



ST. EDWARD  
HIGH SCHOOL  
SPONSORED BY THE BROTHERS OF HOLY CROSS

***2016-2017***

***COURSE CATALOG***

# ST. EDWARD HIGH SCHOOL

## MISSION STATEMENT

St. Edward High School, a Catholic school in the Holy Cross tradition, educates the minds and hearts of young men to have the competence to see and the courage to act as men of faith.

We believe in:

- **FAITH:** Formation of young men in a Faith-based tradition that is God-centered and emphasizes the acceptance of each person
- **EXCELLENCE:** An ongoing commitment to excellence in academics, as well as co-curricular programs
- **RELATIONSHIPS:** A welcoming, family-oriented school community
- **SERVANT LEADERSHIP:** Servant Leadership as a way of life for all our community members

### PRINCIPAL

Dr. Frank O'Linn

### DEAN OF ACADEMICS & I.B. COORDINATOR

Mr. Stergios Lazos

### SCHOOL COUNSELORS

Mr. Thomas Carey, Director of Counseling

Mrs. Ashley Diehl

Mr. Michael Homza

Mr. Grant Wanner

### COLLEGE COUNSELORS

Mrs. Desiree Gould

Mr. Geoff Morton

Mrs. Moira O'Riordon, Director of College Counseling

Mr. Tom Splawski

### REGISTRAR

Mr. Tom Splawski

### OFFICE MANAGER

Mrs. Lois Weaver

**Counseling Center:** 216 221-4230

## COURSE SELECTION INTRODUCTION

Registration will be conducted during the months of February and March. Students and parents are encouraged to read this catalog thoroughly. Students should select their courses based on the information contained in this catalog, coupled with input from faculty and school counselors. Students and parents also need to recognize that course selections are final. All St. Edward High School students have been assigned a school counselor. Students have an opportunity to meet with their respective counselors during the course selection process. Counselors will use this meeting time to assist each student in choosing courses that will best enable him to meet the graduation requirements, while also affording him educational opportunities that will best match his academic abilities and future plans.

## ACADEMIC NOTES

1. ACADEMIC COURSE LOAD: All students are required to carry a minimum of six classes each semester. Freshmen usually carry seven classes per semester.
2. GRADUATION: Requirements are listed on page 4. All students must complete all required courses and earn a minimum of 24 credits to be eligible to graduate.
3. COURSE CHANGES: Before registering for courses for the year, students should first read this course catalog thoroughly and choose their courses carefully. Alternate choices are required for all elective courses. Once registration is completed, courses will be changed for the following conditions:
  - There is an error in the original schedule.
  - The student is academically misplaced.
  - There is a scheduling conflict among chosen courses.

*Note: A \$25.00 fee is assessed for any changes in a student's schedule that do not meet the above conditions.*

4. COURSE CANCELLATION: Individual elective courses may be cancelled due to insufficient enrollment.

### **GRADING SCALE**

97-100	=	A+
93-96	=	A
90-92	=	A-
87-89	=	B+
83-86	=	B
80-82	=	B-
77-79	=	C+
73-76	=	C
70-72	=	C-
67-69	=	D+
63-66	=	D
60-62	=	D-
0-59	=	F

### **QUALITY POINT SCALE**

Grade	Standard	Honors	A.P. or weighted I.B.
A+	4.3	4.8	5.3
A	4.0	4.5	5.0
A-	3.7	4.2	4.7
B+	3.3	3.8	4.3
B	3.0	3.5	4.0
B-	2.7	3.2	3.7
C+	2.3	2.8	3.3
C	2.0	2.5	3.0
C-	1.7	2.2	2.7
D+	1.3	1.3	1.3
D	1.0	1.0	1.0
D-	0.7	0.7	0.7
F	0.0	0.0	0.0

### **DETERMINING SEMESTER GRADES**

All official credit will be graded on a semester basis. Semester grades are determined by weighing the quarter one and quarter two grades at 85%; the semester examination is valued at 15%.

## GRADUATION REQUIREMENTS

### Class of 2017

Theology	4 credits	
English	4 credits	One credit of English required at the standard, honors, AP, or IB level each year (Electives do not count toward fulfillment of this credit.)
Mathematics	4 credits	
Science	3 credits	Biology, Chemistry, and Physics
Social Studies	3 credits	Required courses in World History, US History, Government, and one course that meets economic/financial literacy requirement
Second Language Acquisition	2 credits	2 years of study in the same language
Fine Arts	1 credit	½ of this credit typically earned in Grade 7 or 8
Health	½ credit	
Physical Education	½ credit	Exemption with sport or marching band participation for 2 seasons
Community Service		Completion charted through theology classes
Senior A.C.E. Program		Spring of senior year
OGT		Must pass all state-mandated tests
Elective courses	Varies	

### Class of 2018

Theology	4 credits	
English	4 credits	One credit of English required at the standard, honors, AP, or IB level (Elective courses do not count toward fulfillment this credit.)
Mathematics	4 credits	
Science	3 credits	Biology, Chemistry, and Physics
Social Studies	3-½ credits	Required courses in World History, Geography, US History, Government, and one course that meets economic/financial literacy requirement
Second Language Acquisition	3 credits	3 years of study in the same language
Fine Arts	1 credit	½ of this credit typically earned in Grade 7 or 8
Health	½ credit	
Physical Education	½ credit	Exemption with sport or marching band participation for 2 seasons
Community Service		Completion charted through theology classes
Senior A.C.E. Program		Spring of senior year
OGT		Must pass all state-mandated tests
Elective courses	Varies	

### Classes of 2019 and 2020

Theology	4 credits	
English	4 credits	One credit of English required at the standard, honors, AP, or IB level (Elective courses do not count toward fulfillment this credit.)
Mathematics	4 credits	
Science	3 credits	Biology, Chemistry, and Physics
Social Studies	3 credits	Required courses in World History, US History, Government, and one course that meets economic/financial literacy requirement
Second Language Acquisition	3 credits	3 years of study in the same language
Fine Arts	1 credit	½ of this credit typically earned in Grade 7 or 8
Health	½ credit	
Physical Education	½ credit	Exemption with sport or marching band participation for 2 seasons
Community Service		Completion charted through theology classes
Senior A.C.E. Program		Spring of senior year
OGT		Must pass all state-mandated tests
Elective courses	Varies	

### Classes of 2017-2020 I.B. Diploma Candidates

Theology	4 credits	
English	4 credits	
Mathematics	4 credits	
Science	3-4 credits	Number of credits varies depending upon IB course choices
Social Studies	3-4 credits	Number of credits varies depending upon IB course choices
Second Language Acquisition	4 credits	
Fine Arts	1 credit	½ credit typically earned in Grade 7 or 8
Health	½ credit	
Physical Education	½ credit	Exemption with sport or marching band participation for 2 seasons
Theory of Knowledge (TOK)	1 credit	begins in junior year
Extended Essay		begins in junior year
CAS Program		
Community Service		Completion charted through theology classes
Senior A.C.E. Program		Spring of senior year
OGT		Must pass all state-mandated tests
Elective courses	Varies	

## **ADVANCED COURSE OFFERINGS**

### **Honors Courses**

Honors English 1  
Honors English 2  
Honors International Studies  
Honors US History and Government  
Honors Algebra 2  
Honors Geometry  
Honors Geometry with Statistics and Vectors  
Honors Precalculus  
Honors Vector Precalculus  
Honors Biology  
Honors Chemistry  
Honors Physics  
Honors French 1, 2, 3, and 4  
Honors Latin 1, 2, and 3  
Honors Spanish 1, 2, and 3

### **Advanced Placement (AP) Courses**

AP English Language and Composition  
AP English Literature and Composition  
AP Human Geography  
AP US History  
AP US Government and Politics  
AP Comparative Government and Politics  
AP Macro/Microeconomics  
AP Computer Science A  
AP Calculus AB  
AP Calculus BC  
AP Statistics  
AP Biology  
AP Chemistry  
AP Physics C: Electricity and Magnetism  
AP Latin  
AP Spanish Language and Culture

### **International Baccalaureate (IB) courses**

IB Language and Literature SL  
IB Literature HL  
IB French SL  
IB Latin SL and HL  
IB Mandarin Chinese Ab Initio SL  
IB Spanish SL  
IB History of the Americas/20<sup>th</sup> Century World History HL  
IB 20<sup>th</sup> Century World History SL  
IB Biology SL  
IB Chemistry HL  
IB Physics SL  
IB Chemistry HL  
IB Design Technology SL and HL  
IB Physics SL and HL  
IB Mathematical Studies SL  
IB Mathematics SL and HL  
IB Film Studies SL and HL  
IB Music Perspectives SL  
IB Theory of Knowledge

Note: SL= Standard Level; HL=Higher Level

**Cross-curricular courses that may be taken to fulfill Fine Arts Credit:** Fundamentals of Design II, IB Design Technology SL & HL

## **The College Credit Plus Program**

The College Credit Plus Program has been established to permit high school students to earn college and high school graduation credit through the successful completion of college courses. The program is intended to provide expanded opportunities for appropriately qualified high school students to experience coursework at the college level. College courses should supplement the broad academic preparation needed by high school students. These courses would be in addition to AP and IB courses which also provide students with an opportunity to attain college credit. Selected courses at St. Edward qualify as College Credit Plus courses and will earn credit towards both high school graduation and college credit. Courses can also be taken at the college/university. These courses must be enrichment college courses and not remedial. Students must also meet the college admission criteria.

Please note that students in non-public schools are not guaranteed funding through College Credit Plus. But if funding is not approved, families can still pay for the class for a nominal fee and will still receive college credit.

Contact your school counselor for more details on how to apply.

### **College Credit Plus courses available at St. Edward High School**

#### English

- College Composition I (available to seniors)
- Introduction to Fiction (available to seniors)
- Humanities I (available to juniors and seniors)
- Humanities II (available to juniors and seniors)

#### Language

- Introduction to Italian (available to juniors and seniors)

#### Pre-Engineering

- Digital Control Systems (available to sophomores, juniors, and seniors)

#### Fine Arts

- Ceramics I (available to sophomores, juniors, and seniors)



## DEPARTMENT OF ENGLISH

### The following English courses are required:

Grade 9	English 1 <u>or</u> Honors English 1
Grade 10	English 2 <u>or</u> Honors English 2
Grade 11	<u>Non-IB Diploma Candidates:</u> English 3 <u>or</u> AP English Language and Composition <u>or</u> IB Literature HL  <u>IB Diploma Candidates:</u> IB Literature HL <u>or</u> IB Language and Literature SL
Grade 12	<u>Non-IB Diploma Candidates:</u> English 4 <u>or</u> AP English Literature and Composition <u>or</u> College Composition I <u>and</u> Introduction to Fiction  <u>IB Diploma Candidates:</u> IB Literature HL <u>or</u> IB Language and Literature SL

### English 1

Course 011

*Grade 9 – 2 semesters – ½ credit each semester*

In this course, students gain basic skills in composition, grammar, literature, and vocabulary. Instruction in composition includes formulating a thesis statement and mastering the five-paragraph essay. An introduction to research methods and MLA format is also included. Opportunities for writing include expository essays, persuasive essays, descriptive essays, narratives, and creative writing. The proper use of grammar is emphasized as a component of composition instruction. Instruction in literature includes basic elements such as theme, plot, character, and setting, as well as literary techniques and styles. Short stories, plays, novels, and poetry are analyzed, as literature and composition are blended throughout the course. Regular vocabulary and spelling lessons are administered.

### Honors English 1

Course 010

*Grade 9 – 2 semesters – ½ Honors credit each semester*

In this course, students gain advanced skills in composition, grammar, literature, and vocabulary. Instruction in composition includes formulating and supporting an original thesis statement. Mastery of the five-paragraph essay is the focus of writing instruction, and an introduction to research methods and MLA format is also included. Opportunities for writing include expository essays, persuasive essays, descriptive essays, narratives, and creative writing. The proper use of grammar is emphasized as a component of composition instruction. Instruction in literature includes basic elements such as theme, plot, character, and setting, as well as literary techniques and styles. Short stories, plays, novels, and poetry are analyzed, as literature and composition are blended throughout the course. Critique and analysis are advanced at this level. Regular vocabulary and spelling lessons are administered.

## **English 2**

Course 021

*Grade 10 – 2 semesters – ½ credit each semester*

This course builds upon the composition, grammar, literature, and vocabulary skills acquired in the freshman year. A variety of compositions, including both expository and persuasive essays, will be written. Composition instruction emphasizes the writing process, and includes a major research project, with an emphasis on research methods and skills. The proper use of grammar is emphasized through formal lessons and as a component of composition instruction. Instruction in literature includes a variety of works and genres. Vocabulary is studied throughout the year.

## **Honors English 2**

Course 020

*Grade 10 – 2 semesters – ½ Honors credit each semester*

*Application and department approval required*

This course builds upon the composition, grammar, literature, and vocabulary skills acquired in the freshman year. In addition to reading and analyzing a variety of literary works and genres, students will study schools of literary criticism. Presuming mastery of the five-paragraph essay, instruction in composition includes experimentation with form and style in order to increase effectiveness. A variety of compositions are assigned, including literary analysis and a major research paper. The expectations in terms of analytical thinking, interpretive skills, and writing ability are high at this level. The proper use of grammar is emphasized through formal lessons and as a component of composition instruction. The amount of reading, writing, and vocabulary in this course is significantly greater than in non-honors English.

## **English 3**

Course 035

*Grade 11 – 2 semesters – ½ credit each semester*

The main focus of this course is the reading and analysis of our American literary heritage from its beginnings to the present, emphasizing outstanding figures and works of recognized quality for analysis and enrichment. A formal review of selected grammar and usage topics is conducted periodically throughout each term. Composition work includes exposition, argumentation, literary analysis, and the personal essay. Research methods and skills are reinforced. In addition, a unit of study within the course is devoted to developing test-taking strategies designed to maximize the students' scores on the verbal section of the SAT through the implementation of components including intense practice and drill work. Vocabulary is studied throughout the year.

## **AP English Language and Composition**

Course 031

*Grade 11 – 2 semesters – ½ AP credit each semester*

*Application and department approval required*

The main focus of this course is the reading and analysis of our American literary heritage from its beginnings to the present, emphasizing outstanding figures and works of recognized quality for analysis and enrichment. Composition work includes exposition, argumentation, literary analysis, and the personal essay. Research methods and skills are reinforced. Fulfillment of writing assignments in this course requires significantly more work than in English 3, with a greater emphasis placed on style and depth. In addition, a unit of study within the course is devoted to developing test-taking strategies designed to maximize the students' scores on the verbal section of the SAT and the AP Language and Composition exam. This course is advanced, and is recommended for highly motivated students with strong study skills. Students are required to take the AP exam in May.

## **IB Language and Literature SL**

Course IB101SL/IB102SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

In this course, students study both literary texts, such as novels and plays, and also non-literary texts, such as graphic novels and films. The study of texts is central to an active engagement with language and culture and, by extension, to how one sees and understands the world. Students are encouraged to question the meaning generated by language and texts, which is rarely straightforward and unambiguous. Focusing closely on the language of the texts studied and becoming aware of the role that each text's wider context plays in shaping the text's meaning are central to this course. Some of the texts studied will be works in translation, thereby helping students gain a global perspective by promoting an insight into, and an understanding of, the different ways in which cultures influence and shape the experiences of life common to all humanity. The response to this study of texts is through oral and written communication, thus enabling students to develop and refine their command of the English language.

## **IB Literature HL**

Course IB113HL/IB114HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

In this course, students study a wide range of literature and are encouraged to appreciate the artistry of literature and to develop an ability to reflect critically on their reading. Works are studied in their literary and cultural contexts, through close study of individual texts and passages, and by considering a range of critical approaches. Students study texts from a variety of genres, including drama, poetry, and prose nonfiction, with a special emphasis on the novel. Students will also study works in translation, which are especially important in introducing students, through literature, to other cultural perspectives. The response to this study of literature is through oral and written communication, thus enabling students to develop and refine their command of the English language.

## **English 4**

Course 045

*Grade 12 – 2 semesters – ½ credit each semester*

The main focus of this course is the reading and analysis of British and world literature from its beginnings to the present, emphasizing outstanding figures and works of recognized quality for analysis and enrichment. Composition work includes exposition, argumentation, literary analysis, and the personal essay. Research methods and skills are reinforced, and all students are required to write at least two research papers. Public speaking skills are also reinforced through both formal and extemporaneous student presentations and speeches.

## **AP English Literature and Composition**

Course 040

*Grade 12 – 2 semesters – ½ AP credit each semester*

*Application and department approval required*

The main focus of this course is the reading and analysis of both classic and contemporary literature, emphasizing outstanding authors and major works in all genres. Research methods and skills are reinforced, and all students are required to write two major research papers. Classes are conducted seminar-style, and active class participation on a consistent basis is expected. This course is advanced, and is recommended for highly motivated students with strong study skills. Students are required to take the AP exam in May.

## **College Composition I**

Course ENGL161

*Grade 12 – 1 semester – 1 credit*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Lorain County Community College (LCCC) is also a requirement.*

*College Composition I and Introduction to Fiction are required for any student not enrolled in English 4 or AP English Literature and Composition*

An introduction to fundamental college-level skills in academic reading and writing. Summary, analysis, synthesis, and research documentation are emphasized, along with critical thinking and collaborative learning. English Core Course.

### **Introduction to Fiction**

Course ENGL255

*Grade 12 – 1 semester – 1 credit*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Lorain County Community College (LCCC) is also a requirement.*

*Prerequisite: College Composition I*

*College Composition I and Introduction to Fiction are required for any student not enrolled in English 4 or AP English Literature and Composition*

The study of short stories and novels to acquaint the general student with important themes and critical perspectives applicable to fiction. Humanities Core Course.

### **Creative Writing**

Course 070

*Grades 10-12 – 1 semester – ½ credit*

This course focuses on the fundamentals of composition and storytelling while maintaining a flexible understanding of what a text is or can be. It is designed to enable students to become better poets, dramatists, songwriters, and/or writers of short fiction. Regardless of whether the student aims to become a poet who is able to deftly handle metaphors and concrete imagery, a comic book artist who wishes to develop a more acute sense of how to marry graphics to text, or a raconteur who can move an audience through his characters and stories, this course will provide the student with the skills to communicate and express himself with greater passion and focus.

### **Public Speaking**

Course 071

*Grades 9-12 – 1 semester – ½ credit*

In this introductory course, students have an opportunity to gain skill, self-confidence, and fluency in public speaking. Students develop an understanding of both basic communication principles and public speaking strategies by presenting speeches that both inform and persuade. Delivery techniques and theories of impromptu public address are introduced and practiced through a series of extemporaneous exercises.

### **Standardized Test Preparation**

Course 072

*Grades 10-12 – 1 semester – ½ credit*

The purpose of Standardized Test Preparation is to help students of all levels of academic achievement improve their test-taking potential to maximize test results. Students will learn strategies, expectations and content information about the PSAT and SAT exams as well as the ACT. Though listed in the English department, the course will cover the math and science components of these exams along with reading and writing.

### **Studies in Tolkien**

Course 053

*Grades 10-12 – 1 semester – ½ credit*

This elective course examines the role of fantasy literature through the works of J.R.R. Tolkien. Major works to be examined include Tolkien's *Lord of the Rings* trilogy and *The Silmarillion*. Short works to be examined include a variety of Tolkien's prose, poetry, essays, and samples of his whimsical yet formative approach to linguistic studies. The course examines Tolkien's influence on literary theory, language studies, theology, and the epic fantasy. In addition, the

course acts as an introduction to literature and theory pertaining to the genre of fantasy literature; thus, previous interest in and knowledge of fantasy literature is not required. Assessment for the course is based on Socratic seminar and composition with a research project and essay due at the end of the semester.

### **Film Studies**

Course 052

*Grades 11-12 – 1 semester – ½ credit*

Movies cast a spell over us by transporting us to an imaginary world. This elective course will screen a representative series of films. Students will be asked to respond to these films by composing a series of short papers and a final long paper.

### **Introduction to Humanities I: From the Ancient World to the Renaissance**

Course 074

*Grades 11-12 – 1 semester – ½ credit*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Lorain County Community College (LCCC) is also a requirement.*

This course provides an introduction to the arts and humanities through study of significant works of Western culture from the ancient world to the Renaissance. Areas of study include philosophy, literature, painting, sculpture, architecture, and music. Instruction will follow the Socratic example of generating discussion through dialectical inquiry.

### **Introduction to Humanities II: From the Early Modern Period to the 20<sup>th</sup> Century**

Course 075

*Grades 11-12 – 1 semester – ½ credit*

*Prerequisite: Introduction to Humanities I*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Lorain County Community College (LCCC) is also a requirement.*

This course provides an introduction to the arts and humanities through study of significant works of Western culture from the early modern period to the 20<sup>th</sup> century. Areas of study include philosophy, literature, painting, sculpture, photography, film, architecture, and music. Instruction will follow the Socratic example of generating discussion through dialectical inquiry.

### **Writing for Publication**

Course 060

*Grade 10-12 – 1 semester – ½ credit*

This course is designed to prepare students in written communication, journalism, and graphic design required for publication. This course includes both theory and practice in identifying, researching, and writing articles; editing materials for publication; and designing graphic layouts. Students must actively engage in the preparation of one of the school's student publications: *The Edsman* (newspaper), *Edwardian* (yearbook), or *Flight* (literary arts magazine). Specific roles may vary; faculty advisers will determine the specific duties and requirements for earning credit.

### **Reading Development**

Course 091

*Grade 9 – 2 semesters – ½ credit each semester*

This course is designed to improve the student's reading and comprehension skills. Areas stressed are comprehension, vocabulary, study skills, flexibility of reading rate, critical reading skills, and independent reading. In addition, skills in objective and essay test taking and the organization and implementation of a plan of study for the student's various classes are emphasized. Note: Students enrolled in this course do so in lieu of a foreign language freshman year. Foreign language will then begin in the sophomore year.

## DEPARTMENT OF SOCIAL STUDIES

**The following Social Studies courses are required:**

Grade 9	World History <u>or</u> Honors International Studies
Grade 10	Honors US History and Government (for pre-IB candidates only)
Grade 11	<p><u>Non-IB Diploma Candidates:</u> US History <u>or</u> AP U.S. History <u>or</u> IB History of the Americas HL</p> <p><u>IB Diploma Candidates:</u> IB Group 3: one 1- or 2-year course</p>
Grade 12	<p><u>Non-IB Diploma Candidates:</u> AP American Government &amp; Politics <u>or</u> IB 20<sup>th</sup> Century World History HL <u>or</u> American Government <u>and</u> one of the following Financial Literacy* Courses</p> <ul style="list-style-type: none"> <li>• Economics</li> <li>• Business &amp; Entrepreneurship</li> <li>• AP Comparative Government and Politics</li> <li>• AP Macro/Microeconomics</li> </ul> <p>(*unless Financial Literacy course was taken sophomore or junior year)</p> <p><u>IB Diploma Candidates:</u> 2<sup>nd</sup> year of Group 3 – only if taking HL</p>

### World History

Course 112

*Grade 9 – 2 semesters – ½ credit each semester*

This course examines the development of human populations from the Renaissance to modern day. Students will trace the evolution of social, political, economic, and religious systems and examine the role of the environment in determining and affecting the progression of culture. Students will also explore topics such as innovation and technological change and their impact on cultural development. Using primary and secondary sources, students will be expected to comprehend, analyze, and evaluate through a variety of written and project-based assessments.

### Honors International Studies

Course 115

*Grade 9 – 2 semesters – ½ Honors credit each semester*

This is a survey course that focuses on identification and evaluation of the patterns in World History that continue to influence present world society. Emphasis will be placed on analyzing and understanding historical themes such as poverty, classism, militarism, self-determination, trade, and political, social and industrial development. Using both primary and secondary sources, students will be expected to demonstrate their knowledge of these themes and their current impact using both oral and written assignments. Students will also be required to participate in a Model United Nations simulation in the fall of the year.

### Honors United States History and Government

Course 125

*Grade 10 – 2 semesters – ½ Honors credit each semester*

*Department approval required; required of all students intending to pursue the IB diploma*

This course focuses on both the history and the government of the United States during the 19<sup>th</sup> and 20<sup>th</sup> centuries. Students will continue to enhance their skills of gathering, sorting and evaluating historical and political evidence. Through written and oral expression, students must demonstrate their ability to recognize, organize, analyze and appreciate selected historical events and their political, economic and social consequences.

### **Introduction to Human Geography**

Course 136

*Grade 10-12 – 1 semester – ½ credit*

Why do people study geography? This course will explore the study of patterns and processes that have shaped the human experience. Students will learn to use spatial concepts and landscape to analyze human socioeconomic organization and its environmental consequences – in other words, why people choose to live in certain locations. Students will also investigate the dynamics of global interactions among nations and regions. There will be a focus on learning the methods and tools geographers use during their research and application.

### **AP Human Geography**

Course 162

*Grades 10-12 – 2 semesters – ½ AP credit each semester*

*Requirement: 'B' average or better in English and Social Studies classes*

*Department approval required*

This course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth's surface. Students will learn to employ spatial concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They will also learn about the methods and tools geographers use in their research and applications. Students are required to take the AP exam in May.

### **United States History**

Course 132

*Grade 11 – 2 semesters – ½ credit each semester*

The purpose of this course is to introduce the major phases of the political, economic, social, geographical, and historical development of the United States from post-Reconstruction through World War II. Students will be required to demonstrate comprehension of the knowledge gained and to apply content through the utilization of higher order thinking skills. The course will also cover events from the Cold War through the aftermath of 9/11, examining the social, political, economic, geographical, and historical factors that have shaped this country. Students will read and analyze a number of primary source documents as well as write several essays.

### **AP United States History**

Course 130

*Grade 11 – 2 semesters – ½ AP credit each semester*

*Requirement: 'B' average or better in English and Social Studies classes*

*Department/counselor approval required*

This course is designed to provide students with the analytical skills and factual knowledge necessary to deal critically with the materials and problems of United States history. The course seeks to develop students' capacity to assess historical materials and to weigh the evidence and interpretations presented in historical scholarship. To that end, the course is both reading and writing intensive, and draws from a number of supplementary documents, essays, and works of interpretive history. Students are required to take the AP exam in May.

## **American Government**

Course 121

*Grade 12 – 1 semester – ½ credit*

This one-semester course is a survey of the events, issues, and individuals that have shaped American government. It includes a survey of the historical underpinnings of our government, as well as a detailed analysis of the Constitution and the evolution of party politics, executive power, popular democracy, and our system of checks and balances. All three branches of the government will be studied in depth.

## **Economics**

Course 141

*Grades 11-12 – 1 semester – ½ credit*

This introductory survey course provides the student with exposure to numerous economic principles. The course begins with a general overview of economics as the science of cost, benefit, and choice. Microeconomic concepts are subsequently introduced in the context of how individual choices affect supply and demand and the organization and development of individual enterprises and markets. The course also explains macroeconomics through the examination of Gross Domestic Product, unemployment, inflation, recession and depression, banking, and monetary and fiscal policy. A unit on personal finance is also included.

**Note:** This course meets the economic/financial literacy graduation requirement.

## **AP U.S. Government & Politics**

Course 140

*Grade 12 – 2 semesters – ½ AP credit each semester*

*Requirement: 'B' average or better in English and Social Studies classes*

*Department approval required*

This college-level survey course covers the constitutional underpinnings of the United States government, the institutions of national government, and the formation of public policy. Students will be required to take the AP exams in May.

**Note:** This course meets the economic/financial literacy graduation requirement.

## **AP Macro/Microeconomics**

Course 146

*Grades 11- 12 – 2 semesters – ½ AP credit each semester*

*Requirement: 'B' average or better in English and Social Studies classes*

*Department approval required*

The purpose of this course in economics is to give students a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, as well as, an understanding of the economic system as a whole. The course places primary emphasis on the nature and functions of product markets and includes the study of factor markets and the role of government in promoting greater efficiency and equity in the economy. It also focuses on the study of national income and price-level determination, and develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students will use graphs, charts, and data to analyze, describe, and explain economic concepts. Students will be required to take the AP exam in May.

**Note:** This course meets the economic/financial literacy graduation requirement.

## **AP Comparative Government and Politics**

Course 150

*Grade 12 – 1 semester – ½ AP credit*

*Requirement: 'B' average or better in English and Social Studies classes*

*Department approval required*

Students will analyze the political and economic systems of six countries: China, Great Britain, Iran, Mexico, Nigeria and Russia. Students will be required to take the AP exam in May.



**Note:** This course meets the economic/financial literacy graduation requirement. This course does not replace the government requirement.

**IB History of the Americas/20<sup>th</sup> Century World History HL** Course IB303HL/IB304HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

*Requirement for non-IB Diploma candidates: 'B' average in English and Social Studies*

Within this course students will demonstrate a historical understanding of the Americas, including the United States, Canada and Latin America, through a comparative multi regional analysis of cultural, socioeconomic and political issues. In the second year, students will conduct an in-depth study of the causes, practices, and effects of war, the rise of the single party states, and conflict and intervention, with an in-depth investigation of Kosovo and Rwanda in the 1990s. Students will be required to comprehend, analyze, evaluate, and integrate source material critically as historical evidence through a series of internal and external assessment.

**IB 20<sup>th</sup> Century World History SL** Course IB302SL

*Grade 11-12 – 2 semesters (1 year) – ½ IB credit each semester*

This one-year IB course will focus on events, individuals and ideas that have shaped the human experience. This course will analyze 20th Century World History with an emphasis on the causes, practices and effects of war, the rise of single-party states, and conflict and intervention, with an in-depth investigation of Kosovo and Rwanda in the 1990s. Students will be required to comprehend, analyze, evaluate, and integrate source material critically as historical evidence through a series of internal and external assessment.

**Business and Entrepreneurship** Course 155

*Grades 10-12 – 1 semester – ½ credit*

Business drives the economic pulse of the world, and this course is a comprehensive introduction for students to its key operations. It will provide an overview and foundational understanding of such topics as marketing, business writing, advertising, manufacturing, and sales, as well as a general introduction to financial planning. The course will include general strategies and practices that businesses implement to stay ahead in a competitive world. The knowledge that students attain from this course will give them a base foundation to understand business and the ability to excel in more focused and concentrated business studies.

**Note:** This course meets the economic/financial literacy graduation requirement.

**Advanced Business and Entrepreneurship** Course 156

*Grades 10-12 – 1 semester – ½ credit*

*Prerequisite: Business and Entrepreneurship*

*Interview with Mr. Keehan required*

Upon completion of Business and Entrepreneurship students will be immersed into a deeper level of business operations. Topics will include the history of business and entrepreneurship in America, business concepts, market planning, financial planning and cost accounting, an introduction to international business, and starting their own personal business. These business models will prove to be a valuable resource for students who plan to study business in college or to start their own businesses.

**Law** Course 178

*Grades 11-12 – 1 semester – ½ credit*

This course introduces students to the inner workings of the American justice system. Using a case-study approach, students will gain an understanding of legal procedure, as well as develop a greater understanding and appreciation for the law, court procedures, and the

judicial system. This course will also survey the evolution of the civil rights and personal liberties embodied in the first ten amendments of the Constitution. Using a case study approach, students will examine actual Supreme Court cases in order to gain an understanding of the origins, meanings, and applications of the Bill of Rights.

### **Psychology**

Course 161

*Grades 11-12 – 1 semester – ½ credit*

This survey course studies human behavior and will examine the six contemporary psychological perspectives: biological, cognitive, humanistic, psychoanalytic, learning, and socio-cultural. Major areas covered are learning, memory, growth and development, emotions, personality, mental illness, psychotherapy, intelligence, sensation and perception.

### **Student Leadership**

Course 186

*Grades 10-12 – meets Thursdays before school August-June – ½ credit*

Students will explore, develop, and exercise their own abilities and skills as servant leaders, with structure provided by the Charism and Spirituality of the Congregation of Holy Cross. This is a project-based course which will focus on goal setting and event planning for all-school assemblies, school spirit events, and other St. Edward High School activities. Students will be trained in community development, including conflict resolution, facilitation of teamwork and group dynamics, and anti-bullying techniques. This course is required of all members of Student Government.

**Note:** Students may take this course more than once.

## DEPARTMENT OF MATHEMATICS

**Four years of Mathematics are required. Courses will vary according to academic ability and performance.**

### Course Scope and Typical Sequence

<u>Freshman Year</u>	<u>Sophomore Year</u>	<u>Junior Year</u>	<u>Senior Year</u>
Pre-Algebra →	Algebra 1 →	Geometry →	Algebra 2
Algebra 1 →	Geometry/Stats →	Algebra 2 →	Precalculus or Trig/Math Topics or IB Math Studies SL
Adv Alg 1/Acc Geo →	Honors Algebra 2 →	Honors Precalc →	AP Calculus AB or AP Statistics or Data Science or IB Mathematics SL
Honors Algebra 2 →	Honors Geometry →	Honors Precalc →	AP Calculus AB or AP Statistics or Data Science or IB Mathematics SL
Honors Algebra 2 →	Honors Geo/Stats →	H Vector Precalc →	AP Calculus BC
Honors Algebra 2 →	Honors Geo/Stats →	IB Mathematics HL →	IB Mathematics HL

#### Algebra 1

Course 211

*Grade 9 – 2 semesters – ½ credit each semester*

This course presents the basic structure of our number system through the use of modern mathematical terminology and methods. The basic topics included are the real number system, operations with real numbers, using variables, solving equations, inequalities, graphing linear functions, exponents, polynomials, rational expressions, radicals, and quadratic functions. Stress is placed upon the understanding of concepts, and solving practical problems from everyday life and science. A graphing calculator is required. (TI-83/84 Plus is the school's standard calculator.)

#### Algebra 1

Course 212

*Grade 9-10 – 2 semesters – ½ credit each semester*

This course presents the basic structure of our number system through the use of modern mathematical terminology and methods, but at a slower pace and with less rigor than Algebra 1, course 211. Topics included are the real number system, operations with real numbers, using variables, solving equations, inequalities, graphing linear functions, exponents, polynomials, rational expressions, radicals, and quadratic functions. Stress is placed upon the understanding of concepts, and solving practical problems from everyday life and science.

### **Advanced Algebra 1 and Accelerated Geometry**

Course 209

*Grade 9 – 2 semesters – ½ credit each semester*

This is a full year of intensive development of algebraic and geometric skills. It is designed for students who have a high aptitude in math but have not completed a rigorous course in Algebra 1. The first semester will be an intensive study of Algebra 1. The second semester will be an intensive study of Geometry with emphasis on problem solving for college entrance exams. Upon completion of this course, students are expected to take the Honors Algebra 2 course in their sophomore year. A graphing calculator (the TI-83/84 is the math department's choice) is required for the course.

**Note:** Students are expected to achieve at a level of B- (80%) or higher in the first semester to move on to Accelerated Geometry in the second semester. Those not achieving at B- or higher will be moved to Algebra I (Course #211) for the second semester to achieve mastery of Algebra.

### **Honors Algebra 2**

Course 210

*Grade 9-10 – 2 semesters – ½ Honors credit each semester*

Designed for the incoming freshman with a strong math aptitude who has completed a full year course in Algebra 1, this course is a rigorous development of Algebra 2, with a strong emphasis on proof and logic. Areas covered include solving equations and inequalities; solving systems; factoring polynomials; simplifying rational expressions; working with radicals and quadratic, polynomial, exponential, and logarithmic functions; complex numbers, and conic sections. A graphing calculator is required. (TI-83/84 Plus is the school's standard calculator.) A placement exam is required.

### **Pre-Algebra**

Course 214

*Grade 9 – 2 semesters – ½ credit each semester*

This course thoroughly develops basic math concepts, in preparation for taking Algebra I in the sophomore year. Review and practice reinforce the essential math skills.

### **Geometry with Statistics**

Course 221

*Grade 10 – 2 semesters – ½ credit each semester*

This college-preparatory course covers the fundamentals of Euclidean Geometry. Topics include linear and angle relations, triangle relationships, the Pythagorean Theorem, right triangle trigonometry, polygons, circular relations, and solid geometry. There will be special emphasis on review for College Board mathematics as part of this course. The course also includes an introduction to statistics that includes probability, probability distributions, and hypothesis testing. A variety of mathematical analyses will be explored. A graphing calculator (TI-83/84 Plus suggested) will be required.

### **Geometry**

Course 222

*Grade 10-11 – 2 semesters – ½ credit each semester*

This basic course covers the fundamentals of Euclidian Geometry. Topics include linear and angle relations, triangle relationships, the Pythagorean Theorem, right triangle trigonometry, polygons, circular relations, and solid geometry. Students are encouraged to have a graphing calculator for this course.

### **Honors Geometry**

Course 220

*Grade 10 – 2 semesters – ½ Honors credit each semester*

This course utilizes a project-based approach to help students recognize and apply geometric concepts and relationships in the real world. Students will also develop logical reasoning skills by learning to formulate fluent, mathematically-sound arguments. Included in the course are introductory topic extensions in the fields of Physics and Engineering, Probability and Statistics, and Calculus. A TI-83/84 Plus calculator is required.

### **Honors Geometry with Statistics and Vectors**

Course 226

*Grade 10 – 2 semesters – ½ Honors credit each semester*

*Prerequisite: Honors Algebra 2*

*Department approval required.*

This course develops inductive and deductive reasoning skills through the use of direct and indirect methods of proofs. Algebra 2 topics, such as rational, radical, absolute value, and exponential functions, along with matrices are included in this course. Geometry and trigonometry are included in this course in order to introduce students to the behavior of circular functions and vectors. Statistics topics include studying both continuous and discrete distributions like the binomial, geometric, Poisson and normal distribution. A TI-83/84 Plus calculator is required.

### **Algebra 2**

Course 231

*Grade 10-12 – 2 semesters – ½ credit each semester*

A rigorous development of algebra with a strong emphasis on proof and logic. Areas covered include working with variables, solving linear equations and inequalities, solving systems of sentences, factoring polynomials, finding roots of polynomial functions, simplifying rational expressions, working with radicals and quadratic functions, complex numbers, solving exponential and logarithmic equations and analyzing these functions, and conic sections. A TI-83/84Plus calculator is required. Must have a C in Algebra 1.

### **Algebra 2**

Course 232

*Grades 10-12 – 2 semesters – ½ credit each semester*

This basic course contains the topics of a conventional Algebra 2 course including equations and inequalities, linear relations and functions, systems of equations and inequalities, polynomials, working with quadratic equations, quadratic relations and functions, and conic sections. A TI-83/84Plus calculator is required.

### **Precalculus**

Course 241

*Grades 11-12 – 2 semesters – ½ credit each semester*

The study of the translation of functions, families of functions including odd and even functions, polynomial, rational, exponential, and logarithmic functions, inverses, circular trigonometric functions, trig identities and proofs, polar coordinates, and complex number theory. The end of the course starts a study of limits, which leads the student into the appreciation of the derivative in calculus. A TI-83/84Plus calculator is required.

### **Trigonometry and Math Topics**

Course 242

*Grade 12 – 2 semesters – ½ credit each semester*

*Prerequisite: Algebra 2*

This course covers fundamental topics in trigonometry including analytic geometry, the unit circle, and basic trigonometric identities. A heavy emphasis on algebraic functions will be highlighted throughout the course. Essential to this course will be a continuous exploration of how techniques and concepts learned can be applied to enhance problem solving abilities in everyday life. A TI- 83/84Plus calculator is required.

## **Honors Precalculus**

Course 230

*Grade 11-12 – 2 semesters – ½ Honors credit each semester*

*Prerequisites: Honors Algebra 2 and either Honors Geometry or Honors Geometry with Statistics and Vectors*

Topics include the development of polynomial and transcendental functions, inverse functions, analytic geometry, unit circle trigonometry, trigonometric identities and solving trigonometric equations, polar equations and their graphs, vector analysis and limits as a strong preparation for the study of calculus. The theory of mathematics is discussed in great detail, and students are expected to begin some development of mathematical creativity and thought, as well as maintain accuracy in computation and application. A TI-83/84Plus calculator is required.

## **Honors Vector Precalculus**

Course 233

*Grade 11-12 – 2 semesters – ½ AP credit each semester*

*Prerequisite: Honors Geometry with Statistics and Vectors*

Honors Vector Precalculus consists of eight core topics, including Algebra, Functions and Equations, Circular Functions and Trigonometry along with Vector Geometry, Matrices, Probability and Statistics, and Differential Calculus.

## **AP Calculus AB**

Course 240

*Grade 12 – 2 semesters – ½ AP credit each semester*

This initial course in Calculus thoroughly covers both the techniques and applications of both differential and integral calculus. All topics from the College Board's suggested content guide for Calculus AB are covered. Students are required to take the AP exam in May.

## **AP Calculus BC**

Course 246

*Grade 12 – 2 semesters – ½ AP credit each semester*

This course includes all topics normally taught in the Advanced Placement BC Calculus course through polar, parametric, and infinite series with an added emphasis on techniques of writing and solving differential equations. Students are required to take the AP exam in May.

## **AP Statistics**

Course 252

*Grade 11-12 – 2 semesters – ½ AP credit each semester*

The purpose of AP Statistics is to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data in preparation for the AP Statistics Exam. The course is organized around four major themes: exploring data, sampling and experimentation, anticipating patterns, and statistical inference. Students are required to take the AP exam in May.

## **IB Mathematical Studies SL**

Course IB501SL

*Grade 11 or 12 – 2 semesters (1 year) – ½ non-weighted IB credit each semester*

This course caters to students with varied interests, backgrounds, and abilities. It is designed to build confidence and encourage an appreciation of mathematics in students who do not anticipate a need for it in their future studies. The course concentrates on mathematics that can be applied to contexts related as far as possible to other subjects being studied, to common real-world occurrences, and to topics that relate to home, work and leisure situations. As part of the course, students must produce a statistics-based project consisting of a piece of written work, guided and supervised by the teacher. This process allows students to ask their own questions about mathematics and to take responsibility for a part of their own course of studies in mathematics.

**IB Mathematics SL**

Course IB511SL

*Grade 11 or 12 – 2 semesters (1 year) – ½ IB credit each semester**Prerequisite: Precalculus, Honors Precalculus or Honors Vector Precalculus*

The IB Math SL curriculum consists of eight core topics, some of which are covered in the student's Algebra II, Geometry, and Precalculus courses, all of which are prerequisites for IB Math SL. The topics in IB Math SL include Algebra, Functions and Equations, Circular Functions and Trigonometry along with Vector Geometry, Probability and Statistics, and Calculus. The Calculus curriculum completed in SL Math is not aligned one-to-one with the curriculum in AP Calculus AB and does not necessarily prepare the student for the Advanced Placement AB examination.

**IB Mathematics HL**

Course IB523HL/IB524HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

The IB Math HL curriculum consists of eight core topics, some of which are covered in the student's Algebra II and GeoStats with Vectors courses. Both of these are prerequisites for IB Math HL, and are typically taken in the freshman and sophomore years. The topics in IB Math HL include Algebra, Functions and Equations, Circular Functions and Trigonometry along with two- and three-dimensional Vector Geometry, Matrices (along with Matrix Algebra), Probability and Statistics and Calculus, along with an in-depth study of differential equations and infinite series. The Calculus curriculum includes all topics in the Advanced Placement BC Calculus course through polar, parametric and infinite series with an added emphasis on techniques of writing and solving differential equations. Students are required to take the AP Calculus BC Exam after year two of the sequence.

**Data Science**

Course 245

*Grade 12 – 2 semesters – ½ credit each semester**Prerequisite: Precalculus*

The study of mathematics from an analytic perspective is a practical approach to applications of mathematics. Problem solving, analyzing and interpreting data, and mathematically based decision-making skills will be reinforced and strengthened. Students will learn about current trends across a wide range of industries including; sports, science, business and healthcare as well as the opportunity to work with companies in these areas in a collaborative nature. The course will cover three major topics; Data Collection and Management, Introduction to Computer Programming, and Data Analysis / Advanced Statistics. The course will provide students with a foundation for education beyond high school and employment in today's ever-changing job market.

## DEPARTMENT OF SCIENCE

### The following Science courses are required:

Grade 9	Biology <i>or</i> Honors Biology
Grade 10	Chemistry <i>or</i> Honors Chemistry <i>or</i> Honors Physics (for pre-IB candidates only)
Grade 11	Physics <i>or</i> Honors Physics <i>or</i> AP Chemistry (for those who will take Honors Physics senior year) IB Group 4 1- or 2-year choice (for IB candidates only)
Grade 12	Honors Physics (only for those who took AP Chemistry junior year)

### Biology

Course 311

*Grade 9 – 2 semesters – ½ lab credit each semester*

This course explores the physical and chemical conditions that sustain and affect all living things. It also investigates the way living things are structured and how they operate in their environment. Classroom discussion, lectures, and laboratory investigations complement each other in creating a strong science background.

### Honors Biology

Course 310

*Grade 9 – 2 semesters – ½ Honors lab credit each semester*

This course explores the unity of structure and function found in the great diversity of living things. Emphasis is on the cell, genetics, biotechnology and evolution. Students are expected to participate individually and collaboratively in labs, class-work, and research.

### Chemistry

Course 331

*Grade 10 – 2 semesters – ½ lab credit each semester*

*Department approval required*

Chemistry is the study of matter, its structure, properties and behavior. Quantitative and qualitative labs support the course material. Topics in this college preparatory course include classifications of matter, nomenclature, reactions, stoichiometry, periodic table organization, atomic theory, and equilibrium. Use of the scientific method and problem solving are stressed.

### Honors Chemistry

Course 320

*Grade 10 – 2 semesters – ½ Honors lab credit each semester*

*Department approval required*

An in-depth study of chemistry for the science-oriented, math-proficient student. Theories are discussed and quantitatively supported in the lab. Topics include atomic theory, stoichiometry, bonding, gas laws, equilibria, acid/base theory, and oxidation/reduction. This course stresses observation, interpretation and problem-solving, including determination of unknown in the lab.

### Physics

Course 341

*Grade 10-12 – 2 semesters – ½ lab credit each semester*

*Department approval required*

Physics is the study of the physical world, and in particular, the interactions of matter and energy. This course is designed for the serious student who desires a college-prep level study



of mechanics and energy. Emphasis will be on lab and graphical analysis. Students will be expected to use algebra and trigonometry to solve problems in the course.

### **Honors Physics**

Course 330

*Grade 10-12 – 2 semesters – ½ Honors lab credit each semester*

*Application and department approval required*

This honors level physics course will be an in-depth study of the fundamentals of all areas of mechanics, energy, electricity and magnetism. It is designed for students who expect to take AP Physics C (Mechanics and Electricity & Magnetism) in the senior year and intend to pursue a science-oriented career. The course emphasizes a laboratory based, self-discovery approach, leading to an understanding of the process of scientific deduction. Algebra and geometry/trigonometry skills are expected to be well above average and will be used rigorously in this course. Students are expected to study and read extensively outside of the class assigned time and must complete a summer assignment before the course begins. Your time and presence outside the school day (before or after the school day) will be required for this class.

### **AP Biology**

Course 348

*Grade 12 – 2 semesters – ½ AP credit each semester*

*Prerequisites: Biology, Chemistry, Physics*

*Interview with Mrs. Nugent required*

This course is designed as the equivalent of a college introductory biology course and will be taught concurrently with IB Biology SL to meet both the AP Course Description recommended by the College Board as well as all requirements of the IB SL Biology curriculum, including participation in an individual assessment (IA). The course will cover biology topics including evolution, ecology, molecular biology, molecular genetics, and organismal biology. The course will have a heavy focus on the development of laboratory skills, quantitative reasoning, and scientific thinking. The course will prepare students to complete BOTH examinations in May, but only the specific test for the chosen course will be required. Because the test registration dates are after the first quarter, students may opt for one or the other or both tests depending on their preferences.

### **IB Biology SL**

Course IB421SL

*Grade 11-12 – 2 semesters (1 year) – ½ IB lab credit each semester*

This course is designed as the equivalent of a college introductory biology course and will be taught concurrently with AP Biology to meet both the AP Course Description recommended by the College Board as well as all requirements of the IB SL Biology curriculum, including participation in an individual assessment (IA). The course will cover biology topics including evolution, ecology, molecular biology, molecular genetics, and organismal biology. The course will have a heavy focus on the development of laboratory skills, quantitative reasoning, and scientific thinking. The course will prepare students to complete BOTH examinations in May, but only the specific test for the chosen course will be required. Because the test registration dates are after the first quarter, students may opt for one or the other or both tests depending on their preferences.

### **AP Chemistry**

Course 349

*Grades 11-12 – 2 semesters – ½ AP credit each semester*

*Prerequisite: Honors Chemistry*

*Interview with Mrs. Lavelle required*

This course is designed as the equivalent of a college general chemistry course, and has an approved syllabus as demanded by the College Board. Concepts and material that are expected to be on the College Board AP Chemistry Exam will be covered in depth. Exam

taking strategy will also be employed throughout the course, as well as the reinforcement of concept through laboratory investigation. Students are required to take the AP exam in May. Your time and presence outside school day (before or after the school day) will be required for this class. There is summer work that must be completed before this class starts.

### **IB Chemistry HL**

Course IB433HL/IB434HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB lab credit each semester*

IB Chemistry HL is a two-year course requiring 180 hours of coursework and 60 hours of practical (lab) work. This course combines academic study with the acquisition of investigational skills through the experimental approach. Students will examine topics including measurement and data processing, quantitative chemistry, atomic structure, periodicity, bonding, acids and bases, oxidation-reduction reactions, energetics, kinetics, equilibrium, organic chemistry, and one chosen topic areas that will allow for the application and utilization of theories learned. The course is a laboratory based and students will be required to research, organize, write and present scientific concepts. Students are expected to apply mathematical concepts mastered in Algebra II for the first year and are currently enrolled in Honors Precalculus or HL Math as a junior. It is highly recommended that students enter this course from the honors science track.

### **AP Physics C: Electricity & Magnetism**

Course 350

*Grade 12 – 2 semesters – ½ AP lab credit each semester*

*Prerequisites and Requirements: Completion of Physics 341 or Honors Physics; must be enrolled in AP Calculus*

*Interview with Ms. McTernan required*

This college-level second-year physics course will be an in-depth study of the fundamentals of electricity and magnetism and is designed to give necessary pre-college background for students who wish to succeed in a physics or engineering-oriented career. The course emphasizes a laboratory-based, problem-solving approach, continuing the student's development in the process of scientific deduction. Thorough previous knowledge of year-one physics, algebra, trigonometry, and graphical analysis is required. Concepts of calculus will be used where appropriate. Concepts of calculus will be used where appropriate. There is a mandatory summer assignment to assist in course preparation. Students are required to take the AP Physics C E&M exam in May. Additional topics will, include nuclear and atomic physics.

### **IB Physics SL**

Course IB441SL/IB442SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB lab credit each semester*

IB Physics SL is a comprehensive two-year pre-university course that is designed to allow students to obtain a secure knowledge of the physical models that are used to explain motion, force, energy, and the interaction of objects in the physical universe. By the end of the course, students will have a broad understanding of the various fields encompassed by physics, including topics in modern physics. Students will continue to be introduced to the way scientists work and communicate with each other by performing laboratory experiments, using the scientific method, and writing laboratory reports. Students will spend more than 40 hours (over 25% of instruction time) performing these laboratory experiments.

### **IB Physics HL**

Course IB443HL/IB444HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB lab credit each semester*

IB HL Physics HL is a two-year course requiring 180 hours of coursework and 60 hours of practical (lab) work. This course combines academic study with the acquisition of investigation skills through the experimental approach. Students will examine topics in: Measurements and uncertainties, Mechanics, Thermal physics, Waves, Electricity and magnetism, Circular motion

and gravitation, Atomic, nuclear and particle physics, Energy production, Wave phenomena, Fields, Electromagnetic induction, Quantum and nuclear physics, and one additional option. The course is a laboratory based and students will be required to research, organize, write, and present scientific concepts. It is highly recommended that students enter this course from the honors science track. Students are expected to apply mathematical concepts mastered in Algebra II in the first year and be currently enrolled in Honors Precalculus or HL Math as a junior.

### **Environmental Science**

Course 360

*Grade 12 – 2 semesters – ½ credit each semester*

*Prerequisites: Biology, Chemistry 320 or 331, Physics 330 or 341, Honors Chemistry/Physics, or counselor approval*

*Prerequisite/Corequisite: Precalculus*

This course will provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary; it embraces a wide variety of topics from different areas of study.

### **Human Anatomy and Physiology**

Course 361

*Grade 12 – 2 semesters – ½ credit each semester*

*Prerequisites: Biology, Chemistry 320 or 331, Physics 330 or 341, Honors Chemistry/Physics, or counselor approval*

This course is designed for seniors who desire to develop an understanding and appreciation of the human body. This course is designed to be an advanced study of the human body for students with an interest in pursuing a career in a health-related field. Topics include anatomical structures, physiological systems, and body functions. Students will acquire skills used in the classification of data, experience in oral and written communication of data, and skills in drawing logical inferences and predicting outcomes. Students will apply the principle of physiology to human health and evaluate the applications and career implications of physiology and anatomy principles.

## DEPARTMENT OF SECOND LANGUAGE ACQUISITION

### **The following Language course of study is required:**

Class of 2017	2 consecutive years of study in the same language
Classes of 2018-2020	3 consecutive years of study in the same language

### **French 1**

Course 431

*Grades 9-12 – 2 semesters – ½ credit each semester*

This is a class for students with no experience in the French language. Students will learn the four skills of foreign language acquisition – speaking, reading, writing, and listening. By the end of the first year, the student should be able to state what he likes/prefers to do in his free time, extend invitations and make requests, describe himself, another person and objects, make plans with another person using time and location, ask and answer questions concerning age, origin, nationality and profession, and talk about his home, meals, and chores. Overall, students should be able to hold a comprehensible conversation in the present tense by the end of French 1.

### **Honors French 1**

Course 431H

*Grades 9-12 – 2 semesters – ½ Honors credit each semester*

This course is intended for highly motivated beginning level students who are prepared to learn French at an accelerated pace. The objective is to focus on obtaining a high proficiency in the areas of speaking, listening, reading, and writing. Students should expect to have more homework on a nightly basis. By the end of the first year of the honors track, the student should be able to state what he likes/ prefers to do in his free time, extend invitations and make requests, describe himself, another person, and objects, make plans with another person using time and location, ask and answer questions concerning age, origin, nationality and profession, talk about his home, meals, and the chores he does routinely, and use health related expressions with parts of the body. Because of the accelerated pace, the goal is to be able to hold a comprehensible conversation in both the present and past tenses by the end of the course.

### **French 2**

Course 432

*Grades 9-12 – 2 semesters – ½ credit each semester*

This course is intended for intermediate students who are prepared to continue learning French. The goal for French 2 is to focus on improving proficiency in the areas of speaking, listening, reading, and writing. By the end of year two, students should be able to discuss holidays, give opinions, inquire about future plans, ask for directions when lost and give directions, voice a complaint, express frustration, recount past events, make a suggestion to another, express an event they are looking forward to attending, describe a health problem and give/listen to instructions, ask for a hotel room and reasonably communicate in the hotel setting, compose a letter to a friend and request to borrow an object from another, form complements, and order food in a restaurant. Along with building an understanding on the present and past tense, students will also learn various irregular verbs of the two tenses, use direct and indirect object pronouns, use reflexive verbs, and also be able to differentiate between the *passé composé* and the *imparfait* in all four proficiency areas of second language acquisition.

### **Honors French 2**

Course 432H

*Grades 9-12 – 2 semesters – ½ Honors credit each semester*

### *Department approval required*

This course is intended for highly motivated intermediate students who are prepared to continue learning French at an accelerated pace. The objective is to focus on obtaining a high proficiency in the areas of speaking, listening, reading, and writing. Students should expect to have more homework on a nightly basis. By the end of the second year of the honors track, students should be able to discuss holidays, give opinions, inquire about future plans, ask for directions when lost and give directions, voice a complaint, express frustration, recount past events, make a suggestion to another, express an event they are looking forward to attending, describe a health problem and give/listen to instructions, ask for a hotel room and reasonably communicate in the hotel setting, compose a letter to a friend and request to borrow an object from another, form complements and order food in a restaurant, ask what someone prefers, make an observations on their surroundings, express appreciation, ask someone to lend them an item, hypothesize in the conditional tense, propose a solution to a problem, express future goals, and state what they have been wanting to do and make known when they need something. Along with building a strong understanding of the present and past tense, students will learn various types of irregular verbs of the two tenses, use direct and indirect object pronouns, use reflexive verbs, and also be able to differentiate between the *passé composé* and the *imparfait* in all four proficiency areas of second language acquisition.

### **French 3**

Course 433

*Grades 10-12 – 2 semesters – ½ credit each semester*

French 3 is foremost a review of the basic grammar items covered in French 2 with an emphasis on exceptions to rules and new vocabulary items to improve conversation skills. Speaking, reading and writing skills are taught in order for students to improve their knowledge and usage of the language. Regular verbs and some of the irregular verbs, adjectives, articles, basic question patterns, and numbers form also the core of the review and improvement taught in the class. Entering a French 3 level requires a good understanding of spoken French as well as the ability to write and express oneself in the language. French 3 reviews and improves the use of subjunctive, conditional and future tenses; complex sentences, questions and prepositions use are also part of the curriculum. Additionally, French 3 includes various aspects of French literature, culture, and civilization through the study of the geography, history, language, literature, art, music and cooking of France. Class discussions will be conducted in French.

### **IB French SL**

Course IB231SL/IB232SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

The first year of the course involves intense language acquisition through listening, speaking, reading and writing and culture. Students are encouraged to communicate in French using vocabulary and grammar from previous levels of study. Students will perform individual and group work to build upon and improve communication skills in the target language. The second year of the course involves listening, reading, speaking, writing and culture components in French. Students work individually and in groups to analyze debate and discuss a variety of issues and texts. Satisfactory completion of French II (Honors) is highly recommended for this advanced language course.

### **French 4**

Course 434

*Grades 11-12 – 2 semesters – ½ credit each semester*

This course is designed to interest and challenge capable students who wish to develop a greater degree of proficiency in the French language. The basic elements of grammar are reviewed, refined, and practiced as students examine the Francophone world of today and

yesterday. Students expand their vocabulary and continue to participate in activities to enrich their francophone knowledge. French 4 aims to develop more fluency in French through class discussion of current events, history and literature. The literature and history studied in this course relate principally to France from prehistoric times through the Renaissance. Some literature from the 20th century and poems from other Francophone countries are also analyzed. Compositions, research papers, and oral reports are assigned to develop mastery of the grammar and vocabulary studied. Literary and artistic masterpieces are analyzed within their historical, social, and political contexts.

### **Honors French 4**

Course 434H

*Grades 11-12 – 2 semesters – ½ Honors credit each semester*

This course is designed for students who desire to continue to use French more naturally and effectively. Through the application of previously learned concepts, students will address popular current event topics, gain a better understanding of French and Francophone people, culture, and language. Advanced grammar topics will be incorporated in context to increase speaking ability. Students will express feelings and opinions, agree and disagree, and carry out conversations on a variety of topics while increasing their vocabulary. The class is student-centered so that assessments include the creation, evaluation, and analysis of problems, while the mastery of language is practiced through teaching others, discussion, and presentation.

### **Latin 1**

Course 411

*Grades 9-12 – 2 semesters – ½ credit each semester*

This course is an introduction to classical Latin, including its pronunciation, vocabulary, and grammar. The reading of Latin will be emphasized, as will the English derivation of words from Latin. Students will study basic classical mythology and Roman culture as well.

### **Honors Latin 1**

Course 411H

*Grade 9-12 – 2 semesters – ½ Honors credit each semester*

This course is an introduction to classical Latin, which presupposes no prior background in Latin; however, its pace is brisker than the standard Latin I course's, and students will be given the chance to learn a good deal more grammar and vocabulary than in standard Latin I. In addition, Greek myth and Roman history will be explored in greater depth and students will develop a familiarity with Latin phrases used in English. The goal of this class is to prepare students for reading the great Latin classics of Julius Caesar, Cicero, Pliny, Ovid, Vergil, Horace, and Catullus by the end of a second year of Honors Latin or by the start of Honors or IB third year.

### **Latin 2**

Course 412

*Grades 10-12 – 2 semesters – ½ credit each semester*

This course is a review and continuation of Latin 1. More complex grammatical concepts, including gerund constructions, subjunctive phrases, and conditional sentences will be studied. Selections from *Fabulae Faciles* (Easy Stories) and Caesar's *Gallic Wars* will be read.

### **Honors Latin 2**

Course 412H

*Grades 10-12 – 2 semesters – ½ Honors credit each semester*

*Department approval required*

This course is a review and continuation of Honors Latin 1. Complex grammatical concepts, including infinitive phrases and participles will be studied at an accelerated rate. Conditional sentences, gerundive phrases, and subjunctive clauses, will be introduced. In the fourth quarter, students will be exposed to selections from Julius Caesar *Gallic War*.

**Latin 3**

Course 413

*Grades 11-12 – 2 semesters – ½ credit each semester**Department approval required*

This course continues the study of Latin grammar and vocabulary and introduces the in-depth study of various classical writings. To be included are the prose works of Caesar and Cicero, or passages from the Vulgate, which is the Latin version of the Bible.

**Honors Latin 3**

Course 413H

*Grades 11-12 – 2 semesters – ½ Honors credit each semester**Department approval required*

This course is designed to begin preparing students for the AP Exam in their final year. It includes an introduction to Latin literature and readings from such authors of prose as Caesar, Cicero, and Pliny and the epic poetry of authors like Ovid and Vergil.

**AP Latin**

Course 415

*Grades 11-12 – 2 semesters – ½ AP credit each semester**Department approval required*

In this course, students will study the background, content, and structure of Julius Caesar's Gallic Wars and Vergil's Aeneid. Assignments will include translation of original texts from Latin to English, outside readings in English on classical Greek and Roman themes, and essays in English on topics related to poetry, mythology, culture, history, and art. Students are required to take the AP Latin exam in May.

**IB Latin SL**

Course IB211SL/IB212SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

The standard level coursework will emphasize developing students' ability to read, translate, and comprehend selections of original Latin prose and poetry. Students will also explore the language, literature, and culture of ancient Rome with the purpose of deepening their understanding of the inextricable link between culture and language and the continuing influence of ancient cultures on our modern world. Topics in the first year include Roman oratory, history, government, and architecture. These topics will be explored by translating and discussing various Roman authors such as Cicero, Catullus, Horace, Vergil, and Ovid. During the second year students will continue their study of Latin focusing on the epic poetry of Vergil, the lyric poetry of Catullus, and the odes of Horace. Satisfactory completion of Latin II (Honors) is highly recommended for this advanced language course.

**IB Latin HL**

Course IB213HL/IB214HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

The higher level work in this course will emphasize comprehension of original Latin works of prose and poetry. Students will also explore the language, literature, and culture of ancient Rome with the purpose of deepening their understanding of the inextricable link between culture and language and the continuing influence of ancient cultures on our modern world. Topics in the first year include Roman oratory, history, government, and architecture. These topics will be explored by translating and discussing various Roman authors such as Cicero, Catullus, Horace, Vergil, and Ovid. During the second year students will continue their study of Latin focusing on the epic poetry of Vergil, the lyric poetry of Catullus, and the odes of Horace.

**Spanish 1**

Course 421

*Grades 9-12 – 2 semesters – ½ credit each semester*

This introductory course is designed for students with no background in the language. A foundational course, it presents a structured, proficiency-based approach to mastering the four skills of a second language: speaking, listening, reading and writing. After a strong foundation of basic information (exchanging greetings, saying where you are from, counting and saying the alphabet, telling time, describing weather, etc) is built, the student will learn to: use the subject pronouns with *ser*, *gustar*, articles and adjective agreement to talk about what he and others are like and what they like to do after school; use *tener* and present tense *-ar* verbs, the verbs *estar*, and *ir* to describe his school schedule, classes and feelings; use *gustar* with nouns, present tense *-er* and *-ir* verbs, possessive adjectives and comparatives to talk about what food he and others like or dislike and to describe his family members; use stem changing verbs and direct object pronouns to talk about shopping and places in town; and to use *ser* and *estar* and informal commands to describe a house, furniture and chores.

### **Honors Spanish 1**

Course 421H

*Grades 9-12 – 2 semesters – ½ Honors credit each semester*

*Department approval required*

This course is intended for students who have either: a) had some exposure to Spanish in grade school but not enough to test out of level one; b) are intending to participate in the International Baccalaureate Program; or c) have scored high on the English Placement test and want to challenge themselves with an honors language course. Topics covered include greetings, introductions, the verb *ser*, time and date, alphabet, describing people, forming questions, the verb *gustar*, articles, immediate future tense, *querer* + infinitive, regular present tense verbs, *tener* idioms, irregular “yo” verbs, stem changing verbs, direct and indirect object pronouns, affirmative informal commands and ordinal numbers; distinguishing between *ser/estar* and *saber/conocer*; regular preterite past tense, common irregular preterite verbs; reflexive verbs, present progressive tense and demonstrative adjectives. The student will use these structures to communicate about after school activities, foods and beverages, daily schedules, classes, feelings, family, clothes and shopping; to describing a house, chores furniture, parties; sports, staying healthy, body parts; using technology, making plans to visit places of interest, daily routines and vacation plans, leisure activities.

### **Spanish 2**

Course 422

*Grades 9-12 – 2 semesters – ½ credit each semester*

This course utilizes the base students gained in Spanish 1, to further students’ ability to read, write and interpret the Present, Preterit, and Imperfect Tenses. Other grammatical concepts, including commands, object pronouns, reflexive pronouns, demonstrative adjectives, and present progressive tense will be studied. Thematic vocabulary centers on family relationships, describing your community, physical fitness and daily routines, technology, leisure and vacation activities, clothing, and shopping.

### **Honors Spanish 2**

Course 422H

*Grades 9-12 – 2 semesters – ½ Honors credit each semester*

*Department approval required*

This accelerated course is for the highly motivated student. It will expand the his ability to communicate in Spanish in written and spoken forms while strengthening his verbal, auditory, and cultural understanding. The student will use pronouns and irregular preterite verbs to talk about vacation experiences; demonstrative adjectives, reflexive verbs and the present progressive tense to talk about sports and healthy routines; irregular “yo” verbs and preterite stem changing verbs to talk about clothes and shopping at markets and traditional stores; the imperfect past tense and the preterite of *-car,-gar, -zar* verbs to talk about legends and ancient



and modern Mexico; formal commands, negative expressions and double object pronouns to talk about food in the Spanish culture; informal commands and the present subjunctive to talk about movies and entertainment; the subjunctive in impersonal constructions and comparatives and superlatives to talk about media, and the future tense to talk about the environment and professions.

### **Spanish 3**

Course 423

*Grades 10-12 – 2 semesters – ½ credit each semester*

In this last course of the three-year Spanish series, students will refine and reinforce all the grammatical and thematic topics previously studied. In addition, the student will use formal commands, negative expressions and double object pronouns to talk about food in the Spanish culture; informal commands and the present subjunctive to talk about movies and entertainment; the subjunctive in impersonal constructions and comparatives and superlatives to talk about media, and the future tense to talk about the environment and professions.

### **Honors Spanish 3**

Course 423H

*Grades 10-12 – 2 semesters – ½ Honors credit each semester*

*Application and department approval required*

This accelerated course requires the student to communicate both orally and in writing with advanced grammar and sophisticated vocabulary. The student will continue to refine the use of preterite vs imperfect past tense, explore more situations that require the use of the subjunctive, learn to make compound tenses, and to speak in the future tense about real and hypothetical events. Topics covered range from personal recreation, environmental and social activism, rural and urban environments, professions and planning for a career and literary appreciation.

### **AP Spanish Language and Culture**

Course 425

*Grades 11-12, 2 semesters, ½ AP credit each semester*

*Application and department approval required*

This course takes a holistic approach to language proficiency. Students learn language structures in context and use them to convey meaning. In order to best facilitate the study of language and culture, the course is taught entirely in Spanish. Students explore both contemporary and historical contexts through the themes of Global Challenges, Beauty and Aesthetics, Families and Communities, Personal and Public Identities, Contemporary Life, and Science and Technology. When communicating, both orally and through writing, the students will demonstrate cultural understanding and make comparisons between the Spanish and English language and cultures. Students are required to take the AP exam in May.

### **Spanish 4: Culture and Communication**

Course 424

*Grades 11-12 – 2 semesters – ½ credit each semester*

*Department approval required*

*Prerequisite: C+ or higher in Spanish 3; C or higher in Honors Spanish 3*

This course is designed to interest and challenge capable students who wish to develop a greater degree of proficiency in the Spanish language and further their knowledge about the world around us. The basic elements of grammar are reviewed, refined, and practiced; however, the course aims to develop the students' understanding of culture, civilization, and cinema and to broaden their ability to communicate in Spanish. Class sessions will be conducted in Spanish.

### **IB Spanish SL**

Course IB221SL/IB222SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

This course enables the second language learner to understand straightforward written and spoken language; to communicate—orally and in writing—in a variety of styles and registers, about given topics; and to engage interactively in culturally appropriate conversations. These skills will be advanced as the students explore the themes of social relationships, communication and media, global issues, cultural diversity, customs and traditions, health, leisure, science, and technology in the Spanish-speaking world.

### **Introduction to Italian**

Course 450

*Grades 11-12 – 2 semesters – ½ credit each semester*

*Application and department approval required*

*Prerequisite: Language requirement has been fulfilled satisfactorily.*

*Priority will be given to rising seniors who have completed the third year of a language.*

*College Credit + dual enrollment is available for students who qualify*

This course provides exposure to the Italian language for absolute beginners. Attention is devoted to the four skills of speaking, understanding, reading, and writing with a progression from greater emphasis on listening and speaking to a balance of all skills as the year progresses. Aspects of Italian history, culture, and contemporary life are also introduced through readings, listening materials, videos and films and through the use of language technologies. The general objectives are to provide students with basic tools for oral and written communication in Italian, but also to offer them the opportunity to learn about Italian culture and life and to reflect about intercultural differences and similarities.

### **IB Italian Ab Initio SL**

Course IB251SL/IB252SL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

This course is aimed at those who haven't studied Italian and aims to produce competent speakers and writers of Italian at a level that will allow them to operate successfully in a wide range of everyday situations. Although intellectually stimulating, every effort is made to make Italian fun. Students are encouraged to watch Italian films, to listen to Italian and Swiss radio and music, to watch Italian television, to read Italian newspapers and magazine, and to use the many opportunities provided by the internet to extend knowledge of all things Italian. The principal topics covered are: Self- & Personal Relations; Shopping; Food & Eating Out; Travel & Leisure; Geography and Environment; Health & Illness/Accidents and Education and Work; as well as wider aspects of Italian culture and literature. The course also aims to develop cultural awareness through the study of a range of oral and written texts derived from authentic sources which illustrate issues of contemporary concern as well as issues of particular interest to the students. Vocabulary and Grammar are introduced progressively and are linked to the various types of text that students are expected to handle in Listening, Reading, Writing and Speaking. Grammar and Vocabulary continue to be developed and consolidated throughout the course.

### **IB Mandarin Chinese Ab Initio SL Year 1 and Year 2**

Course IB243SL/IB244SL

*Grades 1-121 – 4 semesters (2 years) – ½ IB credit each semester*

*Prerequisite: Honors Mandarin Chinese 2*

This online course, offered through Pamoja, aims to develop listening, speaking, reading, writing and interactive language skills to a high level of communicative competence. It will provide a solid grammar and vocabulary framework while simultaneously presenting three major themes: individuals and society, leisure and work, and urban and rural environments. The topics provide the student with opportunities to practice and explore the language as well

as to develop intercultural understanding. By the end of the two year course, the student will be able to communicate and interact appropriately in a range of everyday situations.

## **DEPARTMENT OF TECHNOLOGY**

### **Computer Programming**

Course 574

*Grades 9-12 – 1 semester – ½ credit*

In this course, students learn the skill of programming using the Ruby language. Students study constructs fundamental to object-oriented programming, including objects, classes, variables, assignments, conditionals, loops and subroutines. Also included in programming methodology are the process of debugging and testing, algorithmic thinking, revision control, and the ability to deploy creations on the web. No prior experience with programming is required, though experienced programmers are welcome.

### **AP Computer Science A (Programming)**

Course 577

*Grades 11-12 – 2 semesters – ½ AP credit each semester*

*Department approval required*

In this college-level computer science course, students will develop skills in object-oriented programming (JAVA) for the Advanced Placement exam. Course content includes theory, problem-solving, program design, effective development practices, and advanced data structures. Students can earn college credit, given a sufficient score on the AP Exam. This AP course represents a serious first step in a career in computer science.

### **Website Design and Development**

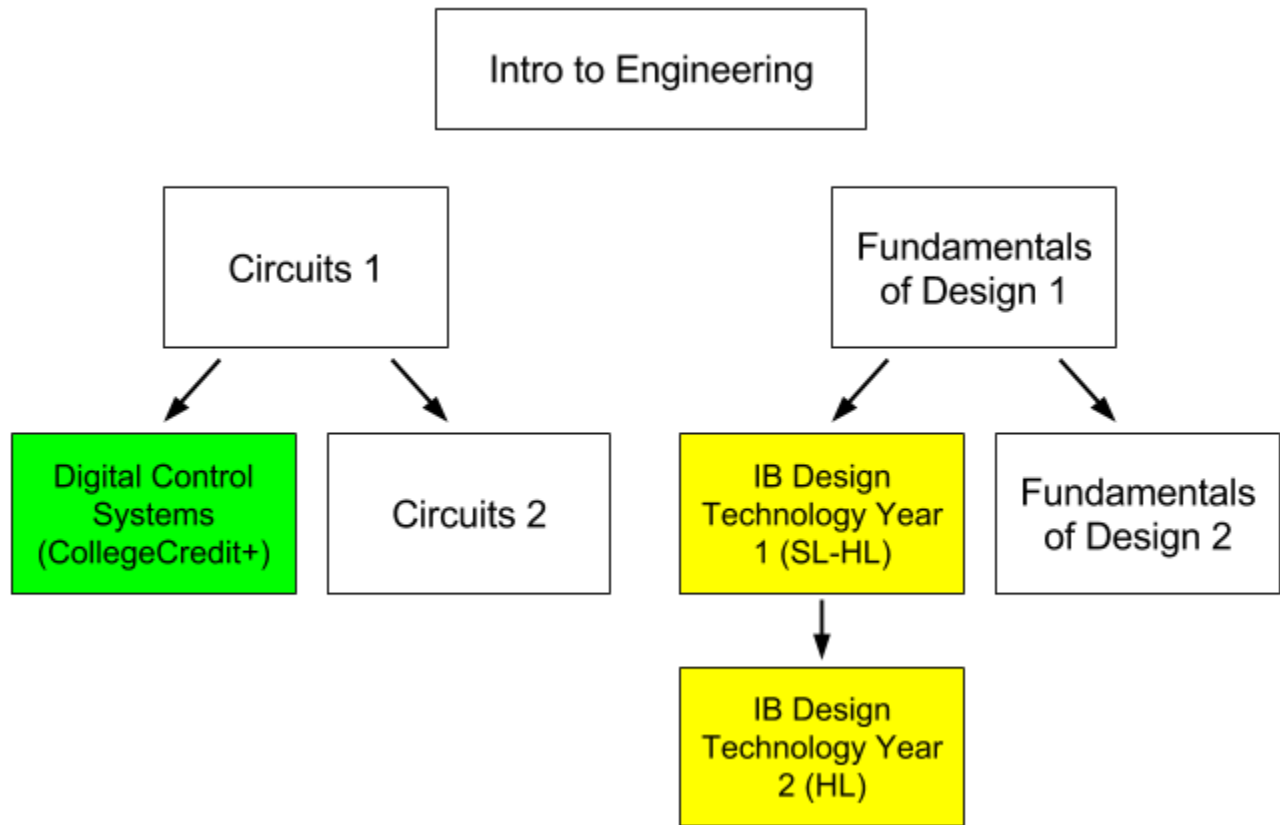
Course 592

*Grades 10-12 – 1 semester – ½ credit*

A one-semester intensive course that will introduce students to the fundamentals of web design and development. Course is modular, with each module building on the previous one. Included are design principles, website planning, structured markup in HTML 5, basics of scripting, form fields, data validation, and database connections. Course will require a serious work ethic and ability to work independently, read documentation, and troubleshoot one's own projects.

## DEPARTMENT OF PRE-ENGINEERING

### Course Scope and Sequence



### Introduction to Engineering

Course 640

*Grade 9 – 1 semester – ½ credit*

Introduction to Engineering is a one semester course that explores multiple facets of Engineering as a career and engineering as a valuable life skill. Students will engage in mechanical and structural design as well as electronics and programming. Teamwork, time management and project management are all critical aspects of this course. Access to a Windows-based computer outside of school to complete assignments using the Creo Parametric Modeling software is recommended but not mandatory. A temporary educational license of the software will be provided to the students upon enrolling in this course.

### Circuits I

Course 643

*Grade 10-12 – 1 semester – ½ credit*

*Supply fee: \$40.00*

This is a survey of the design and application of basic electrical and pneumatic circuits. In this course, students will explore topics relating to basic electrical circuits (Ohm's Law, Kirchoff's Law, etc.) as well as basic ladder (relay) logic using switches and coils. Students will also experiment with pneumatic circuits using valves, cylinders, and other actuators. Students will be expected to apply basic algebraic skills to calculate voltage, current, pressure, and volume.

### Circuits II

Course 644

*Grade 10-12 – 1 semester – ½ credit*

*Prerequisite: Circuits I*

*Supply fee: \$40.00*

This is an advanced course that applies concepts from Circuits 1 and includes advanced electronics topics such as digital (gate) logic, programming of microcontrollers (Arduino) use of transistors and timers, and AC circuit theory. Students will also work with PLC systems to explore industrial automation and closed-loop (feedback) systems incorporating electronics and pneumatics.

### **Digital Control Systems**

Course 650

*Grade 10-12 – 1 semester – ½ credit*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Cuyahoga County Community College (Tri-C) is also a requirement.*

This course incorporates mechanical design, electronics and Arduino programming. Students will build and program a small robot that makes use of multiple sensors and motors to be able to navigate autonomously. Light fabrication and soldering is expected as well as considerable programming and troubleshooting of the design. Additional college tuition fees are possible for this course.

### **Fundamentals of Design I**

Course 641

*Grade 10-12 – 1 semester – ½ credit*

*Supply fee: \$30.00*

This course focuses on solving broadly defined, open-ended problems with an emphasis on Mechanical and Structural Engineering. Students in this course will apply concepts from their math classes to calculate forces acting on static structures so successful completion of Algebra 1 is required before enrolling in this course. Access to a Windows-based computer outside of school to complete assignments using the Creo Parametric Modeling software is recommended but not mandatory. A temporary educational license of the software will be provided to the students upon enrolling in this course.

### **Fundamentals of Design II**

Course 642

*Grade 10-12 – 1 semester – ½ credit*

*Prerequisite: Fundamentals of Design I*

*Supply fee: \$30.00*

This course focuses survey of mechanical design and technical drawing with an emphasis on project management and documentation of designs. Students are expected to follow the Design Cycle Model (DCM) and keep an up-to-date Engineering Notebook to authenticate their work. Access to a Windows-based computer outside of school to complete assignments using the Creo Parametric Modeling software is critical for this course. A temporary educational license of the software will be provided to the students upon enrolling in this course.

**Note:** This course may be taken to fulfill a Fine Arts credit.

### **IB Design Technology SL**

Course IB465SL

*Grade 11-12 – 2 semesters (1 year) – ½ IB lab credit each semester*

*Prerequisite: Fundamentals of Design I*

*Supply fee: \$50.00*

In this course, students will survey important factors that direct the successful design of products and processes in our world. Scientific and mathematical principles that affect design, such as strength of materials, are considered within culturally defined contexts that include considerations of cost, safety, appearance, and environmental impact, as well as availability of manufacturing technologies. Students will work individually and in teams to evaluate, refine and create models of effective designs.

**Note:** This course may be taken to fulfill a Fine Arts credit.

**IB Design Technology HL**

Course IB463HL/IB464HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB lab credit each semester*

*Supply fee: \$50.00 each year*

This four-semester course is an advanced survey in product development and their design and manufacture. Students are expected to design a product from beginning to end. Analysis of markets, surveys of target demographics, properties of natural and synthetic materials, application manufacturing processes, responsibilities and ethics of design, national and global standardization, and product lifecycle analysis are all covered in this course. Students will study concepts relating to energy generation (traditional and alternative), analysis of structures and how forces act upon materials, advanced manufacturing (welding, CNC manufacture, 3D printing, etc.) and sustainable development and product design for developing regions around the world.

**Note:** This course may be taken to fulfill a Fine Arts credit.

## DEPARTMENT OF THEOLOGY

**The following Theology courses are required:**

Grade 9	Jesus in Scripture <i>and</i> Who is Jesus Christ?
Grade 10	The Pascal Mystery <i>and</i> Christ's Mission in the Church
Grade 11	Sacraments <i>and</i> Morality
Grade 12	World Religions <i>and</i> Social Issues

### **Jesus in Scripture**

Course 713

*Grade 9 – 1 semester – ½ credit – required*

The purpose of this course is to give students a general knowledge and appreciation of the Sacred Scriptures. Through their study of the Bible they will come to encounter the living Word of God, Jesus Christ. In the course they will learn about the Bible, authored by God through Inspiration, and its value to people throughout the world. If they have not been taught this earlier, they will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. The students will pay particular attention to the Gospels, where they may grow to know and love Jesus Christ more personally.

### **Who is Jesus Christ?**

Course 714

*Grade 9 – 1 semester – ½ credit – required*

The purpose of this course is to introduce students to the mystery of Jesus Christ, the living Word of God, and the Second Person of the Blessed Trinity. In this course students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about who he is, the students will also learn who he calls them to be.

### **The Pascal Mystery**

Course 724

*Grade 10 – 1 semester – ½ credit – required*

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 only 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.

### **Christ's Mission in the Church**

Course 725

*Grade 10 – 1 semester – ½ credit – required*

The purpose of this course is to help the 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.

### **Sacraments**

Course 732

*Grade 11 – 1 semester – ½ credit – required*



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.

### **Morality**

Course 733

*Grade 11 – 1 semester – ½ credit – required*

The purpose of this course is to help students learn the moral concepts and precepts that govern the lives of Christ's disciples.

### **World Religions**

Course 742

*Grade 12 – 1 semester – ½ credit – required*

The purpose of this course is to help students understand the manner in which the Catholic Church relates to non-Catholic Christians as well as to other non-Christian religions of the world. Students will understand how the Catholic Church proclaims Jesus Christ "the way, the truth, and the life (John 14:6)" and at the same time teaches that the Church rejects nothing that is true and holy in other religions. The course is intended to help students recognize the ways in which important spiritual truths can also be found in non-Catholic Christian and non-Christian communities, and to show them how Catholics relate to members of different faiths respectfully while continuing to live and profess their faith confidently.

### **Social Issues**

Course 743

*Grade 12 – 1 semester – ½ credit – required*

The purpose of this course is to introduce students to the Church's social teaching. 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 teaching and mission.

### **Leadership in Prayer and Worship**

Course 745

*Grades 10-12 – 1 semester – ½ credit*

This course will study the historical origins of prayer, liturgy and worship in the Catholic tradition. We will take a particular interest in how liturgy is celebrated here at St. Edward.

**Note:** Students may enroll in this course more than once.

## DEPARTMENT OF FINE ARTS

Each student is required to earn ½ credit in the Visual Arts, Film, and/or Performing Arts and Music.

### Visual Arts

#### Introduction to Studio Art

Course 859

*Grade 9 – 1 semester – ½ credit*

This course offers an introduction to creating art in a studio setting. Students will work in a variety of media including clay, colored pencil, and marker. Craftsmanship, problem solving, and studio procedure are taught through a variety of projects the students create.

#### Beginning Pottery & Sculpture

Course 864

*Grades 10-12 – 1 semester – ½ credit*

*Supply fee: \$40.00*

Students will learn basic hand-building techniques. The students will make projects using coil, slab, and solid construction. Different finishing/glazing procedures will be taught.

#### Advanced Pottery

Course 867

*Grades 10-12 – 1 semester – ½ credit*

*Prerequisite: Beginning Pottery/Sculpture*

*Supply fee: \$40.00*

Students will spend the semester creating functional pottery. The potter's wheel will be emphasized, as well as hand-building methods of slab and coil. Surface treatments, the elements of design, and glazing will be taught through assigned projects. Projects include vessel series created on the potter's wheel, coil pots, and slab boxes.

#### Advanced Sculpture

Course 872

*Grades 10-12 – 1 semester – ½ credit*

*Prerequisite: Beginning Pottery/Sculpture*

*Supply fee: \$40.00*

Students will continue to develop their skills and creativity through creating three-dimensional artwork using clay. Projects will include self-portraits, furniture, pop art, and reproductions.

#### Ceramics I

Course ARTS181

*Grades 10-12 – 2 semester – ½ credit each semester*

*College Credit + dual enrollment is available for students who qualify*

*Admission to Lorain County Community College (LCCC) is also a requirement.*

*Supply fee: \$40.00*

An introduction to working with clay in both hand building and wheel methods, including surface decoration and glazing.

#### Independent Study in Clay

Course 873

*Grades 11-12 – 1 semester – ½ credit*

*Prerequisite: Beginning Pottery/Sculpture; Advanced Pottery or Advanced Sculpture*

*Supply fee: \$40.00*

Students will work independently in the studio developing skills and ideas through a variety of self-assigned projects. The projects will be approved by the instructor. This is an opportunity to create artwork that is very reflective of the artist's personality, interests, and artistic voice.

### **Beginning Drawing and Design**

Course 860

*Grades 10-12 – 1 semester – ½ credit*

*Supply fee: \$40.00*

This is an introductory drawing course with an emphasis on mastering materials and techniques. Students will draw from imagination and life, using pencil, charcoal, and conte crayon. Students who have taken the one quarter drawing class in the past may enroll in this full semester course.

### **Painting**

Course 861

*Grades 10-12 – 1 semester – ½ credit*

*Prerequisite: Beginning Drawing and Design*

*Supply fee: \$40.00*

Students will be working with acrylic paints. Color theory, the principles of design, and painting techniques will be introduced. Students will be encouraged to begin to develop their own style as they continue to explore the possibilities of acrylic paint. Experimentation with non-traditional painting surfaces will be attempted, breaking away from the limitations of two-dimensional planes.

### **Advanced Painting**

Course 870

*Grades 11-12 – 1 semester – ½ credit*

*Prerequisite: Painting*

*Supply fee: \$40.00*

Students will develop and refine their painting skills using gels and various texturing methods and will be challenged to produce portfolio quality paintings. With instructor approval, this course may be repeated by advanced students wishing to produce portfolio-grade works.

### **Advertising and Design**

Course 853

*Grades 10-12 – 1 semester – ½ credit*

*Supply fee: \$40.00*

Students will be exposed to styles and principles of designing advertising and products and will create advertisements, logos, and product labels. This course will include the use of computer graphic programs for design and free hand drawing software applications. Images will be compiled into a portfolio and stored digitally for college credit or publishing in the future.

### **Sports Art**

Course 874

*Grades 10-12 – 1 semester – ½ credit*

*Supply fee: \$40.00*

Students will study principles in sports art, such as motion and the human figure. Student projects will be both 2-dimensional and 3-dimensional.

### **Portfolio Preparation**

Course 878

*Grades 11-12 – 1 semester – ½ credit*

*Department approval required*

*Supply fee: \$40.00*

Students will learn to develop, select, categorize and document their artworks for review in college applications for art school.

## **Performing Arts and Music**

### **Music Theory**

Course 880

*Grades 9-12 – 1 semester – ½ credit*

*Department approval required*

This course is designed for serious music students who wish to study music notation and structure with an emphasis on ear training and notational skills necessary to prepare them for advanced study of music in college or IB Music Perspectives.

### **History of Rock & Roll**

Course 884

*Grades 9-12 – 1 semester – ½ credit*

This introductory course traces the history of rock and roll music from its roots in African-American and European traditions to its diversification and distinct styles, as well as its impact on music and culture worldwide. The focus will be on understanding music and basic musical concepts through rock n' roll, as well as sociological and historical concepts brought up through the music. Students will be expected to write about music and complete listening assignments.

### **Independent Study in Music**

Course 890

*Grades 10-12 – 1 semester – ½ credit*

*Department approval required*

Advanced study in music for the student who wishes to pursue music in college. Emphasis may be placed in audition preparation, theory, music technology, composition or music history/literature. Students may sign up for the course more than once.

### **IB Music Perspectives SL**

Course IB611SL

*Grade 11 or 12 – 2 semesters (1 year) – ½ IB credit each semester*

This course examines the diversity of music in culture and time. The elements of music will be explored through a survey of Western Music from the Middle Ages to the present along with traditional and contemporary global music. Students will be prepared to take the Standard Level International Baccalaureate Music Exam. The course has two compulsory parts: Music Production and Musical Perception. Music Production options include Solo Performance (private instruction on voice or an instrument with recitals required), Group Performance option (active membership in a school or community performance group with concerts required), or Creating (composition/arranging). Musical Perception includes analysis of an IB Prescribed Work, analysis of musical genres and styles and creation of a Musical Investigation Multimedia Presentation.

### **String Orchestra**

Course 898

*Grades 9-12 – 2 semesters – ½ credit (meets every other day, alternating with a study hall)*

Students learn techniques for playing orchestral string instruments (violin, viola, cello, and bass) and to perform varied orchestral literature. The orchestra, combined performs at several concerts, both as a string ensemble as well as combined with winds and percussion, forming a full orchestra. Concert attendance (3 Sundays out of the year) is mandatory. Emphasis is placed on ensemble performance techniques.

### **Choir**

Course 893

*Grades 9-12 – 2 semesters – ½ credit each semester*

This vocal music ensemble studies liturgical, concert and popular literature and performs for liturgical services, holiday programs, concerts, and special events. Students learn individual and ensemble singing techniques.

### **Jazz Combo**

Course 895

*Grades 9-12 – 2 semesters – ½ credit each semester*

*Approval of director required*

This instrumental music ensemble studies jazz styles for students who play saxophone, trumpet, trombone, piano, bass, guitar or drums. Jazz improvisation and styles are studied. The Jazz Combo performs in concert and at special events.

### **Concert Band**

Course 892

*Grades 9-12 – 2 semesters – ½ credit each semester*

*Approval of director required*

This is an opportunity for students who play wind or percussion instruments to rehearse and perform concert band literature and chamber music. Students will have mandatory performances three times in the spring semester and at OMEA solo and ensemble in late January or early February. Students in this class should expect to perform with the Symphonic Band.

**Note:** This course may be taken for pass/fail credit and may be taken more than once.

### **Jazz Ensemble**

Course 895A

*Grades 9-12 – meets after school Tuesdays, Wednesdays, and Fridays – ½ credit*

*Approval of director required*

This instrumental music ensemble studies jazz styles for students who play saxophone, trumpet, trombone, piano, bass, guitar or drums. Jazz improvisation and styles are studied. The Jazz Ensemble performs in concert and at special events.

**Note:** This course may be taken for pass/fail credit and may be taken more than once.

### **Symphonic Band**

Course 896

*Grades 9-12 – meets after school Tuesday-Friday, 4:30-5:45 beginning November – ½ credit*

*Approval of director required*

This instrumental music ensemble studies concert literature and performs at the OMEA Large Group Assessment and in concert during the third and fourth quarters.

**Note:** This course may be taken for pass/fail credit and may be taken more than once.

### **Marching Band**

Course 899

*Grades 9-12 – summer and afterschool – ¼ credit*

*Approval of director required*

Combines musical performance and visual movement. The Marching Band performs at all home and away football games, several parades, and band competitions throughout the summer and fall. During late June through August rehearsals will be on Tuesdays, Wednesdays, and Fridays from 6:30 pm until 9:00 pm. During the football season, full band rehearsals are held on a regular basis on Tuesday through Friday afternoons from 3:45 pm until 5:45 pm. One rehearsal per week (usually Tuesday) will be from 6:30 until 9:00 pm. The dates and times of rehearsals and performances are published on a calendar to be distributed at the start of the course. Open to students of Catholic girls' high schools with the additional approval of the school principal, music director, and parent.

**Note:** This course may be taken for pass/fail credit and may be taken more than once.

## **Technical Theatre**

Course 886

*Grades 10-12 – after school – ¼ credit*

*Approval of director required*

Open to sophomores, juniors and seniors with leadership roles in stage or technical crews. (Participation in at least 2 previous shows is required.) Students will explore details of set design and construction, lighting, sound and directing a show. Course is taken in conjunction with the fall and spring theatrical productions. A student may sign up for the course more than once.

**Note:** This course may be taken for pass/fail credit.

## **Theatrical Performance**

Course 887

*Grades 9-12 – after school – ¼ credit*

*Approval of director required*

Open to students in grades 9 through 12 with principal roles in stage productions. Acting, stage movement, singing, and dancing will be explored as part of a collaborative stage presentation. This course is taken in conjunction with the fall and spring theatrical productions. A student may sign up for the course more than once.

**Note:** This course may be taken for pass/fail credit.

## **Film**

### **Introduction to New Media**

Course 830

*Grade 9 – 1 semester – ½ credit*

Offered for the first time ever in the Fall of 2016, Introduction to New Media pledges to make the young men of St. Edward more aware of how video-based communication, social media, digital messaging, websites, and other emerging means of communication both shape our identities and can be used by us to shape our relationships and environments. We will, in other words, explore ways in which contemporary advertisements, films, documentaries, social media posts, etc. attempt to influence our thoughts and emotions, and in turn will collaborate to create projects in which we demonstrate an ability to authentically and ethically represent ourselves in these mediums.

### **Introduction to Film Analysis and Production**

Course 831

*Grades 10-12 – 1 semester – ½ credit*

This class is designed to empower young filmmakers to: 1.) thoughtfully use cinematography to tell original, visually-based stories; 2.) write compelling, three-act screenplays with clear "character arcs", and; 3.) familiarize themselves with the fundamentals related to audio/video hardware and software. Throughout this course, students will be provided with the academic tools that will enable them to begin viewing film as a powerful storytelling medium – more specifically we will critically view, write about, and seminar on engaging contemporary works within the coming-of-age and horror/suspense genres. And we will do so not only to develop an appreciation for film and an ability to thoughtfully discuss works in the medium, but also to ground and inspire our own original short films, the creation, production, and editing of which will comprise the bulk of the course.

### **Advanced Film Analysis and Production**

Course 832

*Grades 11-12 – 2 semesters – ½ credit each semester*

*Prerequisite: Introduction to Film Analysis & Production*

Like the Introduction to Film Analysis & Production course, Advanced Film challenges students to view film critically as a means of inspiring and shaping their own authentic, collaborative film

projects; however, the Advanced course also empowers Film students to explore more challenging and exciting genres – science fiction, film noir, construction of reality – and design more daring and experimental film projects, including a Foley art project, which entails recording all original audio effects for a Pixar short film, as well as the infamous “one shot” short film, which challenges students to design, map, rehearse, produce, and edit a narrative that unfolds over the course of a single take. In addition, students who enroll in Advanced Film will have access to the most sophisticated hardware and software St. Edward’s Film Department boasts, including Canon Rebel DSLR cameras, Zoom field recorders, and Apple’s Final Cut Pro X. Advanced Film students will, moreover, write, film, and produce the bulk of the SETV episodes/comedy skits ordered by the Administration for the 2015-2016 school year.

### **IB Film Studies SL**

Course IB601SL

*Grade 11 or 12 – 2 semesters (1 year) – ½ IB credit each semester*

*Prerequisite: Intro to Film Analysis & Production (for those not pursuing the IB diploma only)*

### **IB Film Studies HL**

Course IB603HL/IB604HL

*Grade 11-12 – 4 semesters (2 years) – ½ IB credit each semester*

The SL and HL Film courses empower students both to critically analyze some of the greatest films from around the globe and collaborate with peers to create authentic short films that feature sharp, imaginative cinematic storytelling. Over the course of one (SL) or two (HL) years, students will acquire the skills needed to create their own short films through a wide variety of film production lab exercises; both versions of IB Film are largely dedicated to the production of short, original films, complete with an original score and 60 second trailer (HL only). Moreover, students will be provided with the academic tools that will enable them to trace and appreciate socio-culturally significant developments within film. Students do so via the creation of an Independent Study (which challenges students to select, view, and analyze two to four films that share significant thematic, cinematic, or genre-based traits, and then record their findings in a documentary-style script), and an Independent Presentation (which challenges students to discuss the relevance, cinematography, genre, socio-cultural significance, and legacy of a film masterpiece – think *The Godfather*, *Breaking Bad*, *Psycho*).

**NOTE: The following courses may be taken to fulfill a Fine Arts requirement:**

- Fundamentals of Design II
- IB Design Technology

## DEPARTMENT OF PHYSICAL EDUCATION

**The following Physical Education credits are required:**

Grade 9	Health
Grade 9-12	½ credit of Physical Education (earned through classes) <u>or</u> Physical Education Exemption (earned through 2 seasons of sport or Marching Band participation)

### **Health**

Course 911

*Grade 9 – 1 semester – ½ credit – required*

This course examines personal health hygiene, anatomy and physiology, with some emphasis placed on drug/alcohol education and sex education.

### **Physical Education**

Course 915

*Grades 9-12 – 1 semester – ¼ credit – required of all students not exempt through sport and/or marching band participation*

Emphasis is on the formation of a healthy lifestyle incorporating fitness and leisure time activities. Individual and dual activities are taught as equipment allows. Team sports are played with class teams engaging in round-robin tournaments. The student will also gain firsthand experience in different types of weight training, including free weights, machines, plyometrics, circuit training, rubber band resistance, and manual resistance. Great emphasis will be placed on learning proper technique and safety for free weights. The training will be primarily ground based with a strong emphasis on stabilizer muscles. Students may take this course more than once.

### **PHYSICAL EDUCATION EXEMPTION**

Two semesters of physical education are required in order to graduate from St. Edward High School – or any high school in Ohio – but a recent change to Ohio law allows for an exemption for any student who, during high school, “has participated in interscholastic athletics, marching band or cheerleading for at least two full seasons” [O.R.C. 3313.603(L)]. Thus, a student who plays any combination of St. Edward’s 16 sports at any level—freshman, JV or varsity—or marching band or cheerleading for a total of two seasons is exempt. In the case of an exemption, the student would be excused from P.E. classes, but his total number of credits for graduation would not change, therefore he would have to replace P.E. with other academic electives or simply continue to take P.E. as an elective. The exemption would be noted on the student’s official transcript.



## **INTERNATIONAL BACCALAUREATE**

### **IB Theory of Knowledge**

Course IBTOK1/IBTOK2

*Grade 1 (second semester) & 12 (first semester) – 2 semesters – ½ credit each semester – required of students enrolled in the IB diploma program*

Theory of Knowledge (TOK) is a course of at least 100 hours over the first and second years of the IB Diploma Programme that is designed to challenge students to think critically about their own knowledge claims, the knowledge claims made by others, as well as the subject of knowledge itself. Students will explore the role that reason, emotion, language, and perception play in one's ability to acquire knowledge. Students will also evaluate the similarities, and differences, of knowledge claims across different areas of knowledge; e.g. knowledge claims in ethics versus those made in the natural sciences. An essay written on a prescribed topic, as well as a group presentation, makes up TOK's IB assessment.

## **INDEPENDENT STUDY AND CREDIT FLEXIBILITY INFORMATION AND GUIDELINES**

In accordance with Ohio law, Credit Flexibility applies to any alternative coursework, assessment and/or performance that demonstrates proficiency qualified to be awarded equivalent graduation credit as applied for and approved in advance by the school. Approved credit awarded through this policy will be posted on the student's transcript and counted toward student grade point average (GPA) and as graduation credit in the related subject area or as an elective.

### Application:

Any student may apply for credit to be awarded through Independent Study or Credit Flexibility. The student will submit an application on the **Application for Credit Flexibility** form. All required information must be provided. The student may be required to provide supporting documentation as determined by the School Counselor and/or Principal or designee of the Principal. Application may be made at any time. Work completed prior to the approval of an application will not be eligible to count toward credit.

### Review of Application:

The application will be reviewed by the school counselor(s) and Principal or designee of the Principal. Upon approval of a completed application, the student may then proceed with the learning activity and credit will be awarded when all requirements are completed and evaluated. The Principal or designee may consult with the facilitator of the related department or others as needed to provide needed information prior to making a decision regarding the awarding or denial of credit.

### Awarding credit:

A student may be eligible to receive credit upon satisfactory completion of the coursework, activity, assessment and/or performance as required by the Principal or designee. The following standards and guidelines apply to awarding credit:

- The total number of credits that may be awarded is not limited.
- The successful completion of a preapproved course may result in credit being designated as fulfilling either required or elective credit toward graduation requirements.
- All courses, as applicable, must be aligned to the Ohio Academic Content and Technical Standards to receive credit.
- Credit from other districts and educational providers, including online providers, may be accepted in accordance with the Ohio Operating Standards as determined by St. Edward High School. A student will not be granted credit if he participates in courses through outside sources without prior approval.
- The Principal or designee may award credit for custom learning activity(s) in the amount approved in advance based upon the equivalence to a 120 hour (Carnegie unit) course. In preapproved cases, partial credits may be awarded where deemed appropriate.
- The Principal or designee may award credit or partial credit for preapproved assessments, performances or work products that demonstrate mastery of content of any course offered at St. Edward High School. Elective credit for courses not offered at St. Edward High School may also be earned in this manner as preapproved.

- Honors or Advanced Placement (AP) courses may not be taken through credit flexibility. There are NO weighted grades for credits earned through credit flexibility.
- The Teacher of Record reserves the right to withdraw the student from a course (with penalty) for issues involving plagiarism and copyright violation.
- The student must complete all coursework assigned by the Teacher of Record on or before the due date or the student may be withdrawn with penalty from the course.
- The decision of the Teacher of Record regarding a withdrawal from the course may be appealed to the Principal. A letter outlining the reason(s) for the appeal must be received by the Principal within 10 calendar days following notification of withdrawal.

### Determining Grades

- Grades earned through Independent Study and/or Credit Flexibility will NOT be weighted. The letter grade to be posted on the transcript and included in the student's grade point average will be awarded as determined by the Teacher of Record.
- If a student fails to make adequate progress on coursework, the approval to further pursue the proposed credit may be revoked and a failing grade will be posted to the student's transcript.
- The final grade for the course must be posted before the credit can count toward graduation.
- If a student is unable to complete the course due to illness (with provided medical documentation) or other valid reason as determined by the Principal or designee, an extension may be permitted and/or requirements revised. If the student does not intend to complete the credit and there has been an illness or other valid reason, the application may be withdrawn without penalty by the Principal or designee.
- Should a student transfer to another school, upon request of the student or parent, St. Edward High School shall forward a copy of the approved application to the new school for their consideration.

### Access

This policy does not in any way prohibit access to online education, postsecondary options or services from another district.

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**APPLICATION FOR CREDIT FLEXIBILITY**

*This application must originate in THE COUNSELING CENTER  
with a conference between student and counselor.*

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**STUDENT INFORMATION**

Student Name \_\_\_\_\_ Grade \_\_\_\_ ID # \_\_\_\_\_

**STUDENT OBJECTIVE** The student should briefly explain his goals and why credit flexibility is a suitable means to meet them:

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**COURSE INFORMATION**

Core Subject Area field (e.g. Physical Science, Fine Arts, Social Studies, etc.):

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Should the student be scheduled with a particular teacher or resource? \_\_\_\_ Yes \_\_\_\_ No

If yes, specify which teacher or resources and which semester(s) \_\_\_\_\_

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Course duration: (1 or 2 semesters or summer) \_\_\_\_\_

Course credit attempted: \_\_\_\_\_ School Year: \_\_\_\_\_

**ACTION PLAN**

Description of what student will do to earn this credit (check all that apply):

- \_\_\_\_\_ Coursework
- \_\_\_\_\_ Field experience
- \_\_\_\_\_ Mentorship
- \_\_\_\_\_ Internship
- \_\_\_\_\_ Educational Travel

Name and contact information of organization and/or individual(s) to support your proposed credit earning activity (attach additional pages where necessary):

Name(s): \_\_\_\_\_  
Title(s): \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ Email: \_\_\_\_\_

**A. Written instructional plan (attach separate sheets if needed)**

**1. Course content**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. Learning outcomes**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**3. Applicable course standards**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. How student will demonstrate proficiency

a. The grade will be determined by: \_\_\_\_\_

b. Assessment Instrument(s) or Educational Program to demonstrate proficiency: \_\_\_\_\_

c. Minimum threshold needed to award credit:

1. \_\_\_\_\_ % on assessment stated in (b) above **OR**
2. \_\_\_\_\_ score on rubric stated in (b) above **OR**
3. \_\_\_\_\_ % completion of performance stated in (b) above **OR**
4. \_\_\_\_\_ score on an established testing instrument stated in (b) above.
5. \_\_\_\_\_ other listed below:

I, (student signature) \_\_\_\_\_, understand the Independent Study/Credit Flexibility Option is an intensive process designed to allow me to work at my own pace to complete the assigned work.

The student and parent must initial each item below as indication of having read and accept the following:

Parent Student

\_\_\_\_\_ The student will hold primary responsibility for the overall success or failure of the course.

\_\_\_\_\_ The student will be expected to allocate an average of \_\_\_\_\_ hours per week working toward the completion of this course.

\_\_\_\_\_ The student will be expected to meet with teacher at least \_\_\_\_\_ time(s) per week.

\_\_\_\_\_ The student will actively engage with the teacher and course activities by \_\_\_\_\_ or the student may be withdrawn from the course.

\_\_\_\_\_ The student will have until \_\_\_\_\_ to complete the course or the student may be withdrawn with penalty from the course.

\_\_\_\_\_ The student's teacher and/or other school authorities have the right to cancel this course/credit option if: (1) the student violates any rule/policy stated in the Student/Parent Handbook; (2) the student does not regularly and actively engage with the teacher and course material by \_\_\_\_\_; or (3) the student does not make steady progress toward completion of the course.

The student and parent must initial each item below as indication of having read and accept the following:

Parent Student

\_\_\_\_\_ The student must complete all online AS WELL AS offline/other work assigned by the due date stated by the teacher or the student may be withdrawn with penalty from the course.

\_\_\_\_\_ The Instructor reserves the right to remove the student from the course (withdrawn with penalty) for issues involving plagiarism and copyright violation.

\_\_\_\_\_ There are NO weighted grades for credits earned through independent study/credit flexibility.

**SIGNATURES/ROUTING**

Student \_\_\_\_\_ Date \_\_\_\_\_

Parent \_\_\_\_\_ Date \_\_\_\_\_

School Counselor \_\_\_\_\_ Date \_\_\_\_\_

Teacher of Record \_\_\_\_\_ Date \_\_\_\_\_

Principal or Designee \_\_\_\_\_ Date \_\_\_\_\_

NOTES: