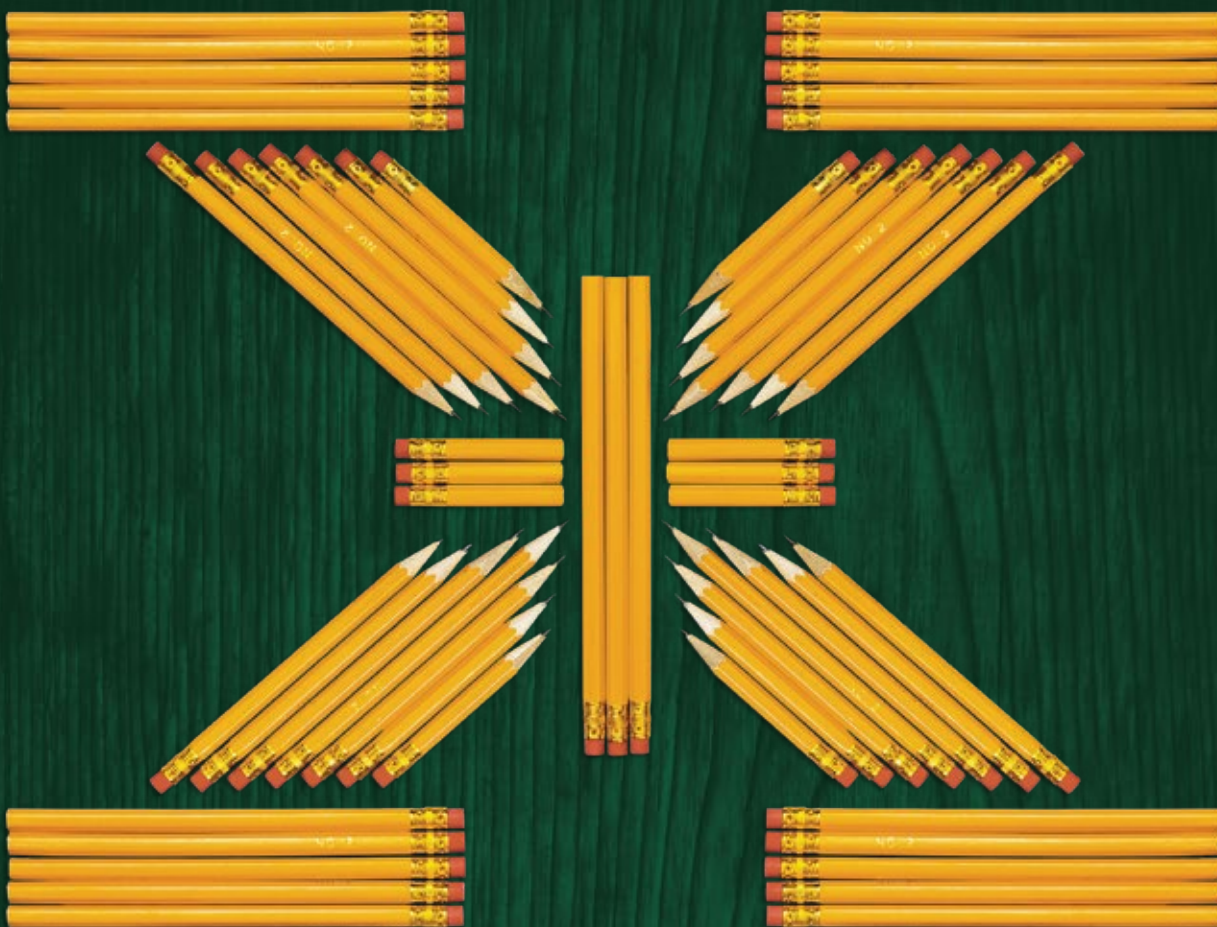


# SAINT XAVIER HIGH SCHOOL



## Course Catalog 2020-2021



*National Blue Ribbon School of Excellence*  
1984 1989 1993 2016

**1609 Poplar Level Road  
Louisville, KY 40217  
502-637-4712**



### **Principal**

Mr. Francisco Espinosa, Jr.

### **Assistant Principals**

Mr. Arnold Drury	Student Life (11-12)
Mr. Tony Scheler	Student Life (9-10)
Ms. Amy Sample	Studies
Mr. Sorin Spohn	Faculty Supervision
Mr. Joe White	Academic Services

### **Counseling Office**

502-634-2135

#### **Freshmen in 2020-2021**

Ms. Amber Wissing (A-K)  
Mr. David Ianke (L-Z)

#### **Juniors in 2020-2021**

Mr. Nic Crider (A-K)  
Ms. Elizabeth Newkirk (L-Z)

#### **Sophomores in 2020-2021**

Mr. Jill Tucker (A-K)  
Mr. Rick Sorrels (L-Z)

#### **College Counselors**

Ms. Carrie Foster (A-K)  
Mr. Andrew Hovekamp (L-Z)

### **Resource Coordinator**

Dr. Beatriz Pacheco

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## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
<b>ENGLISH</b>				
		1111	Honors English 1	1.00
		1113	English 1	1.00
		1115	English 1	1.00
		1117	English 1	1.00
		1119	English 1	1.00
		1519	Reading	0.50
		1121	Honors English 2	1.00
		1123	English 2	1.00
		1125	English 2	1.00
		1127	English 2	1.00
		1129	English 2	1.00
		1131	Honors English 3	1.00
		1133	English 3	1.00
		1135	English 3	1.00
		1137	English 3	1.00
		1138	English 3	1.00
		1141	Honors English 4	1.00
		1143	English 4	1.00
		1145	English 4	1.00
		1147	English 4	1.00
		1148	English 4	1.00
		1151	Honors Journalism	1.00
		1153	Honors Journalism	0.50
		1154	Journalism	0.50
		1156	Journalism 2	0.50
		1251	Honors Photojournalism	1.00
		1255	Photojournalism	0.50
		1351	Honors Introduction to Speech	0.50
		1355	Introduction to Speech	0.50
		1455	Yearbook	1.00
		1930	AP English Language and Composition/British Literature	1.00
		1940	AP English Language and Composition	1.00
		1941	AP English Literature	1.00
<b>WORLD LANGUAGES</b>				
		2111	Honors Chinese 1	1.00
		2115	Chinese 1	1.00
		2121	Honors Chinese 2	1.00
		2125	Chinese 2	1.00
		2131	Honors Chinese 3	1.00
		2135	Chinese 3	1.00
		2141	Honors Chinese 4	1.00
		2145	Chinese 4	1.00

## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
		2210	Honors Spanish 2	1.00
		2211	Honors Spanish 1	1.00
		2214	Spanish 1	1.00
		2221	Honors Spanish 2	1.00
		2224	Spanish 2	1.00
		2225	Spanish 1	1.00
		2231	Honors Spanish 3	1.00
		2234	Spanish 3	1.00
		2235	Spanish 2	1.00
		2238	Introduction to Spanish 1	1.00
		2241	Honors Spanish 4	1.00
		2244	Spanish 4	1.00
		2245	Spanish 3	1.00
		2248	Intro to Spanish 2	1.00
		2250	Honors Spanish Conversation	0.50
		2251	Spanish Conversation	0.50
		2311	Honors French 1	1.00
		2321	Honors French 2	1.00
		2325	French 1	1.00
		2331	Honors French 3	1.00
		2335	French 2	1.00
		2341	Honors French 4	1.00
		2344	French 4	1.00
		2345	French 3	1.00
		2411	Honors German 1	1.00
		2421	Honors German 2	1.00
		2425	German 1	1.00
		2431	Honors German 3	1.00
		2435	German 2	1.00
		2441	Honors German 4	1.00
		2445	German 3	1.00
		2941	AP Spanish Language	1.00
		2942	AP French Language	1.00
		2943	AP German Language	1.00
		2944	AP Chinese Language	1.00
<b>MATH</b>				
		3113	Honors Algebra 1	1.00
		3115	Algebra 1	1.00
		3117	Algebra 1	1.00
		3119	Algebra 1	1.00
		3211	Advanced Honors Geometry/Algebra 2 (Part 1)	1.00
		3213	Honors Geometry	1.00

## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
		3215	Geometry	1.00
		3223	Honors Geometry	1.00
		3225	Geometry	1.00
		3227	Geometry	1.00
		3229	Geometry	1.00
		3321	Advanced Honors Algebra 2 (Part 2)/Precalculus (Part 1)	1.00
		3333	Honors Algebra 2	1.00
		3335	Algebra 2	1.00
		3337	Algebra 2	1.00
		3338	Algebra 2	1.00
		3431	Honors Precalculus (Part 2)	0.50
		3433	Honors Precalculus	1.00
		3445	Precalculus	1.00
		3531	Honors Calculus	0.50
		3545	Calculus	1.00
		3619	Math Fundamentals	0.50
		3645	Statistics	1.00
		3647	College Algebra	1.00
		3648	Advanced Algebra (with Financial Applications)	1.00
		3940	AP Calculus BC	1.00
		3941	AP Calculus BC	1.00
		3942	AP Calculus AB	1.00
		3943	AP Statistics	1.00
		3944	Calculus 3	1.00
		3949	Linear Algebra	1.00
<b>COMPUTER</b>				
		3765	HTML & Web Page Design	0.50
		3775	Robotics	0.50
		3776	Computer Game Programming	0.50
		3805	Computer Science Fundamentals	0.50
		3945	AP Programming in Java	0.50
		3946	AP Data Structures in Java	0.50
		3947	AP Computer Science Principles Part 1	0.50
		3948	AP Computer Science Principles Part 2	0.50
<b>SCIENCE</b>				
		4111	Honors Biology	1.00
		4113	Biology	1.00
		4115	Biology	1.00
		4117	Biology	1.00
		4119	Biology	1.00
		4227	Integrated Physical Science	1.00
		4229	Integrated Physical Science	1.00

## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
		4321	Honors Chemistry	1.00
		4322	Honors Chemistry	1.00
		4335	Chemistry	1.00
		4337	Chemistry	1.00
		4338	Chemistry	1.00
		4432	Honors Physics	1.00
		4445	Physics	1.00
		4446	Physics 2	1.00
		4447	Applied Physics	1.00
		4525	Environmental Science	1.00
		4540	Honors Science Independent Research	0.50
		4541	Honors Human Anatomy and Physiology	1.00
		4545	Human Anatomy and Physiology	1.00
		4645	Forensic Science	0.50
		4745	Engineering: Principles & Practice	0.50
		4746	Engineering 2	0.50
		4845	Exercise Physiology	0.50
		4941	AP Biology	1.00
		4942	AP Chemistry	1.00
		4943	AP Physics C	1.00
		4944	AP Environmental Science	1.00
		4945	AP Physics 1	1.00
<b>SOCIAL STUDIES</b>				
		5111	Honors World Geography	1.00
		5113	World Geography	1.00
		5115	World Geography	1.00
		5117	World Geography	1.00
		5119	World Geography	1.00
		5221	Honors World Civilization	1.00
		5223	World Civilization	1.00
		5225	World Civilization	1.00
		5227	World Civilization	1.00
		5229	World Civilization	1.00
		5331	Honors US History	1.00
		5333	US History	1.00
		5335	US History	1.00
		5337	US History	1.00
		5338	US History	1.00
		5443	Philosophy	0.50
		5445	US History (1945 to the Present)	0.50
		5545	American Government	0.50
		5645	Global Issues	0.50

## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
		5745	Psychology	0.50
		5845	Economics	0.50
		5931	AP US History	1.00
		5941	AP European History	1.00
		5942	AP US Government and Politics	0.50
		5943	AP Psychology	1.00
		5944	AP Comparative Government	0.50
		5945	AP Human Geography	1.00
		5946	AP Macroeconomics	1.00
<b>FINE ARTS - MUSIC</b>				
		6041	Honors Guitar/Bass	0.50
		6045	Guitar/Bass	0.50
		6062	Honors Instrumental Music 2	0.50
		6063	Honors Instrumental Music 3	0.50
		6064	Honors Instrumental Music 4	0.50
		6070	Honors Percussion/Keyboard	0.50
		6071	Honors Percussion/Keyboard 2	0.50
		6075	Percussion/Keyboard	0.50
		6141	Honors Digital Music 1	0.50
		6142	Honors Digital Music 2	0.50
		6145	Digital Music 1	0.50
		6151	Honors Choral Music 1	0.25
		6152	Honors Choral Music 2	0.25
		6153	Honors Choral Music 3	0.25
		6154	Honors Choral Music 4	0.25
		6155	Choral Music 1	0.25
		6951	AP Music Theory	1.00
<b>FINE ARTS - VISUAL ARTS</b>				
		6241	Honors Visual Art Studio	0.50
		6245	Visual Art Studio	0.50
		6131	Honors Innovation Art	0.50
		6135	Innovation Art	0.50
		6260	Honors Ceramics 1	0.50
		6261	Honors Ceramics 2	0.50
		6262	Honors Ceramics 3	0.50
		6265	Ceramics 1	0.50
		6270	Honors Graphic Design 1	0.50
		6271	Honors Graphic Design 2	0.50
		6272	Honors Graphic Design 3	0.50
		6275	Graphic Design 1	0.50
		6280	Honors Drawing/Painting 1	0.50
		6281	Honors Drawing/Painting 2	0.50



## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
		6282	Honors Drawing/Painting 3	0.50
		6285	Drawing/Painting 1	0.50
		6350	Honors Sculpture 1	0.50
		6351	Honors Sculpture 2	0.50
		6355	Sculpture 1	0.50
		6941	AP Studio Art: 2D	1.00
		6942	AP Studio Art: Drawing	1.00
		6943	AP Studio Art: 3D Design	1.00
		6950	AP Art History	1.00
<b>FINE ARTS - FILM/BROADCASTING AND PHOTOGRAPHY</b>				
		6370	Honors Film Study 1	0.50
		6375	Film Study	0.50
		6380	Honors Filmmaking 1	0.50
		6385	Filmmaking 1	0.50
		6481	Honors Broadcasting	0.50
		6486	Broadcasting	0.50
		6531	Honors iPhotography	0.50
		6535	iPhotography	0.50
<b>FINE ARTS - CREATIVE WRITING</b>				
		6450	Honors Creative Writing 1	0.50
		6451	Honors Creative Writing 2	0.50
		6452	Honors Creative Writing 3	0.50
		6453	Honors Creative Writing 4	0.50
		6455	Creative Writing	0.50
<b>FINE ARTS - DRAMA</b>				
		6360	Honors Theatre	0.50
		6365	Theatre	0.50
		6461	Honors Acting 2	0.50
		6462	Honors Acting 3	0.50
		6463	Honors Acting 4	0.50
		6464	Honors Improvisational Theatre	0.50
		6466	Improvisational Theatre	0.50
		6560	Honors Directing	0.50
<b>HEALTH &amp; PHYSICAL EDUCATION</b>				
		7055	Physical Education	0.50
		7056	Health	0.50
		7057	Strength/Fitness	0.50
<b>DRAFTING</b>				
		7155	Mechanical Drawing	0.50
		7156	Computer Aided Drafting (CAD)	0.50
		7157	Architectural Drawing	0.50
		7158	3D Computer Aided Drafting (CAD)	0.50

## COURSE REQUEST WORKSHEET

SELECT	ALT.	COURSE #	COURSE DESCRIPTION	CREDITS
<b>BUSINESS</b>				
		7241	College Accounting	1.00
		7255	Accounting - Part 1	0.50
		7256	Accounting - Part 2	0.50
		7355	Finance and Investment	0.50
		7356	Business Administration	0.50
		7555	Computer Applications	0.50
		7559	Essential Skills	0.50
<b>THEOLOGY</b>				
		8021	Christology	0.50
		8022	The Church	0.50
		8025	Christology	0.50
		8026	The Church	0.50
		8028	Christology	0.50
		8029	The Church	0.50
		8928	Christology	0.50
		8929	The Church	0.50
		8031	Ethics and Morality	0.50
		8032	Social Justice	0.50
		8035	Ethics and Morality	0.50
		8036	Social Justice	0.50
		8037	Ethics and Morality	0.50
		8038	Social Justice	0.50
		8041	Sacraments	0.50
		8042	World Religions	0.50
		8045	Sacraments	0.50
		8046	World Religions	0.50
		8047	Sacraments	0.50
		8048	World Religions	0.50
		8052	Xaverian Spirituality	0.50
		8111	The Revelation of God	1.00
		8113	The Revelation of God	1.00
		8115	The Revelation of God	1.00
		8117	The Revelation of God	1.00
		8119	The Revelation of God	1.00
<b>STUDY HALL</b>				
		9909	Study (Fall)	0.00
		9910	Study (Spring)	0.00
<b>LEADERSHIP</b>				
		9911	Peer Tutoring and Leadership	0.25
		9912	Peer Tutoring and Leadership	0.25

# English

## 1111 Honors Foundations in Literature and Composition

*(2 semesters) 1 credit*

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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 Reading 1519.

**DESCRIPTION:** 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.

## 1519 Reading 1

*(2 semesters) 1/2 credit*

**PREREQUISITES:** Placement by administration using placement exam scores as guideline. Concurrent enrollment in 1119.

**DESCRIPTION:** This team-taught course helps students develop and enhance their reading skills. It is designed for students who require additional preparation and skill building for reading comprehension.

## 1121 Honors American Literature and Composition

*(2 semesters) 1 credit*

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

## 1129 American Literature and Composition

*(2 semesters) 1 credit*

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

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

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

**DESCRIPTION:** 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.

**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. It also prepares juniors for 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.

**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. Students are encouraged, but not required to sit for 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.

**DESCRIPTION:** Designed for students already capable of college-level work. Focuses on the study of novels, dramas, and poetry. Students are encouraged, but not required, to sit for the AP English Literature College Board exam.

## COMMUNICATIONS

**1151 Honors Journalism**  
(2 semesters) 1 credit

**1153 Honors Journalism**  
(1 semester) 1/2 credit

**1154 Journalism**  
(1 semester) 1/2 credit

**1156 Journalism 2**  
(1 semester) 1/2 credit

**PREREQUISITES:** Sophomore, junior, or senior. Minimum of a B in previous English class. Signature of current English teacher required.

**DESCRIPTION:** This course is designed for students interested in writing for media as well as for students who want to improve their writing in general. Students will learn the basics of journalism, including reporting, interviewing, and fundamentals of journalistic writing. Class assignments will include writing articles for the *Xavier News*.

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

**1255 Photojournalism**  
(1 semester) 1/2 credit

**PREREQUISITES:** Sophomore, junior, or senior with a minimum of a B in previous English class. Signature of current English teacher required.

**DESCRIPTION:** 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 the yearbook.

**1351 Honors Introduction to Speech**  
(1 semester) 1/2 credit

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

**1355 Introduction to Speech**  
(1 semester) 1/2 credit

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

**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**  
(2 semesters) 1 credit

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

**DESCRIPTION:** This course is designed for students who are interested in writing, photography, and/or doing layout. Students will learn the basics of journalism, including reporting, writing style, and interviewing. They will also learn the basics of photography composition and Photoshop. The course consists of formal assessments early in the year, while the remainder of the year is spent working individually or in small teams to cover school events and produce spreads for Saint Xavier's yearbook, *The Tiger*. As such, the course does require students to attend outside school events occasionally. The ability to work with others and to meet deadlines is extremely important.

## World Languages

**2111 Honors Chinese 1**  
(2 semesters) 1 credit

**2115 Chinese 1**  
(2 semesters) 1 credit

**PREREQUISITES:** Freshman or sophomore beginning a language. Also open to juniors and seniors who have completed their language requirement in another language.

**DESCRIPTION:** This introduction to Mandarin Chinese is designed for students who have an interest in studying the basics of the language. Students will learn the fundamentals of Chinese communication through the skills of speaking, listening, reading and writing. Students will learn the Pinyin romanization system and learn to handwrite and type Chinese characters. Basic vocabulary and grammatical structures are presented in oral conversational situations. Students will also be introduced to the culture, geography and history of regions where Mandarin Chinese is a prominently spoken language. Students can expect frequent homework assignments and quizzes. They can expect to spend approximately 20-25 minutes each evening in preparation of written homework or study. Each student must be prepared to participate daily in class activities. Honors students will be held to a higher standard of precision in their language production.

### 2121 Honors Chinese 2 (2 semesters) 1 credit

**PREREQUISITES:** Minimum of a B in 2111 and department approval.

### 2125 Chinese 2 (2 semesters) 1 credit

**PREREQUISITES:** 2115 and department approval.

**DESCRIPTION:** This course continues where the corresponding Chinese 1 class left off. Students will master more complex sentence structures and vocabulary in order to communicate in everyday life situations through speaking, listening, reading and writing. Students will become more proficient in their use of Mandarin's four tones. Authentic resources will be occasionally used as significant components of classroom activities, so that students will be authentically using their reading and listening abilities. Cultural topics relating to the Chinese speaking world will be incorporated into lessons and assignments, allowing students to improve cultural proficiency alongside linguistic proficiency. Students can expect frequent homework assignments and quizzes. They can expect to spend approximately 20-30 minutes each evening in preparation of written homework or study. Each student must be prepared to participate daily in class activities. Honors students will be held to a higher standard of precision in their language production.

### 2131 Honors Chinese 3 (2 semesters) 1 credit

**PREREQUISITES:** Minimum of a B in 2121 and department approval.

### 2135 Chinese 3 (2 semesters) 1 credit

**PREREQUISITES:** 2125 and department approval.

**DESCRIPTION:** This course continues where the corresponding Chinese 2 class left off. Students will master more complex sentence structures and vocabulary in order to communicate in everyday life situations through speaking, listening, reading and writing. Students will become more proficient in their use of Mandarin's four tones. Authentic resources will be regularly used as significant components of classroom activities, so that students will be authentically using their reading and listening abilities. The primary language of instruction is Chinese. Cultural topics relating to the Chinese speaking world will be incorporated into lessons and assignments, allowing students to improve cultural proficiency alongside linguistic proficiency. Students can expect frequent homework assignments and quizzes. They can expect to spend approximately 30 minutes each evening in preparation of written homework or study. Each student must be prepared to participate daily in class activities. Honors students will be held to a higher standard of precision in their language production.

### 2141 Honors Chinese 4 (2 semesters) 1 credit

**PREREQUISITES:** Minimum of a B in 2131 and department approval.

### 2145 Chinese 4 (2 semesters) 1 credit

**PREREQUISITES:** Minimum of a C in 2135 department approval.

**DESCRIPTION:** students will build on their current Mandarin Chinese ability in order to communicate about challenging topics beyond everyday life. Students will master new sentence structures and large amounts of new vocabulary as they learn to read, listen, write and speak about Chinese cultural and social topics. Students will become more proficient in their use of Mandarin's four tones. Authentic resources will be used centrally in classroom activities and assignments and will serve as the basis of both grammatical instruction and cultural discussion. The primary language of instruction is Chinese. Students can expect abundant homework assignments and quizzes. They can expect to spend at least 30 minutes each evening in preparation of written homework or study. Each student must be prepared to participate daily in class activities. Honors students will be held to a higher standard of precision in their language production.

### 2944 AP Chinese Language and Culture (2 semesters) 1 credit

**PREREQUISITES:** Minimum of a B in 2131 and department approval.

**DESCRIPTION:** Students will build on their current Mandarin Chinese ability in order to communicate about challenging topics beyond everyday life as they prepare to take the AP Chinese Language and Culture College Board exam. Assignments will reflect the expectations of the exam. Students will master new sentence structures and large amounts of new vocabulary as they learn to read, listen, write and speak about Chinese cultural and social topics. Students will become more proficient in their use of Mandarin's four tones. Authentic resources will be used centrally in classroom activities and assignments and will serve as the basis of both grammatical instruction and cultural discussion. With exceptions, the class is conducted exclusively in Mandarin Chinese. Students can expect abundant homework assignments and quizzes. They can expect to spend at least 30 minutes each evening in preparation of written homework or study. Each student must be prepared to participate daily in class activities. Students are encouraged to sit for the AP exam.

### 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.

**DESCRIPTION:** This is a first year course introducing the student to the Spanish language. Its main objective is to build 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.

**DESCRIPTION:** This is a first year course introducing the student to the Spanish language. Its main objective is to build 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 of each student.

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

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

**DESCRIPTION:** This is a first year course designed for the academic student. 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.

**DESCRIPTION:** 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.

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

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

**DESCRIPTION:** 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 course is designed for the student who has demonstrated superior ability in 2211. This is generally a sophomore course.

**DESCRIPTION:** 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.**DESCRIPTION:** 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.**DESCRIPTION:** This course, for the academic student, 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 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 and department approval.**DESCRIPTION:** 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.**DESCRIPTION:** This course is designed for the student who has demonstrated superior ability in 2210 or 2221 and desires 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.**DESCRIPTION:** This course offers the academic student 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.**DESCRIPTION:** This course continues building on the vocabulary and grammar content of 2235. 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.**2241 Honors Spanish 4****(2 semesters) 1 credit****PREREQUISITES:** Junior or Senior with a minimum of a B in 2231 and department approval.**DESCRIPTION:** 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.

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### 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.

**DESCRIPTION:** This course is designed for the student who has demonstrated intermediate-low proficiency in Spanish 3 and has shown a genuine motivation to further his language study. There 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 to study and complete homework assignments.

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### 2250 Honors Spanish Conversation (2 semesters) 1/2 credit

### 2251 Spanish Conversation (2 semesters) 1/2 credit

**PREREQUISITES:** Minimum of a B in 2231 or 2234 and department approval. This is generally a junior/senior course designed for highly motivated students at intermediate-low and approaching intermediate-mid level of proficiency in the language.

**DESCRIPTION:** This course focuses on oral communication skills through the acquisition of additional vocabulary, review of essential grammatical structures, cultural readings and videos, speaking activities, listening activities and oral presentations. Students will lead and participate in roundtable discussions each Friday in addition to smaller group-based speaking activities. Students can expect to spend 20-30 minutes per night completing written, speaking, reading and listening

homework as well as preparing for weekly vocabulary quizzes. The class will be conducted entirely in Spanish. This is a ½-credit course that meets every other day. Students report to study hall the other days of the week.

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

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

**DESCRIPTION:** 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. Students are encouraged to sit for 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.

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### 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.

**DESCRIPTION:** 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 teacher approval. This is generally a sophomore course.

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

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

**DESCRIPTION:** 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 teacher approval.

**DESCRIPTION:** 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 teacher approval.

**DESCRIPTION:** 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 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 teacher approval.

**DESCRIPTION:** 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 teacher approval.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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. Students are encouraged to sit for the AP French Language and Culture College Board exam.

### 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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 teacher approval. This is generally a junior course.

**DESCRIPTION:** 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.

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

**PREREQUISITES:** Minimum of a B in 2421 with and teacher approval.

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

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

**DESCRIPTION:** 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 teacher approval.

**DESCRIPTION:** 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, and 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 teacher approval.

**DESCRIPTION:** 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 and the successful completion of the AP German Language and Culture College Board exam.

## Mathematics

*Calculators and iPads: Most students at St. X are required to have a graphing calculator for their 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-and-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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

## 3619 Math Fundamentals (2 semesters) 1/2 credit

**PREREQUISITES:** Concurrent enrollment in 3119.

**DESCRIPTION:** This course is designed for the freshman EXCEL level math student who is required to take this course every other day in addition to 3119. This allows students extra time to work on basic math skills and to complete all of Algebra 1 their freshman year. This is a Pass/Fail course.

## 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** Designed for the academic math student. 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 academic Algebra 2.

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

**PREREQUISITES:** 3113 and teacher approval.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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 academic Algebra 2.

### 3227 Geometry (2 semesters) 1 credit

**PREREQUISITES:** 3117 and teacher approval.

**DESCRIPTION:** This course is designed for the academic math student. 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 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.

**DESCRIPTION:** 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 (Part 2)/ Precalculus (Part 1) (2 semesters) 1 credit

**PREREQUISITES:** 3211 and teacher approval.

**DESCRIPTION:** 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 3431 and 3531.

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

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.**DESCRIPTION:** 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, 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.**DESCRIPTION:** 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.**3431 Honors Precalculus (Part 2)***(1 semester) 1/2 credit***PREREQUISITES:** 3321 and teacher approval.**DESCRIPTION:** 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.**DESCRIPTION:** 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.**DESCRIPTION:** 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.**3531 Honors Calculus (Part 1)***(1 semester) 1/2 credit***PREREQUISITES:** 3321 and teacher approval. Students must successfully complete 3431 in the first semester to continue to 3531.**DESCRIPTION:** 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.**DESCRIPTION:** 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:** Senior with successful completion of, or concurrent enrollment in, Precalculus and teacher approval.**DESCRIPTION:** 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.

**DESCRIPTION:** 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 Advanced Algebra (with Financial Applications) (2 semesters) 1 credit

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

**DESCRIPTION:** Students will study mathematical concepts of advanced algebra in the context of financial applications. Students will continue their study of functions, graphs, percent applications, mathematical modeling, statistics, regression analysis, and linear programming in real-world contexts including banking services like loans and accounts, consumer credit, taxes, insurance, and other investments. Students should expect approximately 20-30 minutes of daily homework and weekly assessments. This course prepares students for entry-level college math courses.

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

**PREREQUISITES:** 3531 and teacher approval.

**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 sit for 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.

**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 sit for the AP Calculus/BC College Board AP exam, and for any rigorous college calculus or engineering program.

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

**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.

**DESCRIPTION:** 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. Students enrolled in this course will be prepared to sit for 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.

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**COMPUTER****3765 HTML & Web Page Design***(1 semester) 1/2 credit***PREREQUISITES:** Sophomore, junior, or senior.

**DESCRIPTION:** 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.

**3775 Robotics***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students.

**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.

**3776 Computer Game Programming***(1 semester) 1/2 credit***PREREQUISITES:** Sophomore, junior, or senior.

**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.

**3805 Computer Science Fundamentals***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students.

**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.

**3945 AP Programming in Java***(1 semester – Fall) 1/2 credit***PREREQUISITES:** Department approval.

**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 in the spring.

### 3946 AP Data Structures in Java

*(1 semester – Spring) 1/2 credit*

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

**DESCRIPTION:** 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

*(1 semester – Fall) 1/2 credit*

**PREREQUISITES:** Department approval.

**DESCRIPTION:** This course introduces students to the foundational concepts of computer science and the Swift programming language (Apple's programming language). In the first semester, students will cover the principles of abstraction, binary logic, CPU's, user interfaces, algorithms, and programming. These concepts set the stage to develop iOS apps in the second semester. Students must also enroll in 3948 to take the AP Computer Science Principles College Board exam.

### 3948 AP Computer Science Principles 2

*(1 semester – Spring) 1/2 credit*

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

**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 iOS app as they become more proficient with the Swift language. Additional principles of problem analysis, data analysis, algorithms, the internet, cybersecurity, machine learning and impacts of computing on society will be explored. Students will complete the College Board required portfolio and prepare to take the AP Computer Science Principles College Board exam. Students are encouraged, but not required, to sit for the College Board AP Exam.

## SCIENCE

### 4111 Honors Biology

*(2 semesters) 1 credit*

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

**DESCRIPTION:** 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.

**DESCRIPTION:** This course is designed for the student who wishes to learn the major themes of biology. Topics will include the scientific method, chemistry of life, cell structure and function, genetics, evolution, bacteria, taxonomy, plants, and animals. 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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 in 4111, and teacher approval.

**DESCRIPTION:** 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 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.

### 4322 Honors Chemistry (2 semesters) 1 credit

**PREREQUISITES:** Sophomore with a minimum of a B in 4111 and Honors Algebra, or junior with a minimum of a B in Honors Geometry and department approval.

**DESCRIPTION:** This course is designed for the above average student and is considered a traditional college preparatory chemistry course. Topics covered will include: introduction to chemistry and matter; organization of matter including phases, atomic theory, elementary quantum theory, periodic law, and chemical bonding; and the language of chemistry including formulas, compounds, equations, reactions, and stoichiometry. Problem solving skills and laboratory techniques will be emphasized through the course. Students are expected to study 30 minutes each night in conjunction with completion of problem sets and laboratory reports.

### 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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 teacher approval.

**DESCRIPTION:** 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 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 Physics 2 (2 semesters) 1 credit

**PREREQUISITES:** Senior standing, a minimum of a B in Physics 4445, and teacher approval.

**DESCRIPTION:** 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.

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

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

**DESCRIPTION:** The course is designed for students who wish 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 and will require students to keep a log/journal of all their studies and activities. Students in this course can expect 15 minutes of homework 2-3 nights a week along with necessary quizzes and tests.

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

**PREREQUISITES:** Sophomore and completion of Biology. This course may also be taken as a senior science elective.

**DESCRIPTION:** This course is designed for the student who wishes 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. In addition to the environmental issues and topics, the student will participate in hands-on projects such as the scientific method (laboratory activities), and critical thinking case studies (data interpretation). Students should expect to spend 20-30 minutes per night on homework and/or study.

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#### **4540 Honors Science Independent Research** (1 semester) 1/2 credit

**PREREQUISITES:** Senior with a minimum of a B in 4111, 4321 or 4322 and 4332, and department approval.

**DESCRIPTION:** This course is designed for the highly independent honors student interested in performing a long term science experiment or design an invention. This course allows ½ credit for a student to compete in the Louisville Regional Science Fair (or similar). Topics of study are chosen by the student, as long as the broad

categories of the science fair can be applied. The ability to prioritize and follow through on a long term goal with no immediate satisfaction is important. Independent research involves the investigation of a particular idea and the expansion of that idea with a novel approach. Long months of research and preparation are required to defend one's work at the regional level competition. There are no tests or quizzes or normal homework. There are time dependent assignments which assist in the discovery of the rules and regulations of the science fair as it pertains to the individual student project.

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

**PREREQUISITES:** Senior standing, 4432 or concurrently with 4432.

**DESCRIPTION:** Same as 4545 but this course is designed for the above average student who wishes 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 wish 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.

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

**PREREQUISITES:** Senior standing, physics, or concurrently with physics.

**DESCRIPTION:** This course is designed for the academic student who wishes 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 wish 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) 1/2 credit

**PREREQUISITES:** Senior standing, physics, or concurrent registration in physics with department approval.

**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) 1/2 credit

**PREREQUISITES:** Physics or concurrent registration in physics and math 3333 or any precalculus course.

**DESCRIPTION:** 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) 1/2 credit

**PREREQUISITES:** 4745.

**DESCRIPTION:** 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 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) 1/2 credit

**PREREQUISITES:** Junior or senior.

**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.

### 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.

**DESCRIPTION:** This course is a college-level class designed for honor students who wish to gain in-depth knowledge of biological principles. It covers the same topics as Honors Biology but in greater detail. Major emphasis is given to topics of molecular biology, living processes including photosynthesis and cellular respiration, genetics, and recombinant DNA technology. This course will prepare students for the AP Biology College Board exam. Outside reading and assignments are required for this class. Grades are based on homework assignments, labs, quizzes, and tests.

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

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

**DESCRIPTION:** This course is designed for the superior 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. The goal of this course is to prepare students for the AP Chemistry College Board exam. Students are expected to spend approximately 30 minutes of study each night in addition to homework that is assigned. 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 4432 and concurrent registration in AP Calculus BC. (AP Calculus AB may be substituted with science department approval).

**DESCRIPTION:** This college-level course is designed for gifted students who have demonstrated superior ability

## SOCIAL STUDIES

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 Honors Physics, and apply calculus principles whenever possible to solve high-level problems. The goal of this course is to prepare students for 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.

**DESCRIPTION:** This is a college-level course designed for honors students who wish 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 for 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 or 4322 and honors math with department approval.

**DESCRIPTION:** This course is an algebra-based, introductory college-level physics course that explores topics such as Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. 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. The goal of the course is to prepare students for 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.

### 5111 Honors World Geography

*(2 semesters) 1 credit*

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

### 5113, 5115, 5117 World Geography

*(2 semesters) 1 credit*

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

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

**DESCRIPTION:** This course is designed for the honors student and moves at a rapid pace. The course follows a chronological approach beginning with the colonial period and continuing to 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) 1/2 credit***PREREQUISITES:** Junior or senior in Level 5 English or higher.

**DESCRIPTION:** This course is intended for the honors student interested in the history and major branches of western 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 philosophic 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 the present)***(1 semester) 1/2 credit***PREREQUISITES:** Senior with completion of U.S. History.

**DESCRIPTION:** This course is intended for the academic student who has an interest in more recent American history. Particular attention will be focused 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.

**5545 American Government***(1 semester) 1/2 credit***PREREQUISITES:** Senior. Students enrolled in 5942 may not enroll in this course.

**DESCRIPTION:** 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 and

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

**5645 Global Issues***(1 semester) 1/2 credit***PREREQUISITES:** Junior or senior.

**DESCRIPTION:** 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) 1/2 credit***PREREQUISITES:** Junior or senior.

**DESCRIPTION:** 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) 1/2 credit***PREREQUISITES:** Junior or senior.

**DESCRIPTION:** This course is designed for an academic student who wishes 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.

**5931 AP United States History***(2 semesters) 1 credit***PREREQUISITES:** Junior with 5221 and department approval.

**DESCRIPTION:** This course is designed for 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. A student is 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. The course will prepare 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.

**DESCRIPTION:** 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. The course will prepare the student to take the AP European History College Board exam.

### 5942 AP United States Government and Politics (1 semester) 1/2 credit

**PREREQUISITES:** Senior with department approval.

**DESCRIPTION:** 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, such as the three 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 study/reading, writing, and research-based assignments. Students will be prepared 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.

**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. Students will be prepared to take the AP Psychology College Board exam.

### 5944 AP Comparative Government (1 semester) 1/2 credit

**PREREQUISITES:** Senior. 5545 or 5942 and department approval.

**DESCRIPTION:** 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. Students are encouraged but not required to sit for 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.

**DESCRIPTION:** This course will introduce students to the spatial world around them and its influences on human behavior. Students will not only learn the methods geographers use in their practice, but they will put those methods to use through a variety of learning activities. Important concepts such as human-environment interaction, population, political organization, and industrialization will be studied and applied to different peoples and problems throughout the world. Students are encouraged but not required to sit for the AP Human Geography College Board exam.

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

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

**DESCRIPTION:** This course 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 for the AP Macroeconomics College Board exam and for further study in business, political science, and history.

## Fine Arts/Creative Writing

### 6450 Honors Creative Writing 1 (1 semester) 1/2 credit

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

### 6455 Creative Writing 1 (1 semester) 1/2 credit

**PREREQUISITES:** Open to all students.

**DESCRIPTION:** This course is designed for students who want to explore writing creatively. Students develop their personal writing style through a variety of imaginative writing activities including short stories, poems, and screenplays. Grades are earned by completing creative writing assignments. Instead of a traditional midterm or final, students will create a portfolio of their writing. This course will prepare students to write with increased confidence, skill, and creativity. Honors students move at a faster pace with more complex projects.

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

**PREREQUISITES:** Minimum of a B in 6450.

**DESCRIPTION:** This course is designed for Creative Writing students who want to deepen their skills in one or two genres of their own choosing. Students work on individually-designed writing projects such as a full-length screenplay, novel, or a collection of poems. While there are some general assignments, most of the course work involves individually-designed projects. There are no written tests or quizzes; grades are earned by completing creative writing assignments. Instead of a traditional midterm or final, students will create a portfolio of their writing.

### 6452 Honors Creative Writing 3 (1 semester) 1/2 credit

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

**DESCRIPTION:** 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 midterm or final, students will create a portfolio of their writing.

### 6453 Honors Creative Writing 4 (1 semester) 1/2 credit

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

**DESCRIPTION:** 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. An annotated version of their final work will serve as their midterm or final.

## Fine Arts/Drama

### 6360 Honors Theatre (1 semester) 1/2 credit

**PREREQUISITES:** Open to all students prepared to do honors-level work. Students with prior acting training or experience should enroll in 6461.

### 6365 Theatre (1 semester) 1/2 credit

**PREREQUISITES:** Open to all students.

**DESCRIPTION:** Students will actively learn about the fundamentals of theatre. The class will focus on acting, improvisation, and other performance skills, but students will also learn how to watch a play, how to create an improvised play, and how to use theatre techniques to master skills that can be used in other parts of their lives. Students are not required to rehearse outside class time. Instead of a traditional midterm or final, students will prepare a show which is done during class time. Honors students will complete additional projects. (This course replaces Acting 1)

### 6461 Honors Acting 2 (1 semester) 1/2 credit

**PREREQUISITES:** Acting 1, 6360, 6365, or extensive training and/or experience.

**DESCRIPTION:** This course builds on the improvisational foundation from Acting I or Theatre. Students will perform weekly improvisational theatre and also perform in scenes from contemporary plays. This class prepares students to think and perform quickly and to create and perform in a variety of theatre pieces as well as in a one-act class play. Students will also perform in one or more filmed performances. All rehearsals take place during class time.

### 6462 Honors Acting 3 (1 semester) 1/2 credit

**PREREQUISITES:** Minimum of a B in 6461.

**DESCRIPTION:** This course is designed for experienced students who want to expand their skills in creating a variety of characters in many different types of performances. Students will perform weekly improvisations, contemporary monologues, scenes from modern classic plays, a Shakespearean monologue, a scene from a Shakespearean play, and a one-act class play. Grades are earned through acting exercises and written reflections about acting performances. All rehearsals take place during class time.

### 6463 Honors Acting 4 (1 semester) 1/2 credit

**PREREQUISITES:** Minimum of a B in 6462.

**DESCRIPTION:** This course is designed for students thinking about continuing their work in acting beyond high school. Students will perform weekly improvisations



and prepare a set of contrasting monologues to use in college and professional auditions, act in scenes from contemporary and/or classical plays, and perform a one-act class play. Grades are earned through acting exercises and written reflections about acting performances. All rehearsals take place during class time.

### **6464 Honors Improvisational Theatre** *(1 semester) 1/2 credit*

**PREREQUISITES:** Acting 1, 6360, or 6365.

### **6466 Improvisational Theatre** *(1 semester) 1/2 credit*

**PREREQUISITES:** Acting 1, 6360, or 6365.

**DESCRIPTION:** In this course students explore various types of improvisational theatre. 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, collaborate with others, and to create. Most grades will result from in-class performances. Honors students will complete additional projects.

### **6560 Honors Directing** *(1 semester) 1/2 credit*

**PREREQUISITES:** Minimum of a B in 6461.

**DESCRIPTION:** Students will develop their theatre directing skills by working as a director in conjunction with a beginning 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. This course will meet in conjunction with a Theatre class.

## Fine Arts/Film, Broadcasting, And Photography

### **6370 Honors Film Study 1** *(1 semester) 1/2 credit*

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

### **6375 Film Study 1** *(1 semester) 1/2 credit*

**PREREQUISITES:** Sophomores, junior, or senior.

**Description:** This course is designed for students who want to deepen their understanding of film. They will explore cinematic techniques, study and analyze classic and influential films (and film genres), and learn to view a film on multiple levels. Grades are earned through a combination of tests, essay assignments, and a filmmaking project. Honors students will supplement their course work with presentations on different film genres and directors.

### **6380 Honors Filmmaking 1** *(1 semester) 1/2 credit*

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

### **6385 Filmmaking 1** *(1 semester) 1/2 credit*

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

**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 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) 1/2 credit*

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

### **6486 Broadcasting** *(1 semester) 1/2 credit*

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

**DESCRIPTION:** In the 21st century, professionals in nearly all fields are increasingly required to have multimedia and video production skills. This course will give an overview of basic video, audio, and multimedia production, including producing short video segments. There will be a special emphasis on multimedia for the web and social networking. Students will gain skills both in front of and behind the camera. Work on WSTX is not required. Grades will be earned primarily through broadcast projects. Honors students will also create class presentations.

**6531 Honors iPhotography***(1 semester) 1/2 credit***PREREQUISITES:** Sophomore, junior, or senior prepared to do honors-level work.**6535 iPhotography***(1 semester) 1/2 credit***PREREQUISITES:** Sophomore, junior, or senior.**DESCRIPTION:** 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.**Fine Arts/Music****6041 Honors Guitar / Bass***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students prepared to do honors-level work.**6045 Guitar / Bass***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students.**DESCRIPTION:** In this course, designed for beginners or those with limited experience playing guitar or bass, students 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. (Note: Students who already have experience playing guitar or bass should enroll in 6062).**6062 Honors Instrumental Music 2***(1 semester) 1/2 credit***PREREQUISITES:** Previous music class or experience.**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 places in the Louisville area. Students playing guitars, basses, winds, brass, and classical string instruments will need to furnish their own instruments.**6063 Honors Instrumental Music 3***(1 semester) 1/2 credit***PREREQUISITES:** 6062**DESCRIPTION:** This course is designed for students who want to continue their studies in contemporary music and wish to 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.**6064 Honors Instrumental Music 4***(1 semester) 1/2 credit***PREREQUISITES:** 6063**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.**6070 Honors Percussion / Keyboard***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students prepared to do honors-level work.**6075 Percussion / Keyboard***(1 semester) 1/2 credit***PREREQUISITES:** Open to all students.**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 than those in percussion/keyboard. (Note: Students who have experience with playing drums or keyboard should enroll in 6062).**6071 Honors Percussion / Keyboard 2***(1 semester) 1/2 credit***PREREQUISITES:** 6070 or 6075**DESCRIPTION:** This course is designed for students who wish 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) 1/2 credit*

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

### 6145 Digital Music 1

*(1 semester) 1/2 credit*

**PREREQUISITES:** Open to all students.

**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 will also work with other apps and technologies associated with 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 C in 6141.

**DESCRIPTION:** 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) 1/4 credit*

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

### 6155 Choral Music 1

*(1 semester) 1/4 credit*

**PREREQUISITES:** Open to all students.

### 6152 Honors Choral Music 2

*(1 semester) 1/4 credit*

Prerequisites: 6151 or 6155.

### 6153 Honors Choral Music 3

*(1 semester) 1/4 credit*

Prerequisites: 6152

### 6154 Honors Choral Music 4

*(1 semester) 1/4 credit*

**PREREQUISITES:** Approval of the instructor.

**DESCRIPTION:** 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 independent-study course is not scheduled during the school day and does

not meet every day; all work is done outside regular school hours.

### 6951 AP Music Theory

*(2 semesters) 1 credit*

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

**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 will prepare students to take the College Board AP 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/Visual Arts

### 6241 Honors Visual Art Studio

*(1 semester) 1/2 credit*

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

### 6245 Visual Art Studio

*(1 semester) 1/2 credit*

**PREREQUISITES:** Open to all students.

**DESCRIPTION:** 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 Innovation Art (1 semester) 1/2 credit

**PREREQUISITES:** Minimum of a C in course and studio grades in Introduction to Art, 6241, 6245, 6270, 6275. Students must be prepared to do honors-level work.

### 6135 Innovation Art (1 semester) 1/2 credit

**PREREQUISITES:** Minimum of a C in Introduction to Art, 6241, 6245, 6270, or 6275.

**DESCRIPTION:** This course is designed for the intermediate student and those who like solving problems. The tools available in the Innovation Lab (vinyl cutter, 3D printers, and laser cutter) will be used to create and develop 2-dimensional and 3-dimensional artwork outcomes. Both the lab and art studio space will be used. Problem-solving, development, experimentation, and art skills are required for this class. Research, sketch development, and then building the creation will be the sequence of the course's challenges. The items created in the Innovation Lab will be developed, added to, and enhanced further in the art studio space. I-pad 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) 1/2 credit

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

### 6265 Ceramics 1 (1 semester) 1/2 credit

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

**DESCRIPTION:** 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) 1/2 credit

**PREREQUISITES:** Minimum of a B in course and studio grades in 6260 or 6275 and in one of the following courses: Introduction to Art, 6241, or 6245.

**DESCRIPTION:** This course is designed for advanced art students with an interest in wheel-built ceramics. Students will 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) 1/2 credit

**PREREQUISITES:** Minimum of a B in course and studio grades for 6261 and previous ceramics teacher approval.

**DESCRIPTION:** This course is designed for advanced art students with an interest in 3-dimensional art. Students will work in clay and other media. Students will learn to explore their personal talents and interests while constructing functional and decorative artworks. Students will produce a minimum of 9 finished works of art during the semester. Work outside of class is required to complete all projects. This course will prepare the student to advance to AP 3D Design.

### 6270 Honors Graphic Design 1 (1 semester) 1/2 credit

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

### 6275 Graphic Design 1 (1 semester) 1/2 credit

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

**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 learned 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) 1/2 credit

**PREREQUISITES:** Minimum studio grades of a B or higher in 6275 or 6270 plus studio minimum grades of C or higher in Introduction to Art, 6244, or 6245.

**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 through creating brochures, logos, and layouts for magazines, newspapers, books, and illustrations. Some projects will involve Innovation Lab materials. Using the Adobe CS5 Suite, students will hone their skills and apply this knowledge to graphic visual problems.

### 6272 Honors Graphic Design 3 (1 semester) 1/2 credit

**PREREQUISITES:** Minimum course and studio grades of B in 6271 and teacher approval.

**DESCRIPTION:** This course is designed for advanced art students with an interest in creating commercial art-inspired designs. 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 to advance to AP Studio Art: 2D Design.

### 6280 Honors Drawing/Painting 1

*(1 semester) 1/2 credit*

**PREREQUISITES:** Minimum course and studio grades of B in Introduction to Art, 6241, or 6245.

### 6285 Drawing/Painting 1

*(1 semester) 1/2 credit*

**PREREQUISITES:** Minimum course and studio grades of B in Introduction to Art, 6241, or 6245.

**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 gesture, contour, perspective, portrait, landscape, and figure drawing. This course will prepare the student to develop visual communication skills to enroll in more advanced 2D or 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) 1/2 credit*

**PREREQUISITES:** Minimum course and studio grades of B in 6285 or 6280 and Introduction to Art, 6241, or 6245.

**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. This course will prepare the student to move deeper into his own work using more advanced techniques. 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) 1/2 credit*

**PREREQUISITES:** Minimum course and studio grades of B in 6281.

**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 explore all types of paint applications including historical studies of famous artists. This course will prepare the student to advance to AP Studio Art: 2D Design and Drawing Portfolios.

### 6350 Honors Sculpture 1

*(1 semester) 1/2 credit*

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

### 6355 Sculpture 1

*(1 semester) 1/2 credit*

**PREREQUISITES:** Open to all students.

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

### 6351 Honors Sculpture 2

*(1 semester) 1/2 credit*

**PREREQUISITES:** Course and studio grades of B or higher in 6350 or 6355 and also in Introduction to Art, 6241, or 6245.

**DESCRIPTION:** 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 will prepare the student 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:** Minimum course and studio grades of B in 6282 or 6272 and teacher approval.

**DESCRIPTION:** This course is designed for highly advanced art students with an interest in pursuing art at the college-level. Students will learn to develop a variety of styles as well as creating and maintaining a themed group of work. This course will prepare the student to submit an AP portfolio. Twelve works of variety and twelve themed works will be prepared to send to the College Board for scoring. Students will need to spend a lot of time outside of class on work for this course. Course work begins over the summer starting with Breadth. Due dates are given throughout the summer on Google Classroom.

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

**PREREQUISITES:** Minimum course and studio grades of B in 6941 and teacher approval.

**DESCRIPTION:** This course is designed for highly advanced art students with an interest in pursuing art at the college-level. Students will learn to develop a variety of drawing styles and mediums as well as to create and maintain a themed group of work. This course will prepare the student to submit an AP portfolio. Twelve drawings of variety and twelve themed drawings will be prepared to send to the College Board for scoring. Students will need to spend a lot of time outside of class on work for this course. Course work begins over the summer starting with Breadth. Due dates are given throughout the summer on Google Classroom.

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

**PREREQUISITES:** Four previous Visual Arts courses and teacher approval.

**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 multi-media works of art on a college-level, producing a line of work based on a single theme. This course will prepare the student to submit an AP portfolio. Students will need to complete five works over the summer before the course begins. Students will create three lines of work (breadth, concentration and quality section) to send to the College Board for review. Students will need to spend a lot of time outside of class on work for this course, including extra time in the ceramics studio.

### 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 are taking (or have taken) an advanced Visual Arts course.

**DESCRIPTION:** 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. However, students who have done well in humanities, history, literature, or in any of the advanced studio arts are especially encouraged to enroll. At the end of the course students will have the option to take the AP Art History College Board exam.

## Health and Physical Education

### 7055 Physical Education (2 semesters) 1/2 credit

**PREREQUISITES:** Required for all freshmen.

**DESCRIPTION:** 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) 1/2 credit

**PREREQUISITES:** Required for all freshmen.

**DESCRIPTION:** 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.

**DESCRIPTION:** 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.

## Drafting

### 7155 Mechanical Drawing (1 semester) 1/2 credit

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

**DESCRIPTION:** This is a basic drawing course 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.

**7156 Computer Aided Drafting***(1 semester) 1/2 credit***PREREQUISITES:** 7155 and teacher approval.**DESCRIPTION:** 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) 1/2 credit***PREREQUISITES:** 7156.**DESCRIPTION:** 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) 1/2 credit***PREREQUISITES:** 7156 and teacher approval.**DESCRIPTION:** 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 the AutoCAD system.

## Business

**7241 College Accounting***(2 semesters) 1 credit***PREREQUISITES:** Senior with department approval.**DESCRIPTION:** This course is the study of college level financial accounting. Topics to be covered include accounting entries, financial statements, payroll and taxes, uncollectible accounts, depreciation, inventory, stocks, bonds and others. Students will be expected to read and study each night as well as complete accounting problems. Successful completion of this course will prepare students to sit for the CLEP Accounting Exam.**7255 Accounting (Part 1)***(1 semester) 1/2 credit***PREREQUISITES:** Junior or senior.**DESCRIPTION:** This course is designed to introduce the 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) 1/2 credit***PREREQUISITES:** Minimum of a C in 7255 and/or

teacher approval.

**DESCRIPTION:** Topics to be covered include payroll, taxes notes, 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) 1/2 credit***PREREQUISITES:** Junior or senior.**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) 1/2 credit***PREREQUISITES:** Junior or senior.**DESCRIPTION:** 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) 1/2 credit***PREREQUISITES:** Open to all students.**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.**7559 Essential Skills***(2 semesters) 1/2 credit***PREREQUISITES:** Freshman concurrently enrolled in either Math 3119 or English 1119.**DESCRIPTION:** This course is designed to develop the skills that will help students achieve success in school. Topics will include organization, time management, learning style recognition, test taking skills, and homework strategies.

# Theology

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.

**DESCRIPTION:** 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

(1 semester – Fall) 1/2 credit

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

**DESCRIPTION:** 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

(1 semester – Spring) 1/2 credit

**PREREQUISITES:** Required for sophomores.

**DESCRIPTION:** 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

(1 semester – Fall) 1/2 credit

**PREREQUISITES:** Required for juniors.

**DESCRIPTION:** 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

(1 semester – Spring) 1/2 credit

**PREREQUISITES:** Required for juniors.

**DESCRIPTION:** 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.

## 8041, 8045, 8047 Sacraments

(1 semester – Fall) 1/2 credit

**PREREQUISITES:** Required for seniors.

**DESCRIPTION:** The purpose of this course is to help students understand that they can encounter Christ today in a full and real way in and through the sacraments, and especially through the Eucharist. Students will examine each of the sacraments in detail so as to learn how they may encounter Christ throughout life.

## 8042, 8046, 8048 World Religions

(1 semester – Spring) 1/2 credit

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

**DESCRIPTION:** The purpose of this course is to help the 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

(1 semester – Spring) 1/2 credit

**PREREQUISITES:** Required for all seniors not taking World Religions and teacher approval.

**DESCRIPTION:** 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.

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. Potential NCAA athletes need to review eligibility requirements. In addition to coursework, students must complete their service requirement before they may receive their class schedule. Should you have a question, please make an appointment to see your counselor or Mr. Joe White, Assistant Principal for Academic Services.

## STUDY HALL

**9909 Study Hall**  
(1 semester – Fall)

**9910 Study Hall**  
(1 semester – Spring)

**NOTE:** Courses lacking sufficient enrollment may be cancelled.

## LEADERSHIP

**9911 Leadership**  
(1 semester – Fall) 0.25 credit

**9912 Leadership**  
(1 semester – Spring) 0.25 credit

**PREREQUISITES:** Senior with department approval.

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

**DESCRIPTION:** 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, 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.

## Graduation Requirements

Listed below are the courses required for graduation. It is the responsibility of every student to know and understand the general information in this booklet. All students graduating from Saint Xavier will have the

## Required Subjects

- Theology 4 credits
- English 4 credits
- World Language 2 credits  
(Consecutive years in the same language)
- Mathematics 4 credits
- Science 3 credits  
(Biology, Chemistry and one additional lab science)
- Social Studies 3 credits  
(To include US History and World Civilization)
- Physical Education/  
Health Education 1 credit

• Fine Arts	1 credit
• Electives	4 credits
<b>TOTAL</b>	<b>26 units</b>

## Academic Promotion

To qualify for promotion a student must have earned units of credit according to the following schedule:

Sophomore standing	6 credits
Junior standing	13 credits
Senior standing	19 credits

## Suggestions for Course Scheduling

The standard college preparatory sequence includes these course sequences:

• English	4 units*
• Mathematics	4 units*
• Science	4 units
• World Languages	3-4 units
• Social Studies	3-4 units

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

## Service Requirement

The service requirement is designed to engage students in both direct and indirect service learning experiences.

All freshman students must complete six hours of service during the school year. The service program is designed around the freshman theology curriculum: The Revelation of God. Students will be required to complete a paper/project to process their experience. Their theology teacher will explain all details in class.

All sophomore students must complete 12 hours of service during the school year. Submission of a reflection paper is part of this requirement.

Junior students must complete 24 hours of service required for graduation during their junior year in order

to be eligible to return to Saint Xavier High School as a senior. Submission of a reflection paper is part of this requirement.

## Course Selection

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 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 a study hall within the first ten days of the course. 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

Once the school year has started and the published time frame for schedule changes has passed (first 10 days), a level change request should be considered the last step – not the first – in solving an academic problem. Students are expected to work with their counselor and classroom teacher to overcome any temporary setbacks in their grades. Before any change in class level will occur, students are expected to attempt to resolve the academic problem using the following process:

1. One-on-one contact with the subject teacher. Formal, documented contact should occur on a regular basis, either before or after school, for at least a three week period. During this time, the teacher will attempt to address the problem areas with the student. The student may also utilize or be assigned to required study during this time to improve his grade. The student may also request or be required to work with a tutor from the National Honor Society if it is determined to be beneficial.
2. Completion of all assignments, both in class and those assigned for homework, during this time period.
3. A review (phone call or formal meeting) of student performance after this time period with the parent(s) and student by the teacher, counselor and/or Assistant Principal.
4. A recommendation regarding the schedule change request is made after that review.

Most issues regarding a possible level change should be identified before the end of the first quarter. After

that, level adjustments should wait until the next course registration cycle in the spring of the current academic year and be implemented in the following academic year.

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. The final determination will be made by the Assistant Principals for Studies or Academic Services with assistance from the student's teacher and/or counselor.

**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. Up to the ninth week of class, a student may drop an AP class; however, the withdrawal will be noted on his transcript with a W for withdrawn. 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.

## Electives to Complete Graduation Requirements

Accounting

American Government

American History 1945-Present

Anatomy

Art: Visual Art Studio, Drawing & Painting, Ceramics, Graphic Design, Sculpture, iPhotography, Innovation Art

Broadcasting

Business Administration

Computer: HTML and WEB Page Design, Programming in Java, Computer Game Programming, Robotics, Computer Science

Computer Applications

Creative Writing 1, 2, 3, 4

Drama: Acting, Directing, Improvisation, Theatre

Economics

Engineering 1, 2

Environmental Science

Exercise Physiology

Film Study & Filmmaking

Forensic Science

Global Issues

Independent Research in Science

Introduction to Speech

Journalism 1, 2

Mechanical Drawing, CAD, 3D, Architectural Drawing

Music: Chorus, Digital Music, Guitar, Instrumental Music, Percussion / Keyboarding

Personal Finance

Philosophy

Photojournalism

Physical Education: Strength & Fitness

Psychology

Statistics

World Languages: Chinese, French, German and Spanish

Yearbook

## AP Offerings

Art History

Biology

Calculus AB, BC

Chemistry

Chinese

Comparative Government and Politics

Computer Science A, (Java)

Computer Science Principles

English Language

English Literature

Environmental Science

European History

French

German

United States Government and Politics

Human Geography

Macroeconomics

Music Theory

Physics 1

Physics C

Psychology

Spanish

Statistics

Studio Art: 2D, 3D and Drawing

U.S. History

## Honors Courses

The Saint Xavier Honors courses are designed to meet the needs of unusually talented 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.

## Grades and Reporting

### Grading Scale

Numerical grades are used for individual marking periods and exams. A letter system will be used for reporting final grades. Grades and their number equivalents are as follows:

98-100 = A+	78-80 = C
94-97 = A	76-77 = C-
92-93 = A-	74-75 = D+
90-91 = B+	72-73 = D
86-89 = B	70-71 = D-
84-85 = B-	Below 70 = F
81-83 = C+	

Each year the grading system is subject to evaluation by the faculty and administration.

### Academic Honors

- **PRINCIPAL'S LIST**  
Each grade must be an "A" (92-100)
- **FIRST HONORS**  
- All grades except one must be an "A"  
- The other grade must be a "B" (84-91)
- **SECOND HONORS**  
All grades must be a "B" (84-91) or better

## Quality Point Average and Class Rank

A student's rank in class is determined by his quality point average (QPA). The QPA is calculated by dividing the total number of quality points by the total number of significant credits. Units earned through pass/fail courses do not factor into a student's QPA. Due to the decreasing value of class rank as determined by colleges and universities, Saint Xavier no longer publishes this or includes it on transcripts. A student's class rank is a private matter and is only used for internal purposes by the school; however, rank will be provided to the guidance counselors who will, in turn, provide the information for those colleges who prefer to know class rank in the application process.

Honors and Advanced Placement courses are weighted. QPA and class rank are calculated at the end of each academic year and depend entirely upon the final letter grade earned in a course. A mid-year senior GPA and class rank will be computed for college admission purposes.

### Quality Point Scale

The following quality point scale is used to determine GPA.

100-98	A+	4	83-81	C+	2.8
97-94	A	4	80-78	C	2.5
93-92	A-	4	77-76	C-	2.0
91-90	B+	3.8	75-74	D+	1.8
89-86	B	3.5	73-72	D	1.5
85-84	B-	3.0	71-70	D-	1.0

One point will be added to the scale in each category for all honors courses.

Two points will be added to the scale in each category for all Advanced Placement (AP) courses.

## PlusPortals

Saint Xavier uses PlusPortals to facilitate timely communication among the school, parents, and students. Grade, behavioral and attendance records, and information related to classes can be found at [www.plusportals.com/saintx](http://www.plusportals.com/saintx) at any time, and report cards are updated at the end of each quarter.





# KENTUCKY EDUCATIONAL EXCELLENCE SCHOLARSHIP (KEES)

**The KEES Program awards those students with an annual GPA of 2.5 or higher according to the table below:**

GPA	AWARD	GPA	AWARD
4.00	\$500	3.20	\$300
3.90	\$475	3.10	\$275
3.80	\$450	3.00	\$250
3.75	\$437	2.90	\$225
3.70	\$425	2.80	\$200
3.60	\$400	2.75	\$187
3.50	\$375	2.70	\$175
3.40	\$350	2.60	\$150
3.30	\$325	2.50	\$125
3.25	\$312		

**A bonus award is earned for ACT scores 15 and higher according to the table below:**

ACT	AWARD	ACT	AWARD
28+	\$500	21	\$250
27	\$464	20	\$214
26	\$428	19	\$179
25	\$393	18	\$143
24	\$357	17	\$107
23	\$321	16	\$71
22	\$286	15	\$36

*Visit [kheaa.com](http://kheaa.com) 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 St. Xavier. Grades in these classes will be expressed using a 5.0 grading scale where an 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

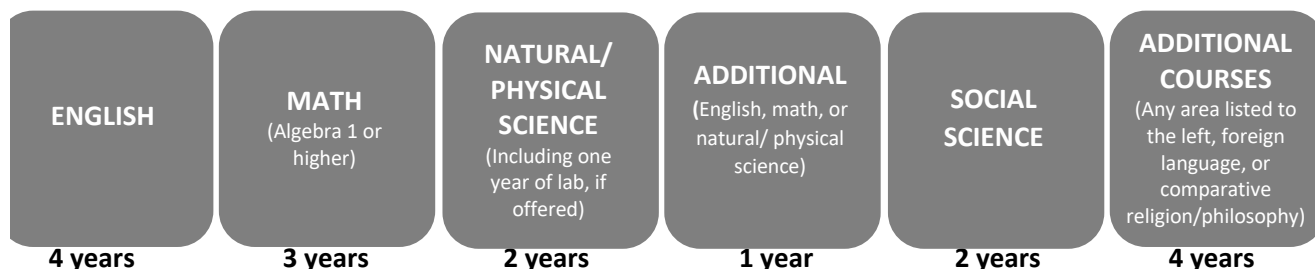
**Every student-athlete planning to attend a Division I or II college for the first time must be certified by the NCAA Eligibility Center. To view the latest rules and to register, go to [www.eligibilitycenter.org](http://www.eligibilitycenter.org). To determine eligibility, the NCAA looks at grades in your core classes and your test scores (ACT/SAT). Enter 9999 during ACT or SAT registration to ensure the testing agency reports your score directly to the NCAA Eligibility Center. Test scores on transcripts will not be used.**

## DIVISION 1 ACADEMIC REQUIREMENTS

College-bound student-athletes will need to meet the following academic requirements to practice, receive athletic scholarships, and/or compete during their first year.

### Core-Course Requirement

Complete 16 core courses in the following areas:



### Full Qualifier

- Complete 16 core courses.
  - Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school
  - Seven of the 10 core courses must be in English, math or natural/physical science.
- Earn a core-course GPA of at least 2.300.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale.
- Graduate high school.

### Academic Redshirt

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division I sliding scale.
- Graduate high school.

### Full Qualifier:

College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division I school.

### Academic Redshirt:

College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

### Nonqualifier:

College-bound student-athletes cannot practice, receive athletics scholarships or compete during their first year of enrollment at an NCAA Division I school.

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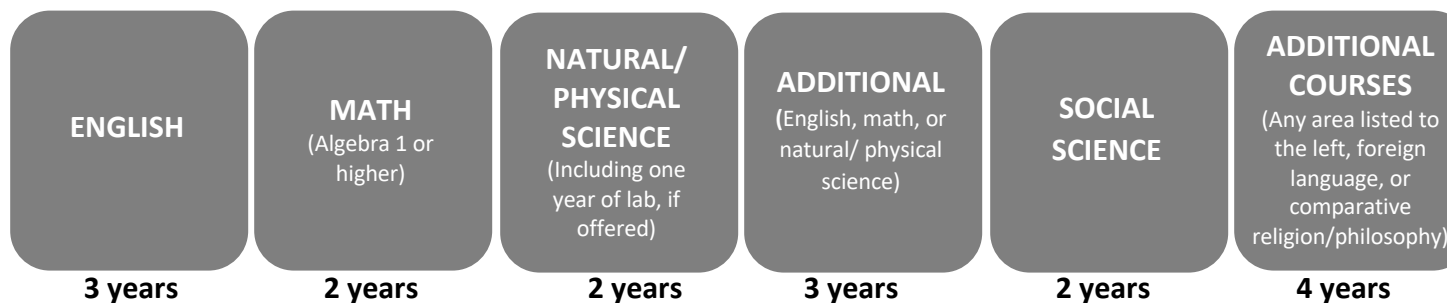
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# NCAA ELIGIBILITY REQUIREMENTS

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## DIVISION II ACADEMIC REQUIREMENTS

College-bound student-athletes first enrolling at an NCAA Division II school on or after August 1, 2018, need to meet new academic rules to practice, compete and receive athletics scholarships during their first year.



### FULL QUALIFIER

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.200.
- Earn the ACT/SAT score matching your core-course GPA on the Division II full qualifier sliding scale.
- Graduate high school.

### PARTIAL QUALIFIER

- Complete 16 core courses.
- Earn a core-course GPA of at least 2.000.
- Earn the ACT/SAT score matching your core-course GPA on the Division II partial qualifier sliding scale.
- Graduate high school.

### *Full Qualifier:*

College-bound student-athletes may practice, compete and receive athletics scholarships during their first year of enrollment at an NCAA Division II school.

### *Partial Qualifier:*

College-bound student-athletes may receive athletics scholarships during their first year of enrollment and may practice during their first regular academic term, but may NOT compete during their first year of enrollment.

### *Nonqualifier:*

College-bound student-athletes may not practice, compete or receive athletics scholarships during their first year of enrollment at an NCAA Division II school.



# NOTES

# NOTES

# COMMON MISTAKES (PLEASE REVIEW)

## STUDY HALL

Sign up for a study hall according to the semester that you prefer to take the study hall.

9909 – Fall Semester Study

9910 – Spring Semester Study

List "1/2" in the course duration column on your form for a study hall. If you prefer to take study for the whole year, you must sign up for 9909 (Fall) and 9910 (Spring) study halls.

## ALTERNATE COURSES

List alternate courses you are willing to take if your first choice is not available. If you do not provide alternates on your form, it will cost \$25 to change your schedule if you do not like the course St. X assigns you.

## COURSE NUMBERS

Sign up for courses by course number. Several of our courses share the same course name. In order to be placed in the proper class, pay close attention to course numbers.

## SPANISH CONVERSATION

If a junior or senior signs up for Spanish Conversation, list a "1" in the course duration column because this course meets all year. Students earn ½ credit for this course because it does not meet every day.

## REVIEW CHECKLIST BEFORE TURN IN ON FEBRUARY 19, 2020

- I have reviewed the prerequisites for my course selections.
- I have listed alternate course choices at the bottom of my registration form for all electives (non-required courses).
- The "course duration" column on my course registration form adds up to 7.
- I have a teacher signature for all classes that say, "Department approval or teacher approval required." I also have a teacher signature for all level changes.
- A parent has signed the form.
- I have signed the form.