and hypothesis testing). Students should expect daily homework (30-40 minutes) and weekly quizzes or tests. This course prepares students to sit for the AP Statistics College Board exam, and for any rigorous college statistics program. Due to the advanced pace of this course, students may find it necessary to come in before or after school for extra testing time once or twice per quarter.

### **3944 Calculus 3 (2 semesters / 1 credit)**

**Prerequisites:** 3941 and teacher approval.

This is a college-level course in multivariable calculus. It completes a survey of calculus by presenting the calculus of functions of several variables. Topics will include a thorough exploration of continuity and its consequences, differentiation and its applications, and the theory of iterated and multiple integrals and their applications in science, engineering, technology and business studies. The course will also cover vector-valued functions, vector analysis, and many engineering applications. The course will be weighted on the Saint Xavier transcript as an Advanced Placement course, however, students should be aware that there is no AP exam for the course. Any college credit awarded will be determined by the admissions and mathematics departments of the student's college of choice.

### **3949 Linear Algebra (2 semesters / 1 credit)**

**Prerequisites:** 3941 and teacher approval.

This is an advanced college-level course for mathematics and engineering majors. It provides an in-depth study of sets or systems of linear equations and their transformational properties. The properties and operations of matrices are used extensively to explore concepts and topics that allow for the analysis of rotations in space; vector spaces and subspaces; basis and dimension; linear independence and dependence; mathematical models and least squares regression analysis; determination of a circle passing through three given points, Eigenvalues and Eigenvectors; and other problems and applications in mathematics, physics, engineering and business. The course will be weighted in the Saint Xavier transcript as an Advanced Placement course, however, students should be aware that there is no AP exam for the course. Any college credit awarded will be determined by the admissions and mathematics departments of the student's college of choice.

## Technology Courses

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### **3765 Web Page Design (1 semester) 1/2 credit**

**Prerequisites:** Sophomore, junior, or senior.

Students will learn to develop and maintain web pages using HTML, Cascading Style Sheets (CSS), an HTML editor, various browsers, and image editing software to create and design their own web pages. After completing this course the student will be able to demonstrate basic image editing and be able to create and design their own website.

### **3771 Honors Robotics (1 semester / 0.5 credit)**

**-OR-**

### **3775 Robotics (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

This hands-on course aims to introduce students to the field of robotics through the construction and programming of VEX robots to accomplish different challenges. The design of manipulators (arms/claws), drive systems, gear trains, lifts, and more will be covered as well as the use of sensors for feedback and decision making. Students will be introduced to robotic programming logic through Graphical RobotC and computer aided design using Fusion 360 and Autodesk Inventor. While most work is done in class, students should expect an occasional homework assignment or need to finish a project before or after school. Honors students will be expected to complete additional projects, with some projects will require higher degrees of complexity compared to the traditional course.

### **3776 Computer Game Programming (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior.

[\(click for video description\)](#)

Students will be introduced to game theory and learn how to create games using Unity and other industry standard software. This course will introduce students to object oriented, event driven programming and will teach students how to navigate the Unity game engine, including game physics, user input, scripting, lighting, character animation, camera movement, level design, and more. While there will be occasional quizzes and homework assignments, the majority of the assignments are in-class, game design projects. Over the course of the semester, students will design and create several working computer games which can run on a PC, on the web, or on a mobile device.

### **3785 Introduction to Programming in Python (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior. Open to freshmen with department approval.

[\(click for video description\)](#)

Students will be introduced to programming through the world's most popular programming language: Python. Students will learn to develop, run, and test basic computer programs. Topics include data abstraction, data storage, introduction to object oriented programming, development of computer algorithms, and graphical user interfaces (GUIs). The course will culminate in the creation of a student developed project, such as a digital game or a physical computing project. Students will also have the opportunity to learn to use open source computers, such as Raspberry Pi, and use them to implement physical computing projects. No programming experience is required or expected.

## Technology Courses

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### **3805 Computer Science Fundamentals (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

Computers are a part of every career. Students will be introduced to the breadth of the field of computer science through an exploration of engaging topics. The course will instruct students in the computational practices of interface design, algorithm development, problem solving, web pages creation, data analysis, computer programming, and societal and ethical issues within the context of problems that are relevant to today's students.

### **3806 Technology Leadership Training (1 semester / 0.25 credit)**

- *May earn 0.5 credit with passage of certification exam.*
- *\$50 course material fee.*

**Prerequisites:** Sophomore, junior, or senior with department approval. Minimum 2.0 GPA.

Technology Leadership Training aims to expose students to IT skills and careers through practical, hands-on experiences. Students will complete training and gain Help Desk Level 1 skills. Tasks will include interacting with clients (faculty and students), and assisting members of the IT staff with troubleshooting software and hardware issues. Time will also be given for students to work towards a Test Out IT certification. Certification track will be determined by student interest and department recommendations. A pass/fail grade will be assigned based on meeting established weekly goals. Completing a certification is optional, however test fees will be covered for students who complete the necessary prep work. Obtaining certification qualifies students to be considered for paid summer IT work at St. X when available.

### **3945 AP Programming in Java - Fall (1 semester / 0.5 credit)**

**Prerequisites:** Open to juniors and seniors with department approval.

[\(click for video description\)](#)

This course will introduce students to object oriented programming and the Java language, one of the most used programming languages in the world. Students will learn about and design classes, methods, and interfaces. The use of primitive and structured data types and various control structures will be studied. This is a hands-on course that devotes a significant amount of class time to discussing algorithms and writing code. Students will also be exposed to using Git for version control and working on a Linux style command line. The course is recommended for future computer science, science, or engineering majors but coding is a useful skill that is applicable in a wide variety of careers. Students who take this course and 3946 will be prepared to take the AP Computer Science A College Board exam.

### **3946 AP Data Structures in Java - Spring (1 semester / 0.5 credit)**

**Prerequisites:** Minimum of a C in 3945.

[\(click for video description\)](#)



## Technology Courses

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This course builds on the skills gained in 3945 and will investigate the concept of data structures using the Java language. A significant amount of time will be spent on intermediate topics like inheritance, arrays, lists, and collections. More advanced topics like recursion, search & sort algorithms,

complexity analysis (big-O), multi-threading, and sockets will also be discussed. A review for the AP Computer Science A College Board exam will be conducted.

### **3947 AP Computer Science Principles 1 - Fall (1 semester / 0.5 credit)**

**Prerequisites:** Open to sophomores, juniors, and seniors with department approval.

[\(click for video description\)](#)

This course introduces students to the foundational concepts of computer science. In the first semester, students will cover the principles of problem analysis, abstraction, binary logic, CPU's, user interfaces, computer networks, algorithms, and programming. These concepts will be explored through a combination of block and text based coding, with a primary focus on the Microsoft MakeCode platform. Students must also enroll in 3948 to take the AP Computer Science Principles College Board exam.

### **3948 AP Computer Science Principles 2 - Spring (1 semester / 0.5 credit)**

**Prerequisites:** A minimum of a C in 3947.

[\(click for video description\)](#)

This is the second semester of the AP Computer Science Principles course. Students will use the skills learned in the first semester to build their own computing artifact for the AP digital portfolio as they become more proficient with programming in blocks, JavaScript, or Python on the Microsoft MakeCode platform. Additional principles of problem analysis, data analysis, algorithms, cybersecurity, data compression, and impacts of computing on society will be further explored. Students will complete the College Board required portfolio and prepare to take the AP Computer Science Principles College Board exam.

## Science Courses

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### **4111 Honors Biology (2 semesters / 1 credit)**

**Prerequisites:** Placement test score and teacher recommendations are used to determine level.

This is a general biology class for students who can maintain the advanced pace that accompanies an honors schedule. This course covers molecular, cellular, and systematic aspects of Biology. Topics include atomic chemistry, biochemistry, cells, cell functions (including photosynthesis, cell respiration, and protein synthesis), cell division (mitosis, meiosis), genetics, taxonomy, evolution, microorganisms, botany, zoology, and ecology. The course will develop lab and data interpretation skills which will be built on as they advance to other science classes during high school. Grades for the class are based on homework, labs, quizzes, and tests. Students should expect to study 30 minutes each night.

### **4113, 4115 Biology (2 semesters / 1 credit)**

**Prerequisites:** Placement test score and teacher recommendations are used to determine level.

This course is designed for the student who wishes to learn the major themes of biology. Topics include the scientific method, chemistry of life, cell structure and function, genetics, evolution, natural selection, and ecology. This is a lab course and students will learn basic lab techniques including the proper use of a compound light microscope. The goal of this course is to provide the students with a good foundation in the life sciences and to improve their science reasoning skills. Students are expected to study each night.

### **4117, 4119 Biology (2 semesters / 1 credit)**

**Prerequisites:** Placement test score and teacher recommendations are used for placement.

This course is a laboratory based course designed for students who wish to learn the basic principles of Biology. Topics include cells, animal and plant processes, genetics, and reproduction. The scientific inquiry process is integrated throughout each unit. As students progress, they become able to solve increasingly more complex inquiries. The goal is for students to master the art of problem identification, hypothesis formation, and organizing and interpreting data. Students should expect to perform frequent lab experiments.

### **4227, 4229 Integrated Physical Science (IPS) (2 semesters / 1 credit)**

**Prerequisites:** Sophomore and 4117 or 4119.

This course covers basic principles of science centered on the atomic model of matter in a hands-on, laboratory centered, inquiry based approach. Laboratory skills and scientific reasoning skills are emphasized. Basic math skills are essential for success in this course. Students can expect to do 6-8 laboratory experiments each quarter. This course will help prepare the student for successful laboratory work in chemistry.

### **4321 Honors Chemistry (2 semesters / 1 credit)**

**Prerequisites:** Sophomore with a minimum of a B in Math 3211 or 3213, as well as 4111, and department approval.

This course is designed for honors science students as a preparation for college science courses. Emphasis in the course is placed on experimentation, observation, and intuitive reasoning. Topics

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include matter and energy, atomic structure, radioactivity, periodicity, bonding, gas laws, solutions, acids, and bases. This course will prepare students to take AP Chemistry and/or college chemistry. Students should expect to study 30 minutes each night.

### **4335 Chemistry (2 semesters / 1 credit)**

**Prerequisites:** Sophomore with a minimum of a B- in Biology and current math class or department approval, or, junior standing, completion of 4227 or 4525 and concurrent registration in Algebra 2.

This course is designed for the academic student who wishes to learn the basic concepts of chemistry. It is a comprehensive college preparatory course that covers a broad range of topics including atomic structure, classification of matter, nuclear chemistry, the periodic system, chemical bonding, chemical composition, chemical reactions, stoichiometry, the state of matter including the gas laws, and an introduction to solution chemistry with an emphasis on solutions of acids and bases. The goal of this course is to provide students with a balanced combination of theories, practical applications, problem solving skills, and laboratory work. Chemistry requires a significant practice of skills and reviewing of topics outside of class. Students should expect 20-30 minutes of homework most nights.

### **4337, 4338 Chemistry (2 semesters / 1 credit)**

**Prerequisites:** Junior and completion of 4227, 4229, or 4525.

This course concentrates on the fundamental principles of chemistry and problem solving techniques. This course will elaborate on many concepts that students learned in IPS. Topics include classification of matter, atomic structure, the periodic table, molar conversions, chemical bonding and balancing equations. This is a lab based course designed to improve students' analytical skills and problem solving abilities. Students should expect 20 minutes of homework most nights.

### **4432 Honors Physics (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with a minimum of a B in Honors Chemistry and honors math with department approval.

This course is designed for students who have demonstrated above average ability in math and science and wish to learn about the physical world. This course covers the fundamental laws of physics including linear motion, vectors, Newton's laws of motion, momentum, energy, waves, sound, light, electrostatic fields and forces, simple DC circuits, and magnetism. The class utilizes a college-level textbook. Although the pace is somewhat slower than a typical college physics course, it will prepare students to take college physics. In order to be successful in this course the student must have strong reasoning and mathematical skills, and be willing to complete daily problem sets in addition to labs and tests.

### **4445 Physics (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior, 4335, and department approval.

This course is designed for the student who seeks an overview of the fundamental principles of physics. This course will prepare students for college by focusing on problem solving and data

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analysis skills. Topics include measurement and conversions, motion, forces, work, energy, power, momentum, waves, sound, light, electricity, and magnetism. Students in this course can expect 20-30 minutes of homework most nights. Homework consists of working practice problems and responding to conceptual text readings. Assessments for this course include homework, lab reports, and tests.

### **4446 Honors Physics 2 (2 semesters / 1 credit)**

**Prerequisites:** Senior, minimum of a B in 4445, and department approval.

This course is designed for students who have demonstrated above average ability in math and science, and wish to learn about the physical world. This course covers the fundamental laws of physics including linear motion, vectors, Newton's laws of motion, momentum, energy, waves, sound, light, electrostatic fields and forces, simple DC circuits, and magnetism. The class utilizes a college-level textbook, although the pace is somewhat slower than a typical college physics course, it will prepare students to take college physics. In order to be successful in this course the student must have strong reasoning and mathematical skills, and be willing to complete daily problem sets in addition to labs and tests. This course meets concurrently with Honors Physics 4432.

### **4447 Applied Physics (2 semesters / 1 credit)**

**Prerequisites:** Senior with 4337 or 4338.

The course is designed for students who want an overview of how the fundamental ideas of physics play a role in their everyday lives. Topics studied will reflect student needs and interests, and may include motion, forces, electricity, energy, and magnetism. In addition to these topics, a goal of this course is to teach students fundamental reasoning skills that will be useful in their future careers. This course involves frequent investigative activities. Students can expect 15 minutes of homework 2-3 nights a week along with necessary quizzes and tests.

### **4525 Environmental Science (2 semesters / 1 credit)**

**Prerequisites:** Senior with completion of or concurrent enrollment in Physics. Otherwise, department approval is required.

[\(click for video description\)](#)

This course is designed for the student who wants to understand the relationship between humans and the environment. Topics include Earth systems, ecology, environmental change, water, agricultural issues and soil, energy, mining, pollution, disasters, and extreme earth events such as volcanic eruptions, weather, and earthquakes. Students will participate in hands-on projects, laboratory activities, and critical thinking case studies (data interpretation).

### **4541 Honors Human Anatomy and Physiology (2 semesters / 1 credit)**

**Prerequisites:** Senior, completion of or concurrent enrollment in 4432.

Same as 4545 but this course is designed for the above average student who wants a more in-depth and detailed look at the body systems. This course will highlight diseases, disorders, and injuries of the human body and would be a good science elective for students who want to pursue a career in the

## Science Courses

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medical profession. This course assigns questions and outside reading along with quizzes or tests weekly. Dissections of a fetal pig, cow's heart, sheep eyes, and brain are included in this course.

### **4545 Human Anatomy and Physiology (2 semesters / 1 credit)**

**Prerequisites:** Senior, Physics, or concurrently with Physics.

This course is designed for the student who wants to learn about the human body. The structure and function of the human body is studied along with the location and physiology of each system. This class would be a good science elective for students who want to pursue a career in the medical profession. This course assigns questions and outside reading along with quizzes or tests weekly. Dissections of a fetal pig, cow's heart, sheep eyes, and brain are included in this course.

### **4645 Forensic Science (1 semester / 0.5 credit)**

**Prerequisites:** Senior, Physics, or concurrent registration in Physics with department approval. [\(click for video description\)](#)

This course will familiarize students with basic principles and uses of forensic science in crime scene investigations. Topics covered will include forensic anthropology, ballistics, entomology, physical and trace evidence, and serology. This course will introduce basic applications of biological, chemical, physical, medical, and behavioral sciences along with questions of evidence and law. By the very nature of this class, the content will not be "G" or "PG" rated. We will be discussing different manners of death and assaults. This course will give students a basic overview of the applications of traditional science classes and how they are used in a court of law. Students are expected to complete a variety of projects over the course of the semester. All students are required to take the final exam. Students will be required to stay after school one day to observe a simulated crime scene, record data and collect evidence. Students will complete lab tests to determine the culprit of the crime and create a reconstruction report with lab data as supporting evidence.

### **4745 Engineering: Principles & Practice (1 semester / 0.5 credit)**

**Prerequisites:** Physics or concurrent registration in Physics and 3333 or any precalculus course.

This course provides students with a solid introduction to the study of engineering. It will explore different engineering disciplines, such as mechanical, electrical, and civil. Students will also be exposed to the process of engineering problem solving. Much of the course will be project-oriented, with students working in groups on various engineering-type problems. Presentation of results will be a point of emphasis because the ability to communicate is a vital component of an engineer's work.

### **4746 Engineering 2 (1 semester / 0.5 credit)**

**Prerequisites:** 4745.

The structure will be similar to 4745, but the projects will be longer, more challenging, and more sophisticated. When possible and practical, local/ state engineering competitions will be included within the scope of the course. Projects will continue to follow the general outline of research, design, and fabrication. Students will be exposed to the process of engineering problem solving, and will use

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computers to refine and optimize designs. Students will work both alone and in groups on the various projects. Presentation of results will be a point of emphasis because the ability to communicate is a vital component of an engineer's work.

### **4845 Exercise Physiology (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

[\(click for video description\)](#)

This course will develop students' understanding of the science involved with the design and implementation of a holistic strength and conditioning program. This class would be a good science elective for those who enjoy exercise and physical activity and/or will pursue further study in a health science related field. Topics covered will include: anatomy and physiology of the musculoskeletal, nervous, cardiovascular, and respiratory systems; nutrition and bioenergetics; strength and conditioning program design; speed and agility training; and exercise technique.

### **4899 STEAM Capstone (1 semester / 0.5 credit)**

**Prerequisites:** Open to Seniors with departmental approval (application required).

This course offers students the opportunity to design a personalized educational experience centered around their interests and abilities. With guidance from the instructor, participating students will develop a significant cross-curricular project/activity that allows them to explore their personal interests while applying their knowledge to authentic tasks. Potential activities might include (but are not limited to) research/design projects, internships, product development (including business/ marketing plans), app development, and research projects for entry in the Louisville Regional Science and Engineering Fair. Students in this course must be highly motivated and able to work independently. Participants will be selected based on academic history and prior coursework.

### **4941 AP Biology (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 4111, 4321 or 4322, and 4432 (concurrently if junior), and department approval.

[\(click for video description\)](#)

This course is a college-level class designed for students who want to gain in-depth knowledge of biological principles. Topics include cell structure and function, cellular energetics, cell communication, heredity, gene expression and regulation, natural selection, and ecology. Major emphasis is given to inquiry-based labs. This course prepares students to take the AP Biology College Board exam. Outside reading and assignments are required for this class.

### **4942 AP Chemistry (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with a minimum of a B+ in 4321 and department approval.

This course is designed for the gifted chemistry student who expects to earn college credit. This course covers the structure of matter, states of matter, and types of reactions. Emphasis is placed on bonding, gas laws, acid-base reactions and equilibrium. Basic college experiments are an essential part of this course. This course prepares students to take the AP Chemistry College Board exam.



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Students are expected to spend approximately 30 minutes of study each night in addition to homework. Typed lab reports of several pages are required for each experiment.

### **4943 AP Physics C (2 semesters / 1 credit)**

**Prerequisites:** Minimum of a B in 4945 and concurrent registration in AP Calculus BC. (AP Calculus AB may be substituted with science department approval).

This college-level course is designed for gifted students who have demonstrated superior ability in science and math. It will help prepare students who are interested in pursuing engineering, physics, medicine, and other science and math degrees in college. The class covers two topics in detail: classical mechanics (motion, forces, energy, momentum, rotation, gravity, and SHM) and electricity and magnetism (electric and magnetic fields and forces, electric potential, simple circuits, and electromagnetic induction). Students enrolled in this course will utilize the knowledge they gained in AP Physics 1, and apply calculus principles whenever possible to solve high-level problems. This course prepares students to take the AP Physics C College Board exam. The student is expected to complete daily homework assignments and design their own lab methods (when appropriate), in addition to tests at the end of each section.

### **4944 AP Environmental Science (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior. Minimum of a B in 4111, 4321 or 4322, and 4432 (concurrently if junior), and department approval.

This is a college-level course designed for honors students who want to study the environment and human impact on the environment. Major areas of study include the scientific method and its application, interdependence of the biosphere, human interaction with the environment, and environmental disasters and their results. The goal of this course is to prepare students to take the AP Environmental Science College Board exam. Students are expected to spend approximately 30 minutes of study each night in addition to homework that is assigned. Laboratory work occurs weekly.

### **4945 AP Physics 1 (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior. Minimum of a B in 4321 and honors math with department approval.

This course is an algebra-based, introductory college-level physics course. Students cultivate their understanding of the physical world as they explore the following topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque, rotational motion and fluids. Through inquiry-based learning, students will develop scientific critical thinking and reasoning skills. It is designed for students who have demonstrated exceptional ability in math and science, and who are interested in pursuing engineering, physics, medicine, and other math or science degrees in college. This course prepares students to take the AP Physics 1 College Board exam. The student is expected to complete daily homework assignments and design their own lab procedures (when appropriate). Juniors who successfully complete this course may move on to 4943.

## Social Studies Courses

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### **5111 Honors World Geography (2 semesters / 1 credit)**

### **5113, 5115, 5117 World Geography (2 semesters / 1 credit)**

**Prerequisites:** Placement test score and teacher recommendations are used for placement.

Making use of the “Five Themes of Geography,” students will explore the various cultural and physical regions of the earth. Map skills are emphasized. The course’s goal is to provide students with a more thorough understanding of their world and increase skills in note-taking, reading comprehension, and critical thinking. Students should expect nightly reading, study and/or written homework. A research project is required. The honors level moves at a more rapid pace.

### **5119 World Geography (2 semesters / 1 credit)**

**Prerequisites:** Concurrent enrollment in English 1119.

The course will focus on the “Five Themes of Geography” as they apply to the United States and various world regions. The goal of the course is to acquaint the student with the geography and culture of his own country and of other regions of the world. The student can expect to have reading assignments from the textbook, complete worksheets, and prepare an occasional research assignment.

### **5221 Honors World Civilization (2 semesters / 1 credit)**

**Prerequisites:** Placement in honors English and department approval.

### **5223, 5225, 5227, 5229 World Civilization (2 semesters / 1 credit)**

**Prerequisites:** Placement by department.

The course is a survey of world history beginning with the ancient river valley civilizations and concluding with the 20th century. Emphasis will be given to more recent, western history. A goal of the course is a greater appreciation of the people and events that have shaped world history. Students should expect nightly reading, study and/or written homework. A research project is required. The honors level moves at a more rapid pace.

### **5331 Honors United States History (2 semesters / 1 credit)**

**Prerequisites:** Junior with department approval.

### **5333, 5335, 5337, 5338 United States History (2 semesters / 1 credit)**

**Prerequisites:** Placement by department.

This course follows a chronological approach beginning with the colonial period and continuing to the present day. The course will build on the student’s skill level of examining and synthesizing historical material, the interpretation of data, charts, and maps, and the examination and analysis of primary source material. Particular emphasis will be given to essay writing. Students will be required to read one historical novel and complete a research project. Students should expect nightly reading, study, and/or written homework. The honors course moves at a more rapid pace.

### **5443 Philosophy (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior in Level 5 English or higher.

This course is intended for the student interested in the history and major branches of western

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philosophy. Philosophy is a rational inquiry seeking answers to humans' basic questions. The course begins with the birth of philosophy in ancient Greece and concludes with major philosophical schools of the 20th century. Students should expect discussion of abstract ideas. A goal of the course is to interest students in continuing the study of philosophy in college and beyond.

### **5445 United States History - 1945 to present (1 semester / 0.5 credit)**

**Prerequisites:** Senior with completion of U.S. History.

[\(click for video description\)](#)

This course is intended for the student who has an interest in more recent American history. Particular attention will focus on the Cold War, civil rights, the Vietnam War, and cultural and economic changes from decade to decade. The course seeks to instill in the student a greater appreciation for the many facets of the American experience.

### **5446 History of Rock and Roll (1 semester / 0.5 credit)**

**Prerequisites:** Open to sophomores, juniors, and seniors.

[\(click for video description\)](#)

This course covers the development of rock and roll from influential blues to rock's official beginnings in the 1950s up through contemporary styles until around 2000. Genres covered will include rockabilly, Motown and Stax, the "British Invasion," soul music, folk-rock, protest songs, country rock, hard rock, progressive rock, metal, glam rock, punk rock, new wave, synthpop, grunge, alternative rock, rap, hip-hop, and other styles. Cultural events that influenced the music will also be covered (e.g., the Civil Rights movements, the Vietnam War, the launch of MTV, the cassette, Band Aid, fundraising concerts like Live Aid, the Parents Music Resource Center, and the technology explosion. From Springsteen to the Stones, from James Brown to The Jam, from Fats Domino to Fleetwood Mac, we will cover them.

### **5447 African American Studies (1 semester / 0.5 credit)**

**Prerequisites:** Open to sophomores, juniors, and seniors.

This elective course will provide an overview of African and African American history and culture. The course will examine the accomplishments and struggles of people of African descent. Topics include but are not limited to major events, persons, and issues spanning the period from historic African heritage to present Black history events. Through a largely, but not exclusively, chronological approach, this course will emphasize how African, African American, and Black people have worked to determine the trajectory of their own lives while navigating extensive challenges to freedom, advancement, and prosperity. This course will allow for perspective on how African Americans forged identities and culture that have shaped our nation.

### **5545 American Government (1 semester / 0.5 credit)**

**Prerequisites:** Senior. Students enrolled in 5942 may not enroll in this course.

This course is intended for the student who has an interest in the American political system. It allows the student to explore the executive, legislative, and judicial branches of national, state, and local governments. Among the topics considered are the Constitution, role of the presidency, interest groups

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and political parties, and voting behaviors. The course seeks to provide students with information needed to fulfill their role as active citizens.

### **5546 Law and Justice (1 semester / 0.5 credit)**

**Prerequisites:** Open to all sophomores, juniors, and seniors.

[\(click for video description\)](#)

This elective course will help students understand the historical and constitutional foundations of our nation's laws. It's a practical law course that prepares them for the larger world, whether they go into law, business, medicine, government, or most any other profession. Students will learn about their rights and responsibilities as citizens and how to plan inquiries, gather evidence, draw logical conclusions, and articulate reasonable action steps that can solve problems and strengthen communities. Course features include numerous guest speakers and role-playing trial experiences. The curriculum was developed over 50 years ago at Georgetown University Law School and has been taught nationwide and around the world.

### **5645 Global Issues (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

This course is intended for the student who has an interest in national and world affairs. Driven by current events, students will examine what is in the news with special emphasis on background and implications. The course seeks to provide students with information to examine the trends that shape the 21st century.

### **5745 Psychology (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

This course is intended for the student who has an interest in the working of the human mind and resulting behaviors. It presents the fundamentals of psychology while exploring the latest research and discoveries. The course seeks to develop in the student the social science and psychology skills that help him understand the thinking and behavior of people around him.

### **5845 Economics (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

This course is designed for the student who wants to begin the study of economics. Topics include basic economic theory, the structure and function of the American free enterprise system, and the role of government in regulating economic theory. Both micro- and macroeconomics issues will be addressed. The course seeks to provide students with the information needed to make rational economic choices.

## Social Studies Courses

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### **5921 AP World History (2 semesters / 1 credit)**

**Prerequisites:** Sophomore with 5111 and department approval.

[\(click for video description\)](#)

This full-year course explores the expansive history of the human world starting with the year 1000AD and moving to the present day. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical connections; and utilizing reasoning about comparison, causation, and continuity and change over time. This course builds on an understanding of cultural, institutional, and technological precedents that, along with geography, form a foundation for modern history. Students should expect regular study/reading, work with primary sources, and research-based assignments. This course prepares students to take the AP World History College Board exam.

### **5931 AP United States History (2 semesters / 1 credit)**

**Prerequisites:** Junior with 5221 and department approval.

[\(click for video description\)](#)

This course is designed for the honors student who is highly motivated and ready for introductory college work. The student will take a chronological journey which follows the evolution of American democratic society from the colonial era to the recent past. Students will be given a chance to focus on independent reading, use of primary sources, historical research, and classroom note-taking. A goal of this course is to expose students to American history – the good and the bad – in order to help them discover how actions taken and decisions made have helped create the society we live in today. Students are expected to read regularly from a college-level U. S. History textbook and review notes nightly. Students will also do outside research which will culminate in the writing of several papers. This course prepares students to take the AP United States History College Board AP exam.

### **5941 AP European History (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with department approval.

This course is designed for students prepared for introductory college work who have a special interest in history. It surveys European history from the Renaissance to the beginning of the 21st century. The approach is chronological with emphasis on political and diplomatic history although the course will also cover economic, cultural, and social history. Students should expect regular study/reading, work with primary sources, and research based assignments. This course prepares students to take the AP European History College Board exam.

### **5942 AP United States Government and Politics (1 semester / 0.5 credit)**

**Prerequisites:** Senior with department approval.

This course is a college level introduction to the theory and practice of our system of government. The course begins with an examination of the founding principles and constitutional underpinnings of the American system of government, followed by the operations of its formal branches of government, as well as the paths open to citizen participation. It concludes with a study of civil liberties, civil rights, and public policy. The course aims to prepare students to act as informed and responsible citizens by relating case studies and current events to course content. Students should expect regular

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study/reading, writing, and research-based assignments. This course prepares students to take the AP United States Government and Politics College Board exam.

### **5943 AP Psychology (2 semesters / 1 credit)**

**Prerequisites:** Junior or senior with department approval.

[\(click for video description\)](#)

This course will introduce students to the systematic and scientific study of the behavioral and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields of psychology. This course will provide students with the opportunity to learn about the field of psychology through in-depth study, discussion, and learning activities. This course prepares students to take the AP Psychology College Board exam.

### **5944 AP Comparative Government (1 semester / 0.5 credit)**

**Prerequisites:** Senior, 5545 or 5942, and department approval.

This course introduces the students to fundamental concepts used by political scientists to study the processes and outcomes of politics in a variety of countries. China, Great Britain, Mexico, Nigeria, Russia, and Iran are the core countries studied. It aims to illustrate the rich diversity of political life, and to communicate to students the importance of global, political, and economic changes. This course prepares students to take the AP Comparative Government and Politics College Board exam.

### **5945 AP Human Geography (2 semesters / 1 credit)**

**Prerequisites:** Senior, with 5335 or higher and approval of current social studies teacher.

[\(click for video link\)](#)

AP Human Geography introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. It is a yearlong course that focuses on the distribution, processes, and impacts of human populations on the planet. The course is divided into seven units of study, covering a variety of topics including population, migration, culture, language, religion, ethnicity, political geography, economic development, industry, agriculture, and urban geography. This course will focus on taking a critical look at the global relationships between human beings and the world in which they live. In each unit, the class will work with various demographic models (i.e. Demographic Transition), as well as investigate case studies that explore the human experience from global, regional, and local perspectives. This is a fascinating class that will introduce you to the spatial world around you and its influences on human interaction and the environment. It is, however, a rigorous course, as is the case with all college-level AP courses. This course prepares students to take the AP Human Geography College Board exam.



## Social Studies Courses

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**NOTE: 5946 AP Macroeconomics and 5947 AP Microeconomics are offered on a two-year rotation. The upcoming course rotation is:**

<b>2024-25</b>	<b>5947 AP Microeconomics</b>
<b>2025-26</b>	<b>5946 AP Macroeconomics</b>

### **5946 AP Macroeconomics (2 semesters / 1 credit)**

**Prerequisites: Level 3 English or higher and completion of Algebra 2.**

Next offered during the 2025-26 school year. This is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. Students will learn why and how the world economy can change from month to month, how to identify trends in our economy, and how to use those trends to develop performance measures and predictors of economic growth or decline.

This course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students will learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. This course prepares students to take the AP Macroeconomics College Board exam; and for further study in business, political science, and history.

### **5947 AP Microeconomics (2 semesters / 1 credit)**

**Prerequisites: Level 3 English or higher and completion of Algebra 2.**

AP Microeconomics is an introductory college-level microeconomics course. Students cultivate their understanding of the principles that apply to the functions of individual economic decision-makers by using principles and models to describe economic situations and predict and explain outcomes with graphs, charts, and data as they explore concepts like scarcity and markets; costs, benefits, and marginal analysis; production choices and behavior; and market inefficiency and public policy.

## Fine Arts Courses

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### Acting

#### **6460 Honors Acting 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work. Students with prior acting training or experience can enroll directly into 6472.

**-OR-**

#### **6465 Acting 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students who have had little (or no) acting experience. Students with previous acting training or experience can enroll directly into 6472.

This introductory course is designed for students with little or no previous theater experience, allowing these students to develop acting skills that can be used in theater as well as in other areas of their lives. There are no written tests or quizzes. Since most of the acting exercises are group activities, there is very little homework. All rehearsals and performances take place during class time. Most weeks will also include an improv unit to help students develop creativity, quick thinking, and communication skills. Honor students will have more complex assignments.

**NOTE:** *Honors Advanced Acting courses are offered on a three-year rotation. The upcoming course rotation is:*

<b>2024-25</b>	<b>6472 Honors Advanced Acting: Scene Study</b>
<b>2025-26</b>	<b>6473 Honors Advanced Acting: Creative Dramatics</b>
<b>2026-27</b>	<b>6471 Honors Advanced Acting: Workshop</b>

#### **6471 Honors Advanced Acting: Workshop (1 semester / 0.5 credit)**

**Prerequisites:** Previous acting experience.

Next offered in the 2026-27 school year. As a class, students will create at least two original plays, one an adaptation and one a concept show using ideas from the class. Students will also explore ways improvisation can be turned into performances. There are no written tests or quizzes; grades are earned through acting activities and self-reflections. The final project for the course will be a performed show. All rehearsals take place during class time, although the final performance may be held outside of class time.

#### **6472 Honors Advanced Acting: Scene Study (1 semester / 0.5 credit)**

**Prerequisites:** Previous acting experience.

[\(click for video description\)](#)

Offered in the 2024-25 school year. Students will perform scenes and short plays—both scripted and improvisational. Students will explore styles of acting, character work, movement, vocal techniques, script interpretation, dramatic dynamics, and improvisation. There are no tests or quizzes; grades are earned primarily through participation and self-reflection.

#### **6473 Honors Advanced Acting: Creative Dramatics (1 semester / 0.5 credit)**

**Prerequisites:** Previous acting experience.

Next offered in the 2025-26 school year. Students will use acting techniques to create a wide range of original performances including techniques related to creating original plays, schoolwork, community

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service, recreation, and psychology. Students will learn how to use process-centered improvisations in their lives and work. They will also explore the basics of directing and creating an acting troupe. There are no tests or quizzes; grades are earned primarily through participation and self-reflection.

### **6464 Honors Improvisational Theatre (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work.

**-OR-**

### **6466 Improvisational Theatre (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

In this course students work collaboratively, performing without the use of a written script. As a result of this course, students will not only develop improvisational acting skills, but they will also improve their ability to think quickly, communicate easily, collaborate, and to create presentations. There are no tests or quizzes; grades are earned primarily through participation and self-reflection. Honors students will complete additional projects.

### **6467 Honors Improvisational Theatre 2 (1 semester / 0.5 credit)**

**Prerequisites:** 6464 or 6466.

Students who've mastered the basics of improvisational theater will further their improvisational skills as well as exploring additional forms of improv. Long-form improvisation will be explored in more depth as well as applications of improv in the business and professional world. There are no tests or quizzes; grades are earned primarily through participation and self-reflection.

### **6560 Honors Directing (1 semester / 0.5 credit)**

**Prerequisites:** Two previous acting courses.

Students will develop their theater directing skills by working as a director in conjunction with an Acting class. Students will learn to analyze a short play and direct it all the way through final performance as well as working with improv and other acting skills.

## Creative Writing

### **6450 Honors Creative Writing 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior prepared to do honors-level work.

**-OR-**

### **6455 Creative Writing 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

Every student has writing ability, and this class frees students to write in an individual way by creating a variety of short written pieces. Most of the time in class will be spent writing. There are no lectures, written tests, or quizzes; grades are earned by completing creative writing assignments. Instead of a traditional final exam, students will create a portfolio of their writing. As well as expanding their powers of creative writing, students will also increase their power in both written and spoken communication in all aspects of their lives. Honors students will explore additional forms of writing.

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### **6451 Honors Creative Writing 2 (1 semester / 0.5 credit)**

**Prerequisites:** 6450 or 6455.

Students will design their own creative writing projects with the teacher acting as their writing coach. Students may work on projects such as a novel, play or screenplay, or a variety of shorter pieces. The course is structured on the workshop model: most of the actual time in class will be spent writing. There are no written tests or quizzes; grades are earned by completing creative writing assignments. Instead of a traditional final exam, students will create a portfolio of their writing.

### **6452 Honors Creative Writing 3 (1 semester / 0.5 credit)**

**Prerequisites:** Minimum of a B in 6451.

This course is designed for advanced Creative Writing students who want to develop their distinctive individual voice by working with a genre of their choice. While creating one or more major works, students polish their individual writing style. Students will also create query letters and other professional documents to enable them to explore the possibility of publishing their work. Instead of a traditional final exam, students will create a portfolio of their writing.

### **6453 Honors Creative Writing 4 (1 semester / 0.5 credit)**

**Prerequisites:** Minimum of a B in 6452.

This course is for students who are seriously considering a professional career as a writer. Students will work on a single major project, coached by the instructor as well as exploring venues for publication. An annotated version of their final work will serve as their final exam.

## Digital Arts

### **6270 Honors Graphic Design 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, senior, or second semester freshman prepared to do honors-level work.

**-OR-**

### **6275 Graphic Design 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, senior, or second semester freshman.

[\(click for video description\)](#)

This course is designed for students with an interest in learning to create pictures and manipulate photos using computer art programs. Students will produce images with Adobe Illustrator and will alter and enhance photos in Adobe Photoshop. They will explore the basics of working with color and composition. The use of the vinyl cutter is taught in the Innovation Lab. Honors students will supplement their course work with additional research and analytical advertising projects.

### **6271 Honors Graphic Design 2 (1 semester / 0.5 credit)**

**Prerequisites:** Minimum studio grades of a B or higher in 6275 or 6270 and teacher approval.

[\(click for video description\)](#)

This course is designed for intermediate art students with an interest in learning commercial/advertising art. Students will develop multiple approaches to visual communication

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through creating brochures, logos, and layouts for magazines, books, and illustrations. Some projects will involve Innovation Lab materials. Using the Adobe CC Suite, students will hone their skills and apply this knowledge to graphic visual problems.

### **6272 Honors Graphic Design 3 (1 semester / 0.5 credit)**

**Prerequisites:** Minimum grade of B in 6271 and teacher approval.

[\(click for video description\)](#)

This course is designed for advanced art students with an interest in creating commercial/advertising art. Students will learn how to use and take digital pictures for artistic manipulation as well as product images for developing an ad campaign. Digital fine art images, digital advertising images, ad campaigns, and logo developments will be created. Some projects will involve Innovation Lab materials. Students will apply the previous two semesters of graphic knowledge to produce applicable finished designs for graphic communication. This course will prepare the student to create all forms of digital work that is print-ready for advertising and could incorporate work into the AP Studio Art: 2D Design portfolio.

### **6370 Honors Film Study 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior prepared to do honors-level work.

**-OR-**

### **6375 Film Study 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior.

This course is designed for students who want to deepen their understanding of film. They will learn to view a film on multiple levels. Grades are earned through reflections and film-related projects. There are no written tests or quizzes. Honors students will supplement their work with additional projects.

### **6371 Honors Film Study 2 (1 semester / 0.5 credit)**

**Prerequisites:** Completion of 6370 or 6375 and departmental approval.

[\(click for video description\)](#)

Students will deepen their ability to analyze films on multiple levels by focusing on two different film areas during the semester: genres, eras, directors, cinematographers, actors, or other areas of study such as the history of Black, Asian, or Latino films. Students will analyze 8-12 films each quarter, culminating in a presentation to Film 1 students. There are no tests or quizzes.

### **6380 Honors Filmmaking 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior or senior prepared to do honors-level work.

**-OR-**

### **6385 Filmmaking 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior or senior.

[\(click for video description\)](#)

This hands-on course is for students who want to learn more in-depth skills in audio and video production. Topics will include pre-production planning, videography, editing, audio, lighting, and basic

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special effects. This course will prepare the student to create and edit his own original films from start to finish. Students will create several types of short films. Some projects may require time outside of class for shooting and editing. This is primarily a project-based class. Honors students will complete additional projects and presentations.

### **6481 Honors Broadcasting (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior or senior prepared to do honors-level work.

**-OR-**

### **6486 Broadcasting (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior or senior.

[\(click for video description\)](#)

This course will give an overview of basic video, audio, and multimedia production, including producing short video segments. There will be an emphasis on broadcast journalism production. Students will gain skills both in front of and behind the camera. Students will also learn how to run live broadcasts in the Becherer Production Studio and will learn to produce both live newscasts and live sporting events. Work on WSTX and TSN is not required, but students will produce content for both WSTX and the Tiger Sports Network. Grades will be earned primarily through broadcast projects. Honors students will have a heavier workload.

### **6531 Honors iPhotography (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior prepared to do honors-level work.

**-OR-**

### **6535 iPhotography (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior.

In the 21st century, professionals in nearly all fields are expected to be able to take and use photographs to enhance their communication. In this course, students will learn the foundations for taking a spectacular photo and appreciating excellent photographs. Students will study the history of photography, including several modern photographers. Students do not need a digital camera for this course since both iPads and smartphones can take great photos. Students will learn composition as well as how to edit, mat, and display photos. Grades will be earned primarily through photography projects using the iPad and other digital equipment. Homework assignments include assigned reading and taking at least 10 photos a week. Honors students will create additional class presentations.

## Music

### **6041 Honors Guitar / Bass (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work. Students who already have experience playing guitar or bass should enroll in 6061.

**-OR-**

### **6045 Guitar / Bass (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

In this course, designed for beginners or those with limited experience playing guitar or bass, students



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will learn basics that can be applied to a variety of musical styles. Coursework includes developing instrumental technique, learning to read music, and improvisation. Students must furnish their own guitars or basses. Honors Guitar students will learn more advanced techniques.

### **6051 Honors Vocal/Instrumental Music 1 (1 semester / 0.5 credit)**

**-OR-**

### **6061 Honors Instrumental Music 1 (1 semester / 0.5 credit)**

**Prerequisites:** Previous Guitar/Bass or Percussion/Keyboard class or other music performance experience.

[\(click for video description\)](#)

This course is designed for students who have had some previous training in guitar, bass, keyboard, or percussion. Students will perform rock, folk, contemporary Christian, jazz, blues, and other present-day styles. They will perform at school and other locations in the Louisville area. Students playing guitar, bass, winds, brass, and classical string instruments will need to furnish their own instruments. Honors Vocal/Instrumental students will sing as well as play an instrument.

### **6052 Honors Vocal/Instrumental Music 2 (1 semester / 0.5 credit)**

**-OR-**

### **6062 Honors Instrumental Music 2 (1 semester / 0.5 credit)**

**Prerequisites:** 6051 or 6061.

[\(click for video description\)](#)

This course is designed for students who want additional practice with instrumental music. Students will perform rock, folk, contemporary Christian, jazz, blues, and other present-day styles. They will perform at school and other places in the Louisville area. Students playing guitar, bass, winds, brass, and classical string instruments will need to furnish their own instruments. Honors Vocal/Instrumental students will sing as well as play an instrument.

### **6053 Honors Vocal/Instrumental Music 3 (1 semester / 0.5 credit)**

**-OR-**

### **6063 Honors Instrumental Music 3 (1 semester / 0.5 credit)**

**Prerequisites:** 6052 or 6062.

[\(click for video description\)](#)

This course is designed for students who want to continue their studies in contemporary music and practice daily in an ensemble setting on guitar, bass, keyboard, percussion, classical strings, winds, or brass. Students will play more complex parts and more challenging improvisation as well as deepening their practice of rehearsal procedures. They will also complete advanced written work and presentations on advanced aspects of music. Honors Vocal/Instrumental students will sing as well as play an instrument.

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### **6054 Honors Vocal/Instrumental Music 4 (1 semester / 0.5 credit)**

**-OR-**

### **6064 Honors Instrumental Music 4 (1 semester / 0.5 credit)**

**Prerequisites:** 6053 or 6063.

[\(click for video description\)](#)

This course helps students advance to a level of playing suitable for college. Students will deepen their ability in contemporary music through daily practice on guitar, bass, keyboard, percussion, classical strings, winds, or brass. Students will serve as ensemble leaders and role models for less advanced students as well as producing college-level written work and presentations. Honors Vocal/Instrumental students will sing as well as play an instrument.

### **6070 Honors Percussion / Keyboard (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work. Students who have experience with playing drums or keyboard should enroll in 6061.

**-OR-**

### **6075 Percussion / Keyboard (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

Students will learn to play percussion or keyboard in a variety of contemporary musical styles including rock, folk, contemporary Christian, jazz, blues, and other present-day styles. Coursework includes learning to read music, transcribing by ear, improvisation, and developing instrumental technique. Honors students will complete more complex work and do more written work.

### **6071 Honors Percussion / Keyboard 2 (1 semester / 0.5 credit)**

**Prerequisites:** 6070 or 6075

This course is designed for students who want to expand their skills on percussion instruments. Students will learn intermediate skills on fundamental instruments of the percussion family: snare drum, the mallet-keyboard instruments (marimba, xylophone, vibraphone, bells), African and Brazilian percussion instruments, and various accessory instruments, along with music reading and ensemble skills. This course will give the student an increased understanding of rhythm and basic skills on a variety of percussion instruments. Students will perform in individual and ensemble settings.

### **6141 Honors Digital Music 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work.

**-OR-**

### **6145 Digital Music 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

This course is for students who want to learn about making music using digital technology. No previous experience is required. Students will learn to compose backing tracks, mix live sound, record live music, and make up beats. Students will work primarily with the GarageBand app on the iPad to make projects. Students could also work with other apps and technologies associated with

## Fine Arts Courses

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music-making in the 21st century. Honors students will complete additional research and music reviews.

### **6142 Honors Digital Music 2 (1 semester) 1/2 credit**

**Prerequisites:** Minimum of a B in 6141.

Topics in this project-based class will include composing music and developing musicianship through GarageBand with additional music styles, scales, chord progressions, rhythmic concepts, time signatures, and song forms. Students will also work with integrating other music apps into GarageBand.

### **6151 Honors Choral Music 1 (1 semester / 0.25 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work.

### **6152 Honors Choral Music 2 (1 semester / 0.25 credit)**

**Prerequisites:** 6151 or 6155.

### **6153 Honors Choral Music 3 (1 semester / 0.25 credit)**

**Prerequisites:** 6152.

### **6154 Honors Choral Music 4 (1 semester / 0.25 credit)**

**Prerequisites:** Approval of the instructor.

### **6155 Choral Music 1 (1 semester / 0.25 credit)**

**Prerequisites:** Open to all students. Cannot subsequently enroll in 6151.

This course is designed for students interested in singing. Students develop their ability to read music and sing as part of a male chorus. Students are required to participate in an extracurricular concert at the end of the semester. This course is an independent-study I-Period course that meets from 7:10-7:40 AM three mornings per week in the music room. Students who wish to audition for KMEA All-State Choir must be enrolled in the Choral Music class.

### **6951 AP Music Theory (2 semesters / 1 credit)**

**Prerequisites:** Training in vocal or instrumental music and the approval of the instructor.

[\(click for video description\)](#)

This course is designed for any serious music student who wants to get better at and have fun learning about music and how it is built. The course will start with the basics of reading, writing, and listening to music and progress to more advanced topics of harmony and musical structures. Topics include major and minor scales, modes, intervals, chords and chord progressions, sight singing, basic keyboard skills, harmonic analysis, basic composition techniques, and ear training (recognizing musical elements by ear). This course prepares students to take the AP Music Theory College Board exam. The course will cover many topics and students will learn in a variety of ways. Strong organizational skills and excellent behavior are a must. Studying music theory is like a combination of language and math. Some topics are very logical and concrete and some are more creative and open for interpretation.

## Fine Arts Courses

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### Visual Arts

#### **6241 Honors Visual Art Studio (1 semester) 1/2 credit**

**Prerequisites:** Open to all students prepared to do honors-level work.

**-OR-**

#### **6245 Visual Art Studio (1 semester) 1/2 credit**

**Prerequisites:** Open to all students.

This course is designed for students beginning or advancing in the study of art. Students learn the elements and principles of design as well as how these elements and principles occur throughout the history of art. This course will encourage a deeper appreciation of art and prepare the student to take any Level 2 Visual Art course. Students will create hands-on projects in drawing, painting, sculpture, collage, and other media as well as completing critical historical research. Honors students will supplement their course work with additional research and more complex problem-solving projects (this course replaces Introduction to Art).

#### **6131 Honors Technology Art Studio (1 semester / 0.5 credit)**

**Prerequisites:** Any previous Visual Art or Graphic Design course.

**-OR-**

#### **6135 Technology Art Studio (1 semester / 0.5 credit)**

**Prerequisites:** Any previous Visual Art or Graphic Design course.

This course is designed for the intermediate student. The tools available in the Innovation Lab (laser cutter and vinyl cutter) will be used to create and develop 2-dimensional and 3-dimensional artwork. Both the lab and art studio space will be used. Problem-solving, development, experimentation, and art skills are required for this class. The items created in the Innovation Lab will be developed, added to, and enhanced further in the art studio space. iPad apps will aid in the creation of items. This course will involve some lab time before and/or after school for printing. Honors students will supplement their course work with additional research and more complex problem-solving projects.

#### **6260 Honors Ceramics 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior, or senior prepared to do honors-level work.

**-OR-**

#### **6265 Ceramics 1 (1 semester / 0.5 credit)**

**Prerequisites:** Sophomore, junior or senior.

This course is designed for students with an interest in hand-building functional ceramics. Students will learn hand-building techniques such as pinch, coil, slab, and cylinder construction. Glaze application techniques with mid-fire glazes will be taught. This course will prepare the student to build functional pottery, learn glazing techniques, and construct projects from personal drawings. Honors students will supplement their course work with additional research and analytical projects.

#### **6261 Honors Ceramics 2 (1 semester / 0.5 credit)**

**Prerequisites:** Departmental approval.

This course is designed for advanced art students with an interest in wheel-built ceramics. Students will

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work with clay construction and glazing as well as practicing professional studio management techniques. Students will throw on the potter's wheel. Outside class time is required.

### **6262 Honors Ceramics 3 (1 semester / 0.5 credit)**

**Prerequisites:** Successful completion of 6261 and instructor approval.

This course is designed for Ceramic art students interested in making more advanced wheel-thrown/hand-built functional pottery. Students will learn to explore their personal talents and interests while working on the potter's wheel. Students will produce a minimum of eight works of art during the semester. Work outside of class is required to complete all assigned projects.

### **6280 Honors Drawing/Painting 1 (1 semester / 0.5 credit)**

**-OR-**

### **6285 Drawing/Painting 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

This course is designed for students who want to learn to draw and paint. Students develop drawing skills in the context of the elements and principles of design. They learn contour, perspective, portrait, landscape, and still life drawing. This course will prepare the student to develop visual communication skills to enroll in more advanced 2D and 3D courses. Students will create projects with a variety of drawing media and begin to explore painting. Sketchbook assignments will be given as well as outside drawing projects. Honors students will supplement their course work with additional research and analytical projects.

### **6281 Honors Drawing/Painting 2 (1 semester / 0.5 credit)**

**Prerequisites:** Successful completion of 6285 or 6280.

[\(click for video description\)](#)

This course is designed for advanced art students with an interest in drawing and painting. Students will learn to build on successes from their previous drawing/painting course. Students also learn acrylic and watercolor painting skills and techniques while deepening their understanding of the elements and principles of design. The focus of this semester is on "mixing media". Students will work on various drawing and painting projects with emphasis on mastering techniques. Projects will be longer and more advanced than those in earlier courses with serious commitments to developing a personal style. Students are expected to keep a sketchbook with assigned exercises in drawing.

### **6282 Honors Drawing/Painting 3 (1 semester / 0.5 credit)**

**Prerequisites:** Successful completion of 6281.

[\(click for video description\)](#)

This course is designed for advanced art students with an interest in exploring drawing and painting more intensely. With an emphasis on individual work, students will learn more advanced techniques in painting styles while continuing to hone their drawing skills. Students will focus on the use and illustration of "texture". Students will explore all types of paint applications including historical studies

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of famous artists. This course prepares students to advance to AP Studio Art: 2D Design and Drawing Portfolios.

### **6350 Honors Sculpture 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students prepared to do honors-level work.

**-OR-**

### **6355 Sculpture 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

This course is designed for students with an interest in 3-dimensional construction. Through assemblage, carving, and construction, students learn about the elements and principles of design. Students will build with foam, plaster, wire, and wood. Honors students will supplement their course work with research and analytical projects.

### **6351 Honors Sculpture 2 (1 semester / 0.5 credit)**

**Prerequisites:** Course and studio grades of B or higher in 6350 or 6355

This course is designed for advanced art students with an interest in 3-dimensional construction. Students will continue in their knowledge gained of the elements and principles of design from time spent in Sculpture 1 class through a variety of projects in 3-dimensional art forms. This course prepares students to enroll in AP 3D Design. Students explore 3-dimensional design through advanced projects.

### **6941 AP Studio Art: 2D Design (2 semesters / 1 credit)**

**Prerequisites:** Two semesters of a studio art course and teacher approval.

[\(click for video description\)](#)

This course is designed for highly advanced art students with an interest in pursuing art at the college level. The course focuses around the development of a sustained investigation (themed research) with a visual outcome of a completed AP portfolio. The 2D portfolio derives from design elements and principles of design. It can incorporate all mediums. The portfolio is submitted the first week of May and begins with summer challenges prior to the fall semester.

### **6942 AP Studio Art: Drawing (2 semesters / 1 credit)**

**Prerequisites:** Two semesters of a studio art course and teacher approval.

[\(click for video description\)](#)

This course is designed for highly advanced art students with an interest in pursuing art at the college level. The course focuses around the development of a sustained investigation (themed research) with a visual outcome of a completed AP portfolio. The Drawing portfolio derives from skills of mark-making in many various media. Your solid skills of drawing are further challenged in this college-level course. The portfolio is submitted the first week of May and begins with summer challenges prior to the fall semester.

## Fine Arts Courses

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### **6943 AP Studio Art: 3D Design (2 semesters / 1 credit)**

**Prerequisites:** Two semesters of a studio art course and teacher approval.

[\(click for video description\)](#)

This course is designed for highly advanced art students with an interest in pursuing art at the college level. Students will learn advanced techniques in 3D art. They will produce multimedia works of art on a college level. The course focuses on the development of a sustained investigation (themed research) with a visual outcome of a completed AP portfolio. The portfolio is submitted the first week of May and begins with summer challenges prior to the fall semester.

### **6950 AP Art History (2 semesters / 1 credit)**

**Prerequisites:** Sophomore, junior, or senior concurrently enrolled in an Honors or AP English or Social Studies course, or who is taking (or has taken) an advanced Visual Arts course.

This course is designed to provide the same benefits to secondary school students as those provided by an introductory college course in art history: an understanding and enjoyment of architecture, sculpture, painting, and other art forms within historical and cultural contexts. In this course, students examine major forms of artistic expression from the past, present, and a variety of cultures. They learn to look at works of art critically, with intelligence and sensitivity, and to articulate what they see or experience. No prior exposure to art history is required. Students who have done well in humanities, history, literature, or in any of the advanced studio arts are especially encouraged to enroll. This course prepares students to take the AP Art History College Board exam.



## Health/Physical Education Courses

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### **7055 Physical Education (2 semesters / 0.5 credit)**

**Prerequisites:** Required for all freshmen.

Physical Education offers a variety of individual and team activities to improve the aerobic endurance, muscular strength, muscular endurance, and flexibility of the individual student. Physical Education may be waived only with a signed physician's statement. The St. X PE uniform is required. This is a Pass/Fail course based on participation and effort, not athletic ability.

### **7056 Health Education (2 semesters / 0.5 credit)**

**Prerequisites:** Required for all freshmen.

This course is designed to provide information in such a way that it influences the student to take positive actions about his health. The major topics covered are fitness, nutrition, drug, alcohol and tobacco use and abuse, along with the circulatory, skeletal, and muscular systems. Also, mental health topics of character, self-esteem, depression, and anxiety are addressed. This is a graded course based on homework, quizzes, tests, and oral presentations.

### **7057 Strength & Fitness (1 semester) 1/2 credit**

**Prerequisites:** Sophomore, junior, or senior. Class size is limited to 24.

This course will develop students' basic knowledge and experience in a variety of strength techniques as well as other forms of exercise. Students will be prepared to perform many types of exercises safely and with correct technique. Students will also develop a basic understanding of different training methods, the correlation between nutrition and exercise, and the risks of steroid use. All students should increase their personal strength and fitness level through active participation in the class. This is a graded course based on participation, techniques displayed during workouts, and the completion of written assignments.

## Business/Technical Drawing Courses

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### Technical Drawing/CAD

#### **7145 Technical Drawing 1 (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

This is a drawing course, using both Mechanical Drawing and Computer Aided Drafting techniques, in which the student learns to communicate in technical and industrial terms. It provides the student with a broad background in all phases of mechanical and computer aided drawing. This course is especially beneficial to students interested in engineering, architecture, manufacturing, and construction careers. The course will teach the skills needed to enable students to create both working and schematic drawings. AutoCAD design software is utilized in this course.

#### **7146 Technical Drawing 2 (1 semester / 0.5 credit)**

**Prerequisites:** 7145 and teacher approval.

[\(click for video description\)](#)

This course is a continuation of Engineering Drawing 1 in which the student learns to communicate in technical and industrial terms. It provides the student with a broad background in all phases of mechanical and computer aided drawing. This course is especially beneficial to students interested in engineering, architecture, manufacturing, and construction careers. The course will teach the skills needed to enable students to create both working and schematic drawings. AutoCAD design software is utilized in this course.

#### **7156 Computer Aided Drafting (1 semester / 0.5 credit)**

**Prerequisites:** 7154 and teacher approval.

**NOTE: Only students who completed 7154 last year are eligible for this course.**

By using the AutoCAD System, students will be introduced to the concepts of the computer aided drafting equipment, terminology, and theory of operation. The course will teach the skills needed to enable students to create both working and schematic drawings.

#### **7157 Architectural Drawing (1 semester / 0.5 credit)**

**Prerequisites:** 7156 and teacher approval.

Students learn the fundamental principles of residential design and construction and will develop and draw an original design of a house of their choice. This house is a semester project. Any student thinking about architecture in college or who is just interested in general design should take this course.

#### **7158 3D Computer Aided Drafting (1 semester / 0.5 credit)**

**Prerequisites:** 7156 and teacher approval.

Students will expand upon their skills learned in 7156. The use of 3D printing technology will be used to create three dimensional objects that students will design using AutoCAD design software.

## Business/Technical Drawing Courses

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### Business

#### **7255 Accounting, Part 1 (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

[\(click for video description\)](#)

This course is designed to introduce students to the study of accounting. Students will learn how to record business transactions and complete simple financial statements. Students will be expected to read and study each night as well as complete accounting problems.

#### **7256 Accounting, Part 2 (1 semester / 0.5 credit)**

**Prerequisites:** Minimum of a C in 7255 and/or teacher approval.

[\(click for video description\)](#)

Topics to be covered include payroll, taxes, inventory, depreciation, uncollectible accounts, and others as time permits. Students will be expected to read and study each night, work accounting problems, and complete a simulation packet if available.

#### **7355 Finance and Investments (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

[\(click for video description\)](#)

This course is an introduction to personal money management and finance. Topics include personal income and taxes, budgeting, dealing with inflation, managing checking and savings accounts, life/auto/home insurance, mortgage and personal loans, credit cards, debit cards, personal credit ratings, investments, and other financial issues related to the adult world.

#### **7356 Business Administration (1 semester / 0.5 credit)**

**Prerequisites:** Junior or senior.

This course covers a wide range of general business topics while focusing on entrepreneurship, management, marketing, business ethics, and professional leadership skills. The student will also complete a CEO project, write a group business plan, and learn the important aspects of running a small business from leading industry CEOs.

#### **7555 Computer Applications (1 semester / 0.5 credit)**

**Prerequisites:** Open to all students.

[\(click for video description\)](#)

This course introduces Microsoft Office, the software most commonly used by colleges and the business world. In this hands-on course, students will learn word processing, spreadsheets, and presentation software. Comparisons to iPad software will be made (Pages, Numbers, and Keynote). A review of proper keyboarding techniques is included in this course.

## Business/Technical Drawing Courses

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### **7660 Core Learning (2 semesters / 1 credit)**

**Prerequisites:** Freshman concurrently enrolled in either Math 3119 or English 1119.

This team-taught course helps students develop their basic reading and math skills. Additionally, students will receive support in developing time management, organization, and other self-regulation skills.

## Theology Courses

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### **8111, 8113, 8115, 8117, 8119 The Revelation of God (2 semesters / 1 credit)**

**Prerequisites:** Required for freshmen. **Note:** Students in 8119 must also be in English 1119.

The Freshman year of theology invites students to explore the many ways that God is revealed to us in scripture, the person of Jesus, and the Church. Students are encouraged to apply scripture to their lives, and are provided tools to interpret and understand the Bible as the inspired word of God. They will explore the origins, genres, and relationship of the Old and New Testaments, all leading to an in-depth study of the Gospels and a closer relationship with Christ and the Church. Students will explore Jesus' life, example, and promise to always be with us, with an emphasis on discipleship as the response to the invitation to follow Jesus.

### **8021, 8025, 8028, 8928 Christology (Fall semester / 0.5 credit)**

**Prerequisites:** Required for sophomores. **Note:** Students in 8928 must also be in English 1129.

The purpose of this course is to help students understand all that God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails. Students should expect regular reading and/or written assignments and tests/quizzes.

### **8022, 8026, 8029, 8929 The Church (Spring semester / 0.5 credit)**

**Prerequisites:** Required for sophomores.

The purpose of this course is to help students understand that in and through the Church they encounter the living Jesus Christ. They will be introduced to the fact that the Church was founded by Christ through the Apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today. This Body has both divine and human elements. In this course, students will learn not so much about events in the life of the Church but about the sacred nature of the Church. Students should expect regular reading and/or written assignments and tests/quizzes.

### **8031, 8035, 8037 Ethics and Morality (Fall semester / 0.5 credit)**

**Prerequisites:** Required for juniors.

The purpose of this course is to help students understand that it is through Christ that they can fully live out God's plan for their lives. Students are to learn the moral concepts and precepts that govern the lives of Christ's disciples. Students should expect regular reading and/or written assignments and tests/quizzes.

### **8032, 8036, 8038 Social Justice (Spring semester / 0.5 credit)**

**Prerequisites:** Required for juniors.

The purpose of this course is to introduce students to the Church's social teachings. In this course, students are to learn how Christ's concern for others, especially the poor and needy, is present today in the Church's social teachings and mission. Students should expect regular reading and/or written assignments and tests/quizzes.

## Theology Courses

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### **8042, 8046, 8048 World Religions (Fall semester / 0.5 credit)**

**Prerequisites:** Required for seniors.

The purpose of this course is to help students understand the manner in which the Catholic Church relates to non-Catholic Christians as well as to other religions of the world. The course is intended to help students recognize the ways in which important spiritual truths can also be found in non-Catholic Christian churches and ecclesial communities as well as in non-Christian religions. It is also intended to help them to recognize the ways in which other systems of belief and practice differ from the Catholic faith.

### **8052 Senior Spirituality Seminar in the Xaverian Tradition (Spring semester / 0.5 credit)**

**Prerequisites:** Department approval. Required for all seniors not taking 8062, 8066, or 8068.

The purpose of this course is to invite each student to explore his spiritual life through the exploration of many holy men and women who have written extensively on the inner journey. This includes reflecting on the lives and teachings of Theodore James Ryken, the Xaverian Brothers, and many great spiritual educators. It will emphasize spiritual practices, personal development, and the Catholic call to discipleship exhibited by the Xaverian Brothers. The class is designed for students who find meaning in small group discussions, storytelling, keeping a daily journal and a willingness to read numerous articles and stories on the spiritual life. The goal of this course is to equip the students with the tools necessary to recognize and develop their own spiritual journey as they begin a new chapter in life after graduation.

### **8062, 8066, 8068 The Christian Life (Spring semester / 0.5 credit)**

**Prerequisites:** Required for seniors not taking 8052.

After graduation, what will your life look like? How can you live a meaningful life in the world today, in light of our Xaverian tradition? This course explores critical topics related to adult life— personal identity, communication, relationships and intimacy, money and possessions, and work—to help you discern the kind of vocation and lifestyle to which you are called.

## Independent Study

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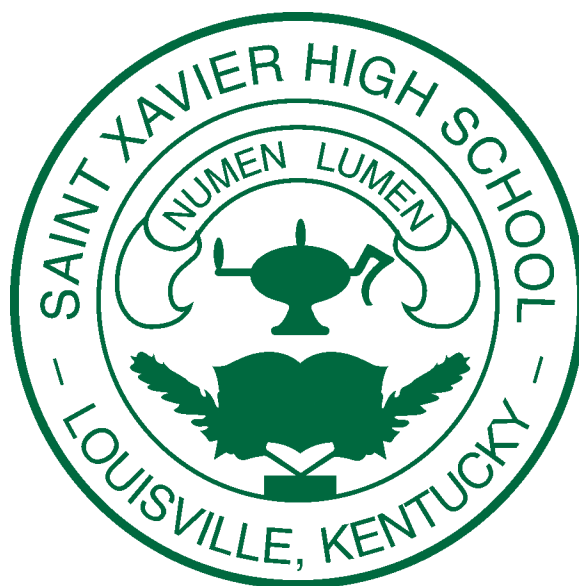
### **9909 Fall Semester Independent Study (1 semester / 0 credit)**

### **9910 Spring Semester Independent Study (1 semester / 0 credit)**

Sign up for Independent Study (formerly Study Hall) according to the semester that you prefer to take it. If you prefer to have Independent Study for the whole year, you must sign up for both 9909 and 9910.

**NOTE: Students may only take four total semesters of study hall throughout their time at Saint Xavier. Transfer students' opportunity to take study halls will be dependent on the number of academic credits earned prior to enrolling at Saint Xavier.**





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