Xaverian High School
Course of Studies Book
2019-2020

“The Truth Shall Set You Free”
~John 8:32

A Xaverian Brothers Sponsored School
Accredited by the Middle States Association | Accredited by the New York State Board of Regents
Xaverian has a diverse student body and offers academic programs which address the needs and interests of each student. Over ninety-five percent of the student body will attend 2-4 year colleges. All students who qualify, regardless of their initial placement, are in a college preparatory program and are eligible for Honors, Advanced Placement (AP), Syracuse University and St. John’s University courses. This qualification must be maintained from year to year. Our policy is to enhance the opportunity for high level academic programs for all students who exhibit the motivation, desire, skills required for success.

The design of the Academy at Xaverian High School is streamlined for students to procure a Regents Diploma or an Advanced Regents Diploma. In addition to the required core course, there are numerous opportunities for students to select coursework from the variety of electives available. Students in the Academy program are encouraged to challenge themselves by taking higher level classes (AP, St. John’s, Syracuse etc.) based on their personal interests and areas of strength. Additionally, the Equity Program, nested within the Academy Program, offers comprehensive support to meet the educational needs of college bound students diagnosed with learning disabilities.

Upon the conclusion of freshman year, students in the Honors Program progress into one of the Advanced Placement (AP) Specialty Programs. These Pre-Professional Pathways allow talented students to explore future college and career interests. All programs consist of core requirements at the AP and college level in Religion/Philosophy, English, History, Language, Math, & Science. In addition to the core, students are given the option to specialize in Biomedical Science, Engineering, Computer Science, Business & Economics, Law & Political Science, or design their own areas of concentration (i.e. Art, Music, Theater) by selecting our Honors Liberal Arts Program. All students in the Honors Programs are required to complete a supervised internship in their senior year. Opportunities to earn college credit are available through AP exams as well as dual-enrollment courses with colleges such as St. John’s University and Syracuse University.

The Specialized Studies Program is designed for students who demonstrate the cognitive capacity to master a rigorous college preparatory program, but whose academic performance is significantly compromised by a documented learning disability. The Ryken Educational Center is a New York State approved and sponsored program that offers a structured, small class (12-1-1) learning environment to students who are diploma-bound. All services are provided in accordance with the students’ Individualized Education Program services and goals.
This course of studies booklet will help students formulate their schedule for the respective academic year. Grade level assemblies will be conducted by an administrator to assist students in choosing the appropriate courses according to grade level. Students are advised to consult with their current teachers and guidance counselor prior to choosing an elective. Students must remember that there are required courses which must be completed in order to graduate. Choices made by students will be reviewed by the respective department and will require parent approval.

Xaverian High School

DIPLOMA REQUIREMENTS

<table>
<thead>
<tr>
<th>COURSE</th>
<th>XHS DIPLOMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion/Cultural and Ethical Studies</td>
<td>4 credits</td>
</tr>
<tr>
<td>English</td>
<td>4 credits</td>
</tr>
<tr>
<td>Social Studies</td>
<td>4 credits</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4 credits</td>
</tr>
<tr>
<td>Science</td>
<td>3 credits</td>
</tr>
<tr>
<td>Modern Language</td>
<td>3 credits</td>
</tr>
<tr>
<td>Health Education</td>
<td>0.5 credits</td>
</tr>
<tr>
<td>Electives/Sequence Requirements</td>
<td>3 credits</td>
</tr>
<tr>
<td>Physical Education</td>
<td>2 credits (.5 credits per year)</td>
</tr>
<tr>
<td>Research Paper</td>
<td>1 credits (.25 credits per year)</td>
</tr>
<tr>
<td>Senior Involvement</td>
<td>Senior Year Requirement</td>
</tr>
</tbody>
</table>

Total: 28.5 credits*

*The total number of credits earned is based upon the standard program prescribed. Each year, a student’s program must include at least six (6) full credits of study plus Physical Education (.5 credit) and their Research Paper (.25 credit). The actual number of credits earned by an individual student may be more than this total if the student takes required courses either through the various Honors, Academy or Specialized Studies programs or by personal choice and interest. Students with fewer than this prescribed total may graduate only if granted a waiver from the Principal provided they have met all the requirements prescribed by New York State. Students must fulfill 1 credit of Art and/or Music through their Elective/Sequence requirements.
Course Offerings & Special Programs

Religion

English

Social Studies

Language & Cultural Studies

Mathematics

Science

Business & Computer Science

Arts & Humanities

Music

Physical Education

Research Paper Requirements

The Academy Program at Xaverian

College Partnerships

STEM Program

The Honors Program at Xaverian

The Pre-Professional Pathways Honors Programs

The Specialized Studies Program

The School Counseling Department

pages 5 - 9

pages 10-16

pages 17-22

pages 23-25

pages 26-31

pages 32-37

pages 38-40

pages 41-42

page 43-44

page 45

pages 46-47

page 48

page 49

page 50-56

page 57-58

pages 59-62

pages 63-74

page 75
#1120 Religion 9 (H)

The aim of the Honors course complements the freshman curriculum (see #1122) in providing additional enrichment, especially regarding the relationship between the 21st century student and the great themes of the Catholic religious tradition. It is expected that students will take advantage of available technology to research four topics related to their study, and complete four mini-research projects related to each for inclusion in their Portfolio or presentation to the class, in this instance working alone or with others. Admission to this honors course is based upon acceptance into the Honors program.

Exams: Departmental Midterm Exam in January and Final Exam in June

#1122 Religion 9

The Freshman religion curriculum reflects the content of the Catechism of the Catholic Church by introducing students, both cognitively and affectively, to the most important themes of the Judeo-Christian religious tradition:

(a) understanding our personal identity in response to God’s call to a personal relationship with Him and with our neighbor;
(b) our Faith which finds its basis in God’s Revelation and its goal in our Covenant friendship with all persons of good-will;
(c) the unique reality of Jesus’ humanity and divinity, especially as he brings us life through his life, death, resurrection and ascension;
(d) our vocation to be sharers in the great community of the Church, guided by the Holy Spirit;
(e) the role of Scripture as the inspired Word of God, and the role of Tradition in handing on a living Faith to us in our own times;
(f) the sacredness of our own lives which is brought to greater fullness in the Sacramental life of the Church, especially in the celebration of Eucharist;
(g) the awareness that the sacredness of our own identity is also a call to living a Moral life that is sustained by prayer and a commitment to a personal spirituality. Assisted by Campus Ministry, students will have a Service requirement during each marking period. The freshman year, then, essentially and integrally introduces the major themes for the full four year program of Religious Education

Exams: Departmental Midterm Exam in January and Final Exam in June

#2120 Religion 10 (H)

The aim of this Honors course is to complement the Sophomore curriculum (see #2122) by providing additional enrichment which relates Old and New Testament themes to material being studied in other disciplines, especially Literature, Language and Social Studies, so that students may gain a greater appreciation for the relationship of faith knowledge to the wider scope of learning. Students will use available technological resources to research and complete four mini-research projects for inclusion in their portfolios. One, specific enrichment opportunity enables students to engage social justice issues as they are set forth in the Sermon on the Mount. In addition, a larger sophomore research paper is a course requirement. Admission to this course is based upon previous year’s final average of 85% or above, and/or previous teacher’s recommendation.

Exams: Departmental Midterm Exam in January and Final Exam in June
# 2122 Religion 10

During sophomore year, the student is more fully involved in the scriptures of the Judeo-Christian tradition. Divine Revelation is seen as undergirding this study, and both the desire to know God and true knowledge of God is understood in terms of Grace. Primary emphasis rests on the person and teachings of Jesus: the Incarnation, Redemption and the Paschal Mystery. The miracle and mystery of Jesus Christ himself, true God and true man, permeates our human history and constitutes the history of our salvation. Our study of Jesus is rooted in both the Hebrew Scriptures and the Christian Scriptures. Thus, Creation, the stories of human sin, the Exodus experience, the challenge of the Prophets and the Prayers of the Psalms are intimately related to this history of salvation that continues in the power of the Holy Spirit, who enlivens our understanding of Jesus in our Study of the Gospels, and our encounter with him in our Sacramental celebrations. Integral to this and complementing the reflective elements introduced in the Freshman Curriculum, and again with assistance from Campus Ministry, students will have the opportunity to become more personally involved in: (a) an understanding of the gospel in terms of Call and Commissioning which involves the student in a spirit of prayer and recollection, as it challenges him to seek after that Call to his life and find opportunities to live that Call; (b) to understand that the Gospel Message and the Mission of the Xaverian Brothers Sponsored Schools which involves a concern for the poor and a response by projects of Service; (c) an understanding that students are writing their own life Parables, as they see the biblical message in the context of modern life and living. Assisted by Campus Ministry, students will have a Service requirement during each marking period. The Sophomore curriculum prepares students for Junior religion which applies the message of Jesus to the mission and teaching of the Church which grew following His life and continues today. The sophomore research paper is a course requirement.

Exams: Departmental Midterm Exam in January and Final Exam in June

# 5034 Morality & Social Justice: (taken in conjunction with #3229: AP Language and Composition)

This course is the central element for all juniors in the full AP Honors Program only. Building on the experience of the previous two years of the Catholic religious tradition and Scripture study, the course will look at the experience of Catholic morality in the modern world. Among the topics presented will be the God Question, the Nature of Humanity, Good & Evil, and the moral responsibilities of individuals in a world seeking social justice. Students will read primary sources, theologians and philosophers, who have defined these questions for the Western world.

* This course is mandatory for all students in any of the AP Honors Programs.

# 3120 Religion 11 (Honors)

The aim of this course is to complement the Junior curriculum (see #3122) by providing additional enrichment which relates to Church Issues and Moral issues today, so that students connect faith-knowledge to the wider scope of learning; this, often within a global perspective. Specifically, there will be greater emphasis on higher order thinking and writing skills; students will have an opportunity for more in-depth reflection, especially on Social Justice, its principles and the bases of Church teaching on this subject, especially as this is found in sacred scripture and the major documents that are part of the continuing magisterium of the Church as it attempts to assist the needs of the local and world community.
Admission to this course is based upon previous year’s final average of 90% or above, and/or previous teacher’s recommendation.

Exams: Departmental Midterm Exam in January and Final Exam in June

#3122 Religion 11

The Junior year maintains continuity with the Freshman and Sophomore curriculums as students are challenged to discover how the Covenant, first articulated in the Hebrew Scriptures, and renewed in the life, death, resurrection and ascension of Jesus, continues in the mission and witness of the Church. The Junior Year study then will have two components. First, is a study of the Church. The course will encourage the students to participate in the Catholic Church in order to have a real and living encounter with Jesus Christ. The Church is the living Body of Christ, with both human and divine elements. In this course, the students will learn about key events in the Church’s human history, but always with an eye to her divine mission. Secondly, the course is a study of Morality and the personal challenge to develop conscience; to understand the teaching of the Church on a variety of issues; and to understand that this finds articulation in their commitment to moral life and living. Students will be assisted by Campus Ministry in preparing for participation in the CHIPS soup kitchen as part of the Junior Retreat.

Exams: Departmental Midterm Exam in January and Final Exam in June

#4136 Religions of the World

In a multicultural city, pluralistic country, and globalized world, understanding cultures and religious traditions is a key skill within government, business and society. This course is a critical introduction to the study of world religions, exploring the beliefs, rituals and ethical ideals of representative religious manifestations of past and present.

Exams: Departmental Midterm Exam in January and Final Exam in June

#4138 St. John's University Perspectives on Christianity - A Catholic Approach

In examination of our current times, this course promotes the Christian teachings and provides Seniors an opportunity to synthesize the various aspects of Catholic theology that they have encountered in their first three years. This course incorporates "an introduction to Christianity highlighting belief statements, practices, scripture, rites, theological writings, artistic expressions, and other discourses manifesting and expressing the Christian faith in its various traditions through its development" (St. John's University).

Exams: Departmental Midterm Exam in January and Final Exam in June

*Students successfully passing this course will be eligible to receive 3 college credits through St. John's University. Students will be responsible for all additional fees charged by St. John's as well as completing any required applications for acceptance to the College Advantage Program.

#4137 Prophets and Peacemakers: A Course in Leadership

In the twenty-first century, strong leaders are needed throughout society. Within this course students will study examples of leadership within and outside the Catholic tradition, theories of leadership, as well as look to develop their own leadership skills. Students will examine the prophetic tradition both within
scripture and modern day society and additionally recognize the impact that their own leadership can have on the world day.

#4140 Philosophy of God

This course aims to, in the words of the First Vatican Council, show how the human mind can discover God’s existence and His basic divine attributes independently of His self-revelation in Scripture. As students transition from high school to college, they often encounter philosophical and metaphysical questions. For the most part, modern and contemporary philosophy is deist if not outright atheistic. Students who have never studied philosophy may not know that the existence of God can be known through human reason, often resulting in a crisis of faith. This course will introduce students to philosophy as a science and from there focus heavily on philosophers who aim to know the existence of God. While students will be introduced to deist and atheist philosophers, the focus will be on not necessarily studying them for their own sake but rather using God’s gift of reason and theist thought to refute them.

Exams: Departmental Midterm Exam in January and Final Exam in June

NOTE: It is understood that the courses of study outlined above represent the more cognitive aspects of the religion curriculum. However, religious education, properly so called, must aim at “formation” which is accomplished by a variety of “affective activities” that involve students on a more personal level in appropriating to themselves a clearer relationship with God, Christ, Church and Sacraments, whether that be through music, film the arts, literature, and current events.
The Senior Involvement Program

The Senior Involvement Program, is a requirement for graduation and is a concerted effort on the part of Xaverian High School faculty and students to serve the New York community in areas of social need. It reflects the sponsorship philosophy of the Xaverian Brothers who view education in their schools as having a higher purpose. They believe that education should foster in a student a desire to serve their families and community. Student and faculty are inspired to appreciate the faith in their lives, to understand their community in a global as well as local sense, and to realize that service to others is basic to the Gospel message of Jesus. Senior Involvement affords each senior the opportunity to deepen his awareness of social justice issues and to act upon that increased consciousness. Specifically, the goals of the program can be summarized as follows:

- to deepen students' personal development through increasing self-awareness, nurturing self-actualization and confidence, and encouraging them to accept responsibility for living lives committed to Justice and Peace.
- to move the students to ownership of their response to the needs of others.
- to break down stereotypes, prejudices, ignorant preconceptions and fears that one may associate with racial and ethnic groups, the physically disabled, developmentally delayed, and the poor.
- to build the school's faith community.
- to strengthen each student's faith and to help each one explore vocational possibilities.
ENGLISH DEPARTMENT

GRADE 9

#1220 English 9 (H)
Course Theme: Human Values: Honor, Strength, Integrity, and Character
The curriculum for this reading and writing intensive course is an accelerated version of the English 9 (#1222) program. Provided with the basic tools for active reading, students investigate the effects of literary techniques and rhetorical strategies in an array of challenging pieces, including selections from Homer's The Iliad, William Shakespeare's Julius Caesar, Lorraine Hansberry's A Raisin in the Sun, and Lee and Lawrence's Inherit the Wind. Furthermore, various complex informational texts serve as the basis for analyzing a writer's purpose and tone. Consistent instruction in style and craft reinforces the students’ ability to produce competent and structured essays that analyze, argue, synthesize, and compare/contrast. Likewise, all freshmen conduct the step-by-step process for completing a research paper in accordance with MLA style and format standards. With an emphasis on reading for context clues, students focus on academic vocabulary and the study of Latin/Greek roots and prefixes.
Exams: Departmental Midterm Exam in January and Final Exam in June

#1222 English 9
Course Theme: Human Values: Honor, Strength, Integrity, and Character
The focus of this course is on reading for critical analysis and writing for effective communication. Given the basic tools for active reading, students investigate the effects of literary techniques and rhetorical strategies in an array of works, including William Shakespeare's Julius Caesar, Lorraine Hansberry's A Raisin in the Sun, John Steinbeck's Of Mice and Men, and William Golding's Lord of the Flies. Furthermore, various complex informational texts serve as the basis for analyzing a writer's purpose and tone. Consistent instruction in style and craft reinforces the students’ ability to produce competent and structured essays that analyze, argue, synthesize, and compare/contrast. Likewise, all freshmen conduct the step-by-step process for completing a research paper in accordance with MLA style and format standards. With an emphasis on reading for context clues, students focus on academic vocabulary and the study of Latin/Greek roots and prefixes.
Exams: Departmental Midterm Exam in January and Final Exam in June

GRADE 10

#2220 English 10 (H)
Course Theme: The Individual in Conflict: Conscience, Cause, and Corruption
An accelerated version of the 2222 course, students further explore the world of literary characters who face difficult personal, moral, spiritual, psychological, and religious choices, often perceived as “outsiders” as a result of their heroic feats or tragic flaws. Through works such as the epic poem Beowulf, William Shakespeare’s Macbeth, Reginald Rose’s Twelve Angry men, J.D. Salinger’s The Catcher in the Rye, along with other supplementary nonfiction works, students read and analyze several challenging pieces of literature and engage in writing for literary analysis and interpretation. An attention to a writer's craft, tone, and style complements the students’ ability to produce critical essays that interpret, evaluate, analyze, argue, and
synthesize. In addition to text-appropriate vocabulary, students read for context clues and for the nuances of a writer's diction in both fiction and nonfiction. In preparation for the ELA Common Core Regents exam in the junior year and the SAT and ACT exams, students read closely and critically, and produce text-based arguments and analyses in addition to writing from a variety of perspectives. Each student maintains an online writing portfolio of his or her written and revised pieces and fulfills several individual or group presentation components.

Exams: Departmental Midterm Exam in January and Final Exam in June

**Admission to this course is based on: 1) approval of the English Department, 2) an overall 93% average in freshman English, or 90% in English 9(H) 3) the student’s conduct appropriate for an intensive reading and writing course, and 4) an evaluation of the student’s formal writings from freshman year.**

#2222 English 10

**Theme: The Individual in Conflict: Conscience, Cause, and Corruption**

With the focus remaining on critical reading and writing, students further explore the world of literary characters who face difficult personal, moral, spiritual, psychological, and religious choices, often perceived as “outsiders” as a result of their heroic feats or tragic flaws. Through works such as the epic poem *Beowulf* and William Shakespeare’s *Macbeth*, along with other supplementary works, including Reginald Rose’s *Twelve Angry Men*, J.D. Salinger's *The Catcher in the Rye* along with other supplementary and nonfiction works, students read and analyze several pieces of literature and engage in writing for literary analysis and interpretation. An attention to a writer's craft, tone, and style complements the students’ ability to produce critical essays that interpret, evaluate, analyze, argue, and synthesize. In addition to text-appropriate vocabulary, students read for context clues and for the nuances of a writer's diction in both fiction and nonfiction. In preparation for the ELA Common Core Regents exam in the junior year and the SAT and ACT exams, students read closely and critically, and produce text-based arguments and analyses in addition to writing from a variety of perspectives. Each student maintains an online writing portfolio of his or her written and revised pieces and engages in individual and small group presentations.

Exams: Departmental Midterm Exam in January and Final Exam in June

#2252 English Elective: 1 Semester of Introduction to Journalism + 1 Semester of Creative Writing

**Introduction to Journalism:** This course is designed to introduce students to the principles of journalistic writing, the basic elements and issues of news stories, and the expository and investigative techniques essential for successful communication in journalism. Students also study the fundamentals of gathering, writing, reporting, and editing the news. Emphasis is placed on writing for accuracy, brevity, clarity, and the discussion of media responsibility and ethics. Students are responsible for the publication of the Xaverian newspaper The X-Press. Each student maintains a writing portfolio of written and revised pieces.

**Creative Writing:** This course is designed to introduce students to the basic elements of fiction writing and to help them hone their writing abilities beyond the traditional five-paragraph essay. Students will navigate the writing process by brainstorming story ideas for a variety of writing forms (flash fiction, personal narratives, poetry, genre writing, etc.), workshopping drafts in class, and maintaining a portfolio of published work. Writers in the class will be expected to submit final pieces to *The Voyager*, Xaverian’s art and literary magazine.
• This is an approved elective course for sophomore or junior students in the honors or academy programs.
• Admission to this course is based on: 1) English Department evaluation of the student's formal writings in freshman or sophomore English, and 2) a personal creative writing sample (upon request).
• **Students registering for this course are registering for both Introduction to Journalism and Creative Writing, each one being one semester long with a different teacher.**

**GRADE 11**

#3229 AP English Language and Composition
In preparation for the Advanced Placement English Language and Composition exam given in May, this course engages students in becoming skilled readers of prose written in a variety of rhetorical contexts, and in becoming skilled writers and presenters who compose for a variety of purposes, including arguing, synthesizing, and analyzing. Both their writing and their reading should make students aware of the interactions among a writer’s purpose, audience expectations, and subjects, as well as the way generic conventions and the resources of language contribute to effectiveness in writing. Each student maintains a writing portfolio of written and revised pieces. By analyzing complex texts, students also prepare for the critical reading and writing sections on the SAT and ACT.

Exams: NYS ELA Common Core Regents & AP Midterm in January and the AP Exam in May
• This course is an approved course for students in any of the Honors Programs.
• For all AP exams, the College Board charges testing fees, which will be added to Xaverian’s tuition bills.
  **Admission to this course is based on:**
  1) approval of the Assistant Principal for Academics or the Dean of Students and the English Department,
  2) 90% English 10 (H),
  3) 93% English 10,
  4) Score of 23 or higher on Pre-ACT (English Sub-Test), or a 600 out of 800 on the Reading Section of the PSAT
  5) the student’s conduct appropriate for an intensive reading and writing course, and
  6) an evaluation of the student’s formal writings from sophomore year.**

#3230 English 11 (H)
Course Theme: The Struggle and Search for Self-Identity
An accelerated version of English 11, this course teaches students to examine the themes of morality and conscience, hopes and dreams, perception and reality, and the individual in search of self-identity. All students read August Wilson’s Fences, as well as other works such as Nathaniel Hawthorne’s The Scarlet Letter, Tennessee Williams' A Streetcar Named Desire, and Arthur Miller's Death of a Salesman, thereby reinforcing the skills of literary analysis and argumentation. In preparation for the January NYS ELA Common Core Regents, which all
juniors must pass in order to graduate, students thoroughly review the components of the exam: reading comprehension, textual analysis, and writing from sources. In addition to academic vocabulary, reading for context clues, and the study of Latin/Greek roots and prefixes, students learn how to determine the nuances of text-specific vocabulary. Critical reading and writing skills for the SAT become the focus from February to May. In the spring, students begin the college application essay writing process.

- This is an approved course for students in any of the Honors Programs.

Exams: NYS ELA Common Core Regents in January (midterm exam) and Departmental Final exam in June.

**Admission to this course is based on: 1) approval of the English Department, 2) an overall 93% average in sophomore English, or 90% average in English 10 (H) 3) the student’s conduct appropriate for an intensive reading and writing course, and 4) an evaluation of the student’s formal writings from sophomore year.**

#3226 English 11

**Course Theme: The Struggle and Search for Self-Identity**

This course teaches students to examine literary themes of morality and conscience, rebellion and revolt, perception and reality, and the individual in search of self-identity. All students read August Wilson's *Fences*, as well as other works such as Nathaniel Hawthorne’s *The Scarlet Letter*, Tennessee Williams’ *A Streetcar Named Desire*, and Arthur Miller's *Death of a Salesman*, Sam Shepard's *True West*, and Tim O'Brien's *The Things They Carried*, thereby reinforcing the skills of literary analysis and argumentation. In preparation for the January NYS ELA Common Core Regents, which all juniors must pass in order to graduate, students thoroughly review the components of the exam, focusing on active reading strategies and carefully outlined writing skills for effective analysis and synthesis writing. In addition to academic vocabulary, reading for context clues, and the study of Latin/Greek roots and prefixes, students learn how to determine the nuances of text-specific vocabulary. Critical reading and writing skills for the SAT become the focus from February to May. In the spring, students begin the college application essay writing process. Each student will maintain an online writing portfolio of written and revised pieces.

Exam: English Regents in January (Regents is Midterm Exam grade) and Departmental Final Exam in June.

#3252 English Elective: 1 Semester of Introduction to Journalism + 1 Semester of Creative Writing

**Introduction to Journalism:** This course is designed to introduce students to the principles of journalistic writing, the basic elements and issues of news stories, and the expository and investigative techniques essential for successful communication in journalism. Students also study the fundamentals of gathering, writing, reporting, and editing the news. Emphasis is placed on writing for accuracy, brevity, clarity, and the discussion of media responsibility and ethics. Students are responsible for the publication of the Xaverian newspaper The X-Press. Each student maintains a writing portfolio of written and revised pieces.
Creative Writing: This course is designed to introduce students to the basic elements of fiction writing and to help them hone their writing abilities beyond the traditional five-paragraph essay. Students will navigate the writing process by brainstorming story ideas for a variety of writing forms (flash fiction, personal narratives, poetry, genre writing, etc.), workshopping drafts in class, and maintaining a portfolio of published work. Writers in the class will be expected to submit final pieces to The Voyager, Xaverian’s art and literary magazine.

- This is an approved elective course for sophomore or junior students in the honors or academy programs.
- Admission to this course is based on: 1) English Department evaluation of the student's formal writings in freshman or sophomore English, and 2) a personal creative writing sample (upon request).
- **Students registering for this course are registering for both Introduction to Journalism and Creative Writing, each one being one semester long with a different teacher.**

#3253 Introduction to Speech Writing and Public Speaking

This course is designed to introduce students to the elements of effective speech writing. Through the study of famous speeches by national and international leaders, celebrities and athletes, students will demonstrate an understanding and application of the techniques used in formal public speaking including listening skills, speech preparation, and research methods. Students will prepare speeches to inform, entertain, and persuade. The class will also offer students opportunities to present original and published speeches, where students will deliver their words to a live audience and present his or her practiced performance. In addition to public speaking, further performance opportunities may be included in the area of public oral reading. Students will learn about the role of communication in our lives, the communication model, spatial relationships, delivery styles, and the effectiveness of language, gestures, and organization techniques.

- This is an approved elective course for sophomore students in the honors or academy programs.
- Admission to this course is based on: 1) English Department evaluation of the student's formal writings in freshman English, and 2) a creative writing sample or an analysis essay (upon request).

GRADE 12

#4250 Advanced Placement English Literature and Composition

In preparation for the May exam, this course engages students in the careful reading and critical analysis of imaginative literature. Through the close reading of selected texts, students deepen their understanding of the ways writers use language to provide both meaning and pleasure for their readers. As they read, students consider a work’s structure, style, and themes as well as such smaller-scale elements as the use of figurative language, imagery, symbolism, and tone. Each student maintains a writing portfolio of written and revised pieces. As part of their graduation requirement, all seniors are required to complete a literature research paper in accordance with MLA style and format standards.
Exams: Midterm Exam in January and AP Exam in May

- For all AP exams, the College Board charges testing fees, which will be added to Xaverian's tuition bills.

**Admission to this course is based on:**
1) approval of the Assistant Principal for Academics or the Curriculum Specialist of the English Department,
2) 88% average in AP English Language and Composition,
3) 90% in English 11 (H)
4) 93% in English 11
5) an SAT critical reading score of 600 or higher,
6) at least a 85% on the NYS English Regents exam,
7) the student’s conduct appropriate for an intensive reading and writing course, and
8) an evaluation of the student’s formal writings from junior year.**

#4241 St. John’s English First Year Writing (H)

*St. John’s University College Advantage Program*

Prerequisites:
- Approval of the Academy/Honors Dean and the English Department
- An overall 85% in junior English
- An overall average of 80%
- At least an 80% on the NYS English Regents
- A minimum combined Math and Verbal SAT score of 1080
- An evaluation of the student’s writing portfolio from junior English
- Open to qualified students in the Academy Program
- This is an approved English course for students in the Honors Program
- This course is open to **seniors only** for St. John’s credit

This is an intensive core writing and reading course, which involves an investigation into various means of composing texts and the uses of rhetoric. The course helps students improve their writing, but it also serves to give students an opportunity to experiment with their own developing styles, to explore a range of compositional strategies, to research ideas and topics of relevance to their own lives, and to engage in class discussions and organized debates. The course, therefore, seeks to show that writing is a process of thinking, a powerful medium necessary for the student’s intellectual and professional growth. As part of their graduation requirement, all students are required to complete a course-appropriate research paper in accordance with MLA style and format standards. In preparation for college, students also learn how to write an application essay and prepare for the fall SAT. Each student maintains a “Writing Portfolio” of written and revised pieces.

Exams: Departmental Midterm Exam in January and Final Exam in June
Students who successfully pass this course will be eligible to receive 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.

#4254 English 12: College English
Course Theme: Examining the "Self" and Exploring the "Other"

The college reading and composition course focuses on broadening and enriching the students' perspectives through literary works and informational texts from a variety of points of view, philosophies, and disciplines. Students read, analyze, discuss, tweet, and write about informational texts, essays, plays, and fiction that explore the human experience. As a result, the students grow in awareness of the relationship between the craftsman and his craft. In addition, this course will reinforce previously taught writing skills that allow the students to produce persuasive, analytical, expository, technical, and creative pieces. Therefore, to meet the demands of the real world, students will be expected to communicate through formal presentations, speeches, and debates, as well as practice an array of modes, including writing an editorial, a proposal, and a cover letter and resume. As part of their graduation requirement, all seniors must complete a research position paper in accordance with MLA style and format standards. In preparation for college, student will refine their personal narratives for the college application essay and review for the fall SAT.

Exams: Departmental Midterm in January and Final in May

#4220 Literature and Film

This course explores the complex interplay between film and literature. Selected novels, short stories and plays are analyzed alongside films with similar themes. Additionally, this course introduces students to the basics of film analysis, cinematic formal elements, genre, and narrative structure and helps students develop the skills to recognize, analyze, describe and enjoy film as an art and entertainment form. To understand how films are constructed to make meaning and engage audiences, students will be introduced to the basic “building blocks” and formal elements (narrative, mise-en-scene, cinematography, sound and editing) that make up the film as well as some fundamental principles of analysis, genre, style, performance and storytelling. The class includes weekly reading, screening, and short writing assignments. Students will also examine the visual interpretation of literary techniques and the limitations or special capacities of film versus text to present a literary work (this does NOT mean that the films are chosen in relation to film versions of the same works). In the third quarter, the students will examine how films and literature from similar time-periods portray the human condition and the roles of men and women in various cultures, while the fourth quarter will examine the relationship between man and technology as portrayed in famous films and literature Post-1980.
SOCIAL STUDIES DEPARTMENT

The Social Studies department strives to help students understand and function in the real social world, to be effective as individuals in society, and to be thoughtful, responsible, and active participants in our democratic society.

#1320 Global Studies 9 (H):

The objective of this course is to present to the student an overview of Global History from *primitive times to the Age of Absolutism* and to enhance the skills necessary to excel in both the New York State Global Studies Regents and the Advanced Placement World History exam. Consistent with the AP World History exam, this class necessitates a more advanced textbook, the reading of complex documents, and the completion of challenging essays.

Exams: Departmental Midterm in January and Final in June

#1322 Global Studies 9:

The objective of this course is to present to the student an overview of Global History from *primitive times to the Age of Absolutism* and to enhance the skills necessary to excel in the New York State Global Studies Regents exam. Consistent with New York State Social Studies Regents’ testing, this class will include document analysis and the completion of analytical essays.

Exams: Departmental Midterm in January and Final in June

#2325 AP World History 10:

Prerequisites:

- 88% grade or above in Global Studies 9 (H)
- 92% grade or above in Global Studies 9
- (Academy students who are approved for this course will be required to complete some independent)
- AP work over the summer.)
- Approval of Social Studies Department

The purpose of the AP World History course is to develop greater understanding of the evolution of global processes and contacts, in interaction with different types of human societies. This course highlights the nature of changes in international frameworks and their causes and consequences, as well as comparisons among major societies. It will also emphasize relevant factual knowledge used in conjunction with leading interpretive issues and types of historical evidence. The course will also build upon an understanding of cultural, institutional, and technological precedents that, along with geography, set the human stage. An added requirement of this class is that students will read one historical work of non-fiction. Students in this class will take the World History Advanced Placement exam as well as the Global Studies Regents exam.


*The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.*
#2322 Global Studies 10 (H):

Prerequisites:
- 85% grade or above in Global Studies 9 (H)
- 87% grade or above in Global Studies 9
- Approval of Social Studies Department

The content objectives of this course are identical to those of the above Global Studies course with the addition of enrichment reading and writing assignments. The reading assignments will include the interpretation of extensive primary source material. Students are accepted based upon academic achievement in the ninth year Global Studies course and departmental approval. As an honors class, students will be required to read additional and more challenging material. An added requirement of this class is that students will read one historical work (non-fiction or fiction) during the school year.

Exams: Department Midterm in January and Regents Exam in June

#2324 Global Studies 10:

The objective of this course is to prepare students for the Global Studies Regents exam administered at the end of the sophomore year. The Global 10 curriculum will present an overview of global events from the *Enlightenment to the present day*. As in Global 9, students will be required to evaluate relevant documents and complete Regents’ style essay questions.

Exams: Department Midterm in January and Regents Exam in June

#2336 (Sophomores) or #3336 (Juniors) Foundations of Law & Political Science (H):

Prerequisites:
- 85% grade or above in their Global Studies course

This class is the introductory level class for Honors students who are entering Xaverian’s AP Law & Political Science Honors Program. Academy students with proven success in Social Studies & English as well as an interest in law may apply for this class through the Honors office. This class will discuss fundamental concepts of the American legal system which would include: the structure of the American court system, the role of lawyers in our legal system, basic concepts of criminal law, juvenile justice, tort law, consumer law, family law, environmental law, legal ethics, and core concepts of Constitutional law. After successfully completing this class, students will be allowed to continue in Xaverian’s law program and enroll in St. John’s American Government and Constitutional Law as well as other electives in this sequence.

Exams: Department Midterm in January and Final Exam in June

#3334 AP United States History:

Prerequisites:
- 88% grade or above in AP World History
- 90% grade or above in Global Studies H
- 92% grade or above in the Global Studies 10
- *Approval of Social Studies Department
The Advanced Placement Program (AP) offers a course and exam in AP United States History to qualified students who wish to complete studies in secondary school equivalent to an introductory college course in U.S. history. The AP U.S. History course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in U.S. history. The program will prepare students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students in this class will be required to complete a junior research paper commensurate with a Xaverian honors level Social Studies class.


The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

**Regents in June.**

#3337 United States History (H):

- 85% grade or above in AP World History
- 87% grade or above in Global Studies H
- 90% grade or above in the Global Studies 10

This course is taken after completion of Global Studies 10 (H). The course objective is to introduce the student to a well-organized presentation of the experiences and accomplishments of the American people, and to provide the basis for an objective and critical evaluation of the growth and development of the United States from colonial time to the present. This course will emphasize the integration and use of primary source documents. Students take the Regents exam in United States History and Government upon the completion of this course. The junior history research paper is a course requirement.

Exams: Department Midterm in January and the Regents Exam in June.

#3330 United States History:

This course is taken after completion of Global Studies 10. The course objective is to introduce the student to a well-organized presentation of the experiences and accomplishments of the American people, and to provide the basis for an objective and critical evaluation of the growth and development of the United States from colonial time to the present. This course will emphasize the integration and use of primary source documents. Students take the Regents exam in United States History and Government upon the completion of this course. The junior history research paper is a course requirement.

Exams: Department Midterm in January and the Regents Exam in June.

#3331 (Juniors) or #4330 (Seniors) Introduction to Psychology:

The object of education is to prepare the young to educate themselves throughout their lives (Robert M. Hutchins). This introductory course surveys the basic principles within the major perspectives in Psychology including the physiological psychology, learning, cognition, memory, development, personality and social psychology. There are three major objectives of the course requiring students;

- To understand the historical development of the perspective, its assumptions, research methodology, and the strengths and weaknesses of the perspective
To access, critically read and evaluate articles taken from Journals of Psychology and relevant scientific literature that lend themselves to a psychological study

To develop skills of analytical/expository writing within the discipline

To expose students to the transdisciplinary nature of psychology by connection their learning to literature, music, art, business and other subjects they are exposed to

Exams: Department Midterm in January and the Final Exam

#3338 Criminal Law:

In this second year course of Xaverian’s law program students will examine in detail the nature and causes of crime, study the legal requirements of major crimes, the impact of crime upon its victims, crimes of omission, computer crime, substance abuse crimes, and the criminal justice system. Students will discuss controversial issues that involve our criminal justice system. A key focus of the course will involve the application of legal concepts to case study situations.

Pre-requisites: Introduction to Law

#4340 St. John’s University American National Government (H):

Prerequisites:
- 85% in #3330 United States History
- 80% on the US History & Government Regents exam.
- 80% overall average
- A minimum combined Math and Verbal SAT score of 1080
- This is an approved elective course for students in any of the Honors Programs.
- This course is open to seniors only for St. John’s credit

This course will discuss the nature of United States federalism; the structure and work of the national government; the executive branch; the Congress and executive-legislative relationship; the federal judiciary with reference to appropriate constitutional cases.

Exams: Department Midterm in January and the Final Exam in May.

*Students successfully passing this course will be eligible to receive 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program. Successful students in this class will be allowed to take the Advanced Placement American Government Exam.

#4331 American Government and Economics:

This course will discuss the basic principles of American Government and Law with an emphasis upon citizen participation. The course will also present the basic principles of criminal law, consumer law, family law, housing law, and individual rights in our democratic society. Included in this course is an overview of economics which will present basic understanding of macroeconomics and microeconomics. Topics will include money and banking, financial institutions, the role of government, and current national and international economic problems.
#3343 (Juniors) #4343 (Seniors) Syracuse Psychology:

The Syracuse University Psychology course is an advanced college level course completed by junior and senior students in the Honors Program at Xaverian. The course aims to form the intellect, personality and character of students.

Prerequisite:

- 85% averages in Science, Math, and English

The academic goal of the course is to encourage an in-depth understanding of the perspectives, principles and research finding within major schools of psychology including neuropsychology, learning and memory, cognition and problem solving, development, abnormal psychology, and social psychology.

Course Objectives:

- Students will demonstrate an understanding of the theoretical perspectives, quantitative and qualitative research, and critical issues in psychology.
- Students will learn to access, critically read and evaluate journal articles.
- Students will learn to conduct and present psychological research using technology and statistical applications.
- Students will analyze psychological issues from a multicultural perspective. This objective will be met through formal instruction in class and informal discussions during Psychology Club: an extension of classroom learning which fosters an opportunity for critical thinking and peer sharing.
- Highly motivated students will be encouraged to engage in the completion of Advanced Placement Psychology Exam.

Exams: Department Midterm in January and the Project in May.

*Students successfully passing this course will be eligible to receive up to 3 college credits through Syracuse University. Students will be responsible for all additional fees charged by Syracuse as well as completing any required applications for acceptance to the Project Advance Program.

#4344 Advanced Constitutional Law:

Prerequisite:

- 85% grade or above in United States History
- *Approval of Social Studies Department

This course is designed to enable students to think as informed citizens in reference to the most significant and enduring issues of the United States Constitution. It will focus on noteworthy cases of American Constitutional Law with a spotlight on civil liberties, criminal law, and first amendment rights. Students taking this class will be required to read and examine excerpts from Supreme Court decisions.

Exams: Department Midterm in January and the Final Exam in May.
#4338 Criminal Law:

In this second year course of Xaverian’s law program students will examine in detail the nature and causes of crime, study the legal requirements of major crimes, the impact of crime upon its victims, crimes of omission, computer crime, substance abuse crimes, and the criminal justice system. Students will discuss controversial issues that involve our criminal justice system. A key focus of the course will involve the application of legal concepts to case study situations.

**Pre-requisites:** Foundations of Law
OBJECTIVES:

1. To provide a cultural and academic setting conducive to the learning of a modern romance language that may become part of our students' experiences as New Yorkers and as Americans.

2. To provide opportunities for students to:
   - become familiarized with the cultural values of the people whose language they study, both in the city and elsewhere
   - participate in actual use of the language they study through a variety of activities, including electronic and internet resources
   - acquire enough proficiency in the target language to be able to use it in real life situations
   - become fluent in their chosen language when ability and motivation are present

Departmental objectives are implemented through a comprehensive language program that includes required and elective courses chosen from among the foundational, regular and advanced offerings. Learning is enhanced by student participation in activities channeled by the Spanish and Italian clubs. For students who take the more demanding courses, the opportunity to gain college credit is provided through Syracuse University Italian and Syracuse University Spanish.

#1422 Spanish 9    #1428 Italian 9

These courses in language aim to develop higher cognitive thinking skills that will enable students to understand, speak, read, and write in the target language within the appropriate cultural framework. Student-centered activities including conversational situations, reading and writing in authentic contexts, computerized instruction and audio-visual materials all facilitate the necessary interaction leading to some measure of language proficiency. Students receive instruction in the construction of well-organized paragraphs of at least fifty words using the target language. At the end of the course, students will be able to converse and write with some ease of expression about familiar topics in the NYS curriculum, have knowledge of grammatical foundations of the language under study, and have exposure to an overall cultural view of the countries where the target language is spoken. A final midterm exam will be given in January and a final exam at the end of the year.

#1420 Spanish 9 (H)             #1426 Italian 9 (H)

These honors courses aim to develop the advanced skills within an advanced range that will enable students to understand, speak, read, and write in the target language within the appropriate cultural framework. Student-centered activities including conversational situations, reading and writing in authentic contexts, computerized instruction and audio-visual materials all facilitate the necessary interaction leading to an above average measure of language proficiency. Students receive instruction in the construction of well-organized paragraphs of at least eighty words using the target language. At the end of the course, students will be able to converse and write with ease about familiar topics listed in the NYS curriculum, have knowledge of grammatical foundations of the language under study, and have
some notions about the culture of the target language countries. A final midterm exam will be given in January and a final exam at the end of the year.

**#2424 Spanish 10  #2426 Italian 10**

This level stresses the improvement of the productive skills (speaking and writing) as well as the learning of more complex grammatical structures and expressions, combined with further study of the target language culture. Real life activities, including the reading of periodicals and the completion of audio-video projects are an integral part of the course. The writing requirement is expanded to well-organized paragraphs with a minimum of 100 words using the target language. A final midterm exam will be given in January and a final exam at the end of the year.

**#2420 Spanish 10 (H)  #2422 Italian 10 (H)**

The aims of the level 9 courses are continued at a more advanced level in honors courses, which are conducted mostly in the target language. Stress is on developing aural, oral and writing skills, as well as general fluency in speech. Students’ conversational abilities are enhanced through the learning of idiomatic expressions typical of native speakers. The writing requirement is expanded to well-organized paragraphs with a minimum of 110 words using the target language. Reading is intensified through the study of several representative works by distinguished authors. More complete grammatical constructions are presented. An ongoing cultural survey introduces the student to the history, geography, literature and culture of the countries where the language is spoken. A final midterm exam will be given in January and a final exam at the end of the year.

**#3432 Spanish 11  #3434 Italian 11  #4441 Spanish III**

The upper level focuses on the study and practice of all elements necessary to achieve a degree of proficiency that allows students to interact successfully with native speakers in everyday situations. This is complemented with representative reading selections in the target language that will contribute to a deeper cultural understanding. The writing requirement is expanded to well-organized compositions with a minimum of 150 words using the target language. A midterm exam is given in January and the NYS Regents Comprehensive examination equivalent, which counts as part of the final examination, is administered upon completion of the course.

**#3455 Advanced Spanish 11 (H)  #3456 Advanced Italian 11 (H)**

This course reviews more intensely the basic skills in communication through a progressive use of the four language skills, listening, speaking, reading and writing. Students will continue to develop proficiency in the target language through more extensive training in the expression and fluency in both the written and spoken forms of the language. A midterm exam is given in January and the NYS Regents Comprehensive examination equivalent, which counts as part of the final examination, is administered upon completion of the course.

**#4430 Syracuse University Italian 12 (H):**

**Prerequisites:**

- 85% or above in Italian Honors classes or 90% or above in Academy classes
• Language teacher recommendation
• This is an approved elective course for students in any of the Honors Programs.
• This course is open to seniors only for Syracuse credit.

Syllabus: This is a course designed to further develop, strengthen and refine the skills of students who have achieved proficiency in the language. The course offers students a full review of Italian grammar together with the development of speaking and writing skills, and a consistent exposure to Italian language and culture. To achieve these goals, students engage in interactive oral activities, write weekly compositions, read and discuss a variety of authentic texts that include current events, cultural life, and literary selections. In addition, students watch films, documentaries, and footage from Italian television which they will write about and discuss. Grading in the course is based on the quality of work in these activities throughout the course as well as oral and written examinations.

*Students successfully passing this course will be eligible to receive up to 4 college credits through Syracuse University. Students will be responsible for all additional fees charged by Syracuse as well as completing any required applications for acceptance to the Project Advance Program.

# 4433 Syracuse University Spanish 12 (H)

Prerequisites:
• 85% or above in Spanish Honors classes or 90% or above in Academy classes
• Language teacher recommendation
• This is an approved elective course for students in any of the Honors Programs.
• This course is open to seniors only for Syracuse credit

Syllabus: This is a course designed to further develop, strengthen and refine the skills of students who have achieved proficiency in the language. The course offers students a full review of Spanish grammar together with the development of speaking and writing skills, and a consistent exposure to Spanish language and culture. To achieve these goals, students engage in interactive oral activities, write weekly compositions, read and discuss a variety of authentic texts that include current events, cultural life, and literary selections. In addition, students watch films, documentaries, and footage from Spanish television which they will write about and discuss. Grading in the course is based on the quality of work in these activities throughout the course as well as oral and written examinations.

*Students successfully passing this course will be eligible to receive up to 4 college credits through Syracuse University. Students will be responsible for all additional fees charged by Syracuse as well as completing any required applications for acceptance to the Project Advance Program.
MATHEMATICS DEPARTMENT

All Regents courses will follow the NYS Regents curriculum which can be viewed on Regentsprep.org and will deal with the following areas of study: Mathematical Reasoning, Numbers and Numeration, Operations, Modeling and Multiple Representations, Measurement, Uncertainty, and Patterns and Functions. Students who fail the Common Core Algebra Regents during the year will be required to attend a Regents review class in Summer School and retake the Regents exam in August.

#1513 Geometry 9:

Prerequisite: Successful completion of Common Core Algebra course and a passing grade on the Common Core Regents Exam.

Students will follow the NYS Regents curriculum based on Euclidean and coordinate geometry. There will be some emphasis on proofs.
Exam: Geometry Regents in June.

#1512 Geometry 9 (H):

Prerequisite:
- 85 or higher on the Common Core Algebra Regents from 8th grade and a 90 average in the course.

Students will follow the NYS Regents Curriculum based on Euclidean and coordinate geometry. There will be a strong emphasis placed on proofs. Students will be exposed to geometry topics see in pre-calculus and calculus Exam: Geometry Regents in June.

#1521 Algebra 1 (H):

Prerequisite: Selection by the school.

Students will follow Common Core Regents curriculum. Students will also be exposed to advanced algebra concepts. Heavy emphasis will be placed on modeling and solving functions.
Exam: Common Core Algebra Regents in June.

#1527 Algebra 1:

Syllabus: NYS Common Core Algebra curriculum. Students will demonstrate the ability to graph and solve linear equations. They master basic algebraic techniques and demonstrate skill with a graphing calculator.
Exam: Common Core Algebra Regents in June.

#2520 Algebra II Trig 10 (H):

Prerequisite: Successful completion of “1512 Geometry 9 Honors” and a qualifying score on Geometry Regents Exam. Syllabus: Algebraic fractions, inequalities, sequences and their limits, functions and their
limits, derivatives and anti-derivatives, tangent slopes and region areas, properties and graphs of polynomial, exponential, logarithmic, circular, and inverse circular functions, verbal max-min problems including motion in one dimension, math induction, series and their sums, the definite integral as the limit of an approximate sum, vectors in two and three dimensions, complex numbers in standard and trig form, polar graphs, and the conic sections. Students will demonstrate proficiency with limits and trigonometric concepts, as well as an understanding of derivatives and integrals.

Exam: Algebra II/Trig Regents in June.

#2533 Geometry 10 (H):

Prerequisite:

• 85% or higher on the Algebra Regents.

Students will follow the NYS Regents Curriculum based on Euclidean and coordinate geometry. There will be a strong emphasis placed on proofs. Students will be exposed to geometry topics see in pre-calculus and calculus.

Exam: Geometry Regents in June.

#2527 Geometry 10:

Prerequisite: Successful completion of 1527 Integrated Algebra 9 course.

Students will follow the NYS Regents curriculum based on Euclidean and coordinate geometry. There will be some emphasis on proofs.

Exam: Geometry Regents in June.

#3527 Adv. Alg/Trig + Pre-Cal (H):

Prerequisite:

• 90% or higher average in #2533
• minimum score of 80% on the Geometry Regents
• Approval of the Math Department and/or the instructor is required for this course.

Topics include: Algebraic fractions, inequalities, sequences, functions, limits, vectors, matrices, and trigonometric functions, statistics, integral and differential calculus. Students will recognize and graph various functions and utilize them to solve problems like compound interest and radioactive decay.

Exam: Algebra II/Trig Regents Examination in June

#3529 Advanced Algebra II/Trig 11 (H):

Prerequisite:

• 80% on Geometry regents
• Approval of the Math Department and/or the instructor is required for this course.
The aims of the course are to appreciate the international dimensions of mathematics and the multiplicity of its cultural and historical perspective, foster enjoyment from engaging in mathematical pursuits, and to develop an appreciation of the beauty, power and usefulness of mathematics, develop logical, critical, and creative thinking in mathematics, develop mathematical knowledge, concepts and principles, employ and refine the powers of abstraction and generalization, develop patience and persistence in problem-solving, have an enhanced awareness of, and utilize the potential of, technological developments in a variety of mathematical contexts, communicate mathematically, both clearly and confidently, in a variety of contexts. Exam: Algebra II Regents in June.

#3535 Algebra II/Trig:

Prerequisite: Completion of Geometry.

Syllabus: This course covers the New York State Algebra II/Trig curriculum. Students will demonstrate the ability to use trigonometric relationships to solve real world problems and will demonstrate skill in the use of the graphing calculator. In consultation with the classroom teacher, select students will be invited to take the Regents Exam in June based upon overall class performance.

Exam: Midterm Exam in January and Final Exam or AlgebraII/Trig Regents Exam in June

# 3541 St. John’s Pre-Cal (H):

St. John’s University College Advantage Program*

Prerequisites:

- Approval of the Math Department and/or the instructor and successful completion of either course # 3525, #3527 or #3529 or instructor’s approval.
- A minimum combined Math and Verbal SAT score of 1080
- This is an approved elective course for students in any of the Honors Programs.
- This course is open to juniors or seniors for St. John’s credit

Review of elementary algebra, functions & graphs, sets of linear equations, introduction to exponential & logarithmic functions, and trigonometry.

Exam: Departmental Exam.

*Students successfully passing this course will be eligible to receive up to 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.
Advanced Placement Math Prerequisites:

Prerequisite:

- 90% in #3525 or #3527
- Approval of the Math Department and/or the instructor

The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

This course is intended for students who have a thorough knowledge of analytic geometry and elementary functions in addition to college preparatory algebra, geometry and trigonometry. Students will demonstrate mastery of all real world problems with derivatives, integrals, and probability. Students will build upon their mastery of Precalculus as they encounter the applications of:

- Limits
- Derivatives
- Integrals
- Parametric, vector, and polar functions
- Polar curves and coordinates
- Integrals
- Partial fraction decomposition
- Logistic functions
- Sequences and series

The course will be tested by the completion of the AP Calculus AB or BC exam in May of senior year. Note: this class will meet for additional lab periods

Exam: AB or BC Advanced Placement Exam (May).

#4543 AP Calculus AB:

AP Calculus AB is roughly equivalent to a first semester college calculus course devoted to topics in differential and integral calculus. The AP course covers topics in these areas, including concepts and skills of limits, derivatives, definite integrals, and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

#4544 AP Calculus BC:

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topic of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the Fundamental Theorem of Calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.
St. John’s University – University Calculus I:

- Approval of the Math Department and/or the instructor and successful completion of course #3525 or #3527 and instructor’s approval.
- A minimum combined Math and Verbal SAT score of 1080.
- This is an approved elective course for students in any of the Honors Programs.
- This course is open to juniors or seniors for St. John’s credit.

This course covers critical analysis of the theories and foundations of calculus. Topics include the basic concepts and applications of limits and functions, differentiation and integration.

Exam: Departmental Exam.

*Students successfully passing this course will be eligible to receive up to 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.

St. John’s Pre-Cal (H):

St. John’s University College Advantage Program*

Prerequisites:

- Approval of the Math Department and/or the instructor and successful completion of either course # 3525, #3527 or #3529 or instructor’s approval.
- A minimum combined Math and Verbal SAT score of 1080
- This is an approved elective course for students in any of the Honors Programs.
- This course is open to juniors or seniors for St. John’s credit

Review of elementary algebra, functions & graphs, sets of linear equations, introduction to exponential & logarithmic functions, and trigonometry.

Exam: Departmental Exam.

*Students successfully passing this course will be eligible to receive up to 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.

St. John’s Probability & Statistics (H):

St. John’s University College Advantage Program*

Prerequisite:

- 85% in course # 3529 or 80% in course #3527 and a qualifying SAT Math score
- 90% in course # 3535 and a qualifying SAT Math score
- Math teacher recommendation
• A minimum combined Math and Verbal SAT score of 1080
• This is an approved elective course for students in any of the Honors Programs.
• This course is open only for seniors only for St. John’s credit

Basic probability laws and their application; combinatorial analysis; conditional probability and Bayes’ rule; discrete and continuous distributions. Central limit theorem; statistical inference; sampling theory; estimation; hypothesis testing; goodness of fit; regression; correlation; analysis of variance. This course will provide a working knowledge of probability as a foundation for the statistical concepts covered in the course. The course will provide familiarity with concepts in statistical inference for application to technical, business, and social science problems and for further study of the methods of quantitative analysis. Exam: Departmental Exam.

*Students successfully passing this course will be eligible to receive up to 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.

#4530 Pre-calculus:

Prerequisite:

• Successful completion of Algebra II/Trig course # 3535.

Inequalities, arithmetic and geometric sequences and series, sequences and their limits, functions and their limits, derivatives and tangent slopes, properties and graphs of polynomial, exponential, logarithmic, circular, and inverse circular function, simple max-min problems, mathematical induction, vectors in two dimensions, complex numbers in standard and trig form, polar graphs, and conic sections. Algebraic fractions, matrices, and systems of linear equations will also be covered. Students will demonstrate proficiency with limits and trigonometric concepts, as well as a familiarity with derivatives and integrals. Exam: Departmental Exam.

#4532 College Prep Algebra:

Prerequisite:

• Pass Algebra II/Trig Course #3535
• Need approval of instructor

This course is designed for students who wish to review the basic principles of algebra and trigonometry and study additional topics. Students qualifying for Senior Pre Cal or Cal should not register for this course. Essentials from algebra and geometry will be reviewed and some time will be spent in preparation for the SAT. Topics will include Trigonometry, Logarithms, arithmetic and geometric progressions, synthetic division (used in the solution of higher degree equations), determinants (used in solving simultaneous equations in three unknowns), the graphing of Linear and quadratic inequalities and some basic calculus with application to maximum and minimum problems. Students will demonstrate a mastery of algebraic techniques and trigonometric concepts. Exam: Departmental Exam.
The primary objective of the Science Department is to provide each Xaverian student with a strong foundation in science and tools to develop adequate critical thinking skills.

#1622 Living Environment (II):

This course is offered by invitation to selected freshmen. The curriculum for this course is an accelerated version of the Living Environment Regents course (1624). This course will include an in-depth study of the various topics in living environment. In addition, there are enriched reading and writing assignments. Upon the completion of this course, the NYS Living Environment exam is administered as required by the NYS Board of Regents.

Exam: Midterm Exam in January and Living Environment Regents in June.

#1624 Living Environment:

This course follows the NYS curriculum in the study of living environment. Emphasis is given to Biochemistry, Cytology, Comparative Animal Anatomy and Physiology, Plant Morphology, Modern Genetics, Evolution, Ecology as well as the Scientific Method/Experimental Design. Regents examination is taken in June of the 9th grade. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the living environment and recognize the historical development of ideas in science. Upon the completion of this course, the NYS Living Environment exam is administered as a diploma requirement. This course includes a lab component where students will conduct hands-on experiments three times each cycle. The lab component is mandatory for completion of this course, as established by NYS Board of Regents.

Exam: Midterm Exam in January and Living Environment Regents in June.

# 1623 Chemistry 9 (II)

**Prerequisite:**

- 85 or higher on the Living Environment Regents and a 90 average in the course.

This course is an introductory Chemistry course that provides the student with an excellent foundation for future courses of a related nature. The subject matter of the course is that of the New York State Regents Syllabus, and includes atomic structure, bonding, acid base theory, radioactivity, quantum chemistry, inorganic and organic chemistry. Principles, laws and concepts are studied and experimentation and problem solving are used to verify them. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of chemistry and recognize the historical development of ideas in science.

Exam: Midterm Exam in January and Chemistry Regents Exam in June
#2622 Chemistry (H):

**Prerequisite:**

- 85% or better in Living Environment (1622/24)
- score an 80% or higher on the Living Environment Regents exam

The curriculum for this course is an in-depth coverage of the Regents Chemistry topics. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of chemistry and recognize the historical development of ideas in science.

Exam: Midterm Exam in January and Chemistry Regents in June

#2625 Chemistry:

**Prerequisite:** A qualifying grade on the Living Environment Regents Exam and in the Integrated Algebra course is required.

This course is an introductory Chemistry course that provides the student with an excellent foundation for future courses of a related nature. The subject matter of the course is that of the New York State Regents Syllabus, and includes atomic structure, bonding, acid base theory, radioactivity, quantum chemistry, inorganic and organic chemistry. Principles, laws and concepts are studied and experimentation and problem solving are used to verify them. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of chemistry and recognize the historical development of ideas in science. In consultation with the classroom teacher, select students will be invited to take the Regents Exam in June based upon overall class performance.

Exam: Midterm Exam in January and Final Exam or Chemistry Regents Exam in June

#3641 Advanced Placement Physics 1 (H)

**Prerequisite:** This course is open to full Honors Program students who:

- earn a grade of 90% or better in #2622 (Chemistry 10 H) or #2623 AP Chemistry
- 85% on the Geometry Regents exam
- Students enrolled in #2624 Chemistry need approval by their Chemistry teacher

This one year course focuses on the NYS Regent’s curriculum, which will be covered at an advanced level, and also the College Board Advanced Placement curriculum. Upon successful completion of this course, students will be eligible to enroll in the Advanced Placement Physics 2 course in their senior year. Students will explore principles of Newtonian mechanics (including rotational motion); work, energy, and power; mechanical waves and sound; and introductory, simple circuits. During the course, a strong emphasis is placed on lab work which students will develop experimental and investigative skills. Students will also develop a sense of the limitations of the experimental sciences.
Exam: Midterm Exam in January and Advanced Placement Physics 1 Exam in May

Regents Exam in June

#3624 Physics (H):

Prerequisite:

- 85% average in Chemistry and in Math.
- Qualifying regents score

The following topics will be covered in this physics course: kinematics, mechanics, optics, light, electricity, magnetism, and modern physics. The objectives of this course extend to an appreciation of the methods of science, the habit of critical thinking, and the ability to carefully examine experimental evidence. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of physics and recognize the historical development of ideas in science. The required NYS lab component is included in this curriculum.

Exam: Midterm Exam in January and Final Exam or Regents exam in June.

#3625 Physics:

Prerequisite:

- Completion of Chemistry 2622 or 2624
- Syllabus: New York State Regents Syllabus which requires the following topics: kinematics, mechanics, optics, light, electricity, magnetism, and modern physics. The objectives of this course extend to an appreciation of the methods of science, the habit of critical thinking, and the ability to carefully examine experimental evidence. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of physics and recognize the historical development of ideas in science. The required NYS lab component is included in this curriculum. In consultation with the classroom teacher, select students will be invited to take the Regents Exam in June based upon overall class performance.

Exam: Midterm Exam in January and Final Exam or Regents exam in June.

#4633 AP Chemistry 12:

This is a one year course designed to be the equivalent of the general chemistry course usually taken during the first college year. Students are expected to attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The major topics fall into the categories of structures of matter, states of matter, reactions, descriptive chemistry and laboratory procedures. Students must participate in a laboratory program involving experimental observations and data analysis. The
requirements for this course is 85% in chemistry, passing the chemistry regent exam, and 85% in the student’s current math course.

Exam: Midterm Exam in January and AP Chemistry exam in May.

Prerequisites:

- 85% average in Chemistry 9/10 (H) course as well as 85% on Chemistry Regents Exam
- Students enrolled in this course must already have completed a year of Chemistry
- The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.
- This is an approved elective course for students in any of the Honors Programs.

#3645 (Juniors) #4635 (Seniors) St. John’s Human Biology / Anatomy & Physiology (H):

St. John’s University College Advantage Program*

Prerequisites:

- A minimum of 85% and 80% in the Living Environment and Chemistry courses respectively, with passing grades on both Regents exams.
- Enrollment in this course requires the approval of the Assistant Principal for Academics, the Dean of Students, the Curriculum Specialist of Science, or the current Anatomy and Physiology instructor.
- A minimum combined Math and Verbal SAT score of 1080
- This is an approved elective course for students in any of the Honors Programs.
- This course is open to seniors only for St. John’s credit
- In addition to the lecture periods, lab periods will also be held within the 9 day cycle

This is a college-elective 3 credit course geared toward the student who hopes to pursue a career in the biological sciences. The topics include an in-depth study of human body systems, concluding with the molecular and clinical mechanisms of HIV and AIDS. Laboratory activities include a detailed study of tissues, the mammalian heart, skull and skeletal models, and organ systems of the albino rat and domestic cat. Students are required to present current research on medical advances using PowerPoint in a seminar forum. Adhering to the lab schedule and textbook assignment deadlines is essential for success in this rigorous course.

*Students successfully passing this course will be eligible to receive up to 3 college credits through St. John’s University. Students will be responsible for all additional fees charged by St. John’s as well as completing any required applications for acceptance to the College Advantage Program.

Exam: Midterm Exam in January and Departmental Final Exam.

#4640 Advanced Placement Physics 2 (H)
**Prerequisite:** Completion of the Advanced Placement Physics 1 course and approval from course instructor

This college-level elective is open to seniors in the Honors Program. The main objective of the course is to introduce students to the key principles of Physics in the topics of fluids, thermodynamics, electricity, magnetism, optics, and topics in modern physics. The emphasis is on the development of conceptual understanding and problem-solving ability using algebra and trigonometry. This is a one-year course including a laboratory component. It provides a foundation in physics for students in the life sciences, pre-medicine, and various applied sciences, as well as other fields not directly related to science.

Exam: Midterm Exam in January and Advanced Placement Physics 2 exam in May

- The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

**#4641 AP Biology:**

This college-level elective is open to qualifying Honors or Academy Seniors who have successfully completed the Living Environment and Chemistry courses. The three main objectives of the course are to help students develop (1) a conceptual framework for modern biology, (2) analytical skills to deal critically with the rapidly changing science of biology, and (3) an appreciation of science as a process. The ongoing knowledge explosion in biology makes these objectives even more challenging.

The AP Biology Exam, taken in May, seeks to be representative of the topics covered by the syllabus. Accordingly, goals have been set for percentage coverage of three general areas:

I. Molecules and Cells, 25%
II. Heredity and Evolution, 25%
III. Organisms and Populations, 50%

**Prerequisites:**

- Minimal final grade of 85% in Living Environment and Chemistry
- Minimal grade of 85% on the Living Environment Regents exam
- Passing grade on the Chemistry Regents exam
- Approval by the course instructor

The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

Exam: Midterm Exam in January and Departmental Final Exam.
#3648 (Juniors) #4648 (Seniors): Marine Biology

The Marine Science course is offered as an elective to senior students. Emphasis is given to marine geology, plate tectonics, classification of marine organisms, characteristics and adaptations, physical and chemical properties of seawater, factors that affect waves, tides, and currents, principles of marine ecology, and human interaction on the marine environment.

- Throughout the year students will delve into these topics with a particular focus being given to our immediate surrounding body of water here in the Narrows and as they apply to the mid-Atlantic and our global oceans.
- Students will also apply the principles of living environment and chemistry to the marine setting. In doing so, students will be classifying marine organisms according to phylogenetic groups.
- They’ll be examining the ecology of the marine ecosystem, and students will be able to explain which specific characteristics allow these organisms to survive in even some of the most extreme environmental conditions.
- Students will develop a complete understanding of marine and freshwater food webs; from energy producing green algae to top predatory fish and mammals like sharks and whales.

In addition to digital media resources from the Oceanography iBook, students will partake in various hands on activities identifying major structures on various bony finned fishes. Students will examine internal anatomy of fishes, mollusks and aquatic invertebrates through dissection labs. These hands on experiments will be implemented within the course as well as offsite including field trips to local beaches, estuaries and aquariums. The course will include a specific midterm and final exam upon completion.

#4650 Bioethics:

This course will explore fundamental ethical issues that arise in medicine, health, and biotechnology through critical thinking, writing, and discussion. Some topics that will be explored are reproductive technology, euthanasia, vaccinations, organ donation, and cloning to name a few. Students will investigate the science that makes these procedures possible and then debate whether the practice is ethical. Arguments will be examined through different lenses based on religion and culture. In this course, students will also enhance their science literacy through research and present their findings in various manners.

Exam: Midterm Exam in January and Final Exam
BUSINESS & COMPUTER SCIENCE DEPARTMENT

Business Objectives:

(A) To expose students to various areas within a business curriculum

(B) To enable students to develop skills in communication for college and business

Computer Science Objectives:

(A) To develop basic computer literacy in all students

(B) To teach a structured programming approach to the solution of problems

(C) To provide gifted students with advanced courses

#2725 (Sophomore) and #3725 (Juniors) Business Organizations & Society (H):

This class is the introductory level class for students who are entering Xaverian’s Business & Economics Pathway. Business Organizations and Society is a one-year course which includes a critical study of the ways in which individuals and groups interact in a dynamic business environment. This course is designed to give students an understanding of business principles, practices, and skills. Emphasis is placed on understanding technical innovation and day-to-day business functions of marketing, human resource management, and finance. Students are expected to demonstrate knowledge and understanding of business terminology, concepts and principles, identify social and cultural factors and ethical considerations in the actions of organizations, assess the impact of the actions of organizations on internal and external environments.

# 3737 (Juniors) # 4737 (Seniors) AP Microeconomics:

Enrollment: Juniors and Seniors

This course is the second year of the sequence began in course #2725 and #3725 above. Students will be given a thorough understanding of the principles of economics that apply to the functions of individual decision makers, both consumers and producers, within the economic system. It places primary emphasis on the nature and functions of product markets, and includes the study of factor markets and of the role of government in promoting greater efficiency and equity in the economy. Each student is expected to sit for the AP Microeconomics test at the end of the year.

- Successful completion of #2725 or #3725 with a minimum grade of 90% is required for this course.
- Students must also earn a grade of 90% or higher in Social Studies
The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

#3736 (Juniors) #4736 (Seniors) Syracuse University: Introduction to Financial Accounting:

This course introduces the student to financial accounting concepts that aid entrepreneurs, managers, investors and creditors in planning, operating and analyzing a business. Emphasis in this course is on the interpretation of financial statements.

In addition to the use of a traditional textbook, lectures, quizzes and exams to deliver basic accounting skills, students are required to complete a comprehensive project that demonstrates their ability to analyze the financial statements of publicly traded companies and make an informed investment decision based on the analysis.

By the end of the course, students are expected to understand the basic accounting information system, have the ability to read and understand a set of basic financial statements, have awareness of the current issues in financial accounting and their impact on organizational stakeholders, and understand career opportunities available to accounting graduates.


#3735 (Juniors) #4735 (Seniors) Investing Fundamentals (H):

The course covers topics related to business financial planning. Areas included are banking, corporate financial management, securities markets, risk management and insurance, government interaction in the markets, and legal considerations. Specific companies will be analyzed in relation to each of these areas. All students must participate in the Youth Investment Council.

- This is an approved elective course for students in any of the Honors Programs.

#3732 (Juniors) #4732 (Seniors) Introduction to Accounting:

Enrollment: Juniors and Seniors

This course explores a basic and logical approach to the logic and techniques used in establishing a modern accounting system. Beginning with fundamental equation of assets, liabilities, and capital value, the student will learn to use the double-entry bookkeeping methods to record business transactions. The process will involve an introduction to and use of general ledger, general journal as well as the preparation of accounting worksheets - each a means by which the financial performance of a business organization is maintained and evaluated. Also included will be the study and preparation of basic financial statements, the income statement and the balance sheet. Application of basic techniques will enable the student to develop the trial balance and close the ledger accounts of a typical business. These techniques will be applied to both a trading and service business with the appropriate modifications as they are required in the application of the accounting system. Computer simulations will be used throughout the course to expose students to modern techniques in the field.
#3734 (Juniors) 4734 (Seniors) Computer Science Principles

Computer Science Principles introduced during the Sophomore year encourages students to work in teams to develop computational thinking and problem solving. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The aim of this course is to build students’ awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. It engages students to consider issues raised by the present and future societal impact of computing. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.
Studio Art

This is a general survey course, in which students will create a collection of artworks that reflect an understanding of the elements and principles of art and design. It is designed to introduce students to the role of art in history, to teach them the language of art criticism and to provide them with the tools to think visually, conceptually and critically. This course will not only satisfy the NYS requirement for graduation but it will also serve as a prerequisite for all students intending to take other art electives.

Studio Art is a pre-requisite for all Art courses in Junior year

Foundations of Drawing and Painting

First Semester Course: Foundations in Drawing and Seeing
Students will practice traditional drawing exercises with the intention to developing skills for drawing still life, figure drawing, linear perspective and tonal shading. Additionally, students will explore basic theories on composition.

Second Semester Course: Foundations in Painting
Student will develop fundamental skills in principles of drawing, the relationship of drawing to painting, underpainting techniques, value and color, light, shade and shadow, palette organization, and modeling techniques.

Introduction to Digital Art

This course will introduce students to the field of Graphic Design as well as creating digital video. Applying the Elements of Art and Principles of Design, students interested in this course will learn the basic tools and techniques for creating and manipulating images and transforming ideas into artwork. Emphasis will be placed on The Adobe Suite (Illustrator/Photoshop/InDesign, and iMovie), with basic understanding of photography, composition, and media literacy. Students will conceive of and create digital works of art, manipulate pre-existing images, and develop critical thinking skills. The computer acts as a tool to create artwork from common sources, as well as from the imagination. Work will be printed and critiqued.

-This is an approved elective course for students in any of the Honors Programs.

Introduction to Architecture

This course is designed to introduce students to the ideas, principles, and methods of solving architectural problems in a studio setting. Students of this course will comprehend the many facets of architecture: reading and understanding architectural drawings, developing drafting skills through freehand and mechanical drawing, utilizing hands-on architecture tools, critiquing historical and current architectural structures, and conceptual development of ideas. Emphasis will be placed on Urban Development as well as Green Architecture.
Students of this course should be expected to purchase a Textbook as well as an Architectural Kit, including an architecture board, T-square, triangle, architecture and engineer scales, etc.

#4852 Advanced Art
This course provides students with the opportunity to further develop their drawing skills using traditional drawing practices which find their origins in 19th Century France. Students will practice techniques to develop their abilities to draw objects with accurate proportions as well as perceive and incorporate values into their drawings. In addition, the course will introduce students to oil painting, presenting them with traditional practices which will enable them to develop an approach to oil painting that has been used by artists for centuries. Students taking this course will be expected to purchase paints and tools needed for oil painting. A supply list will be sent out during the summer before the school year begins.

Prerequisite: Students must have completed the Studio Art course and must seek approval from the Art Department Curriculum Specialist.
MUSIC DEPARTMENT

Music Courses

Bands, Orchestras, Chorus, Jazz Bands, Guitar Ensembles, Drum Line, Rock Band and Harp - Technique & Execution

These are full year programs open to students in each grade level who wish to begin or continue their study of a musical instrument, instruments or voice. Students receive both practical instruction in playing a musical instrument as well as musical theory. This is a full credit program offered on each grade level.

# 3853 Music Theory and Composition (H):

This course will concentrate on laying foundations in music theory, history, score reading, and aural skills. Class work will include learning the fundamental of score analysis, listening comprehension and ability to discuss musical works, and basic music theory. Successful completion of this course will make a student eligible to take AP Music Theory the following year.

• This is an approved elective course for students in any of the Honors Programs.

• Approval of the Music Department is a prerequisite for this course.

# 4853 AP Music Theory:

The ultimate goal of an AP Music Theory course is to develop a student’s ability to recognize, understand, and describe the basic materials and processes of music as both a performer and listener. The curriculum to achieve these goals will involve understanding the fundamentals of aural, analytical, and compositional skills using both listening, written, and/or performance exercises. The prerequisites for this class are the junior year Music Theory class and/or approval of the Music Department.

• The College Board charges testing fees for all AP exams. These fees will be added to Xaverian tuition bills.

• This is an approved elective course for students in any of the Honors Programs.

9th Year Program:

#1814 Chorus
Section A

#1815 Jazz Band
Section A or B

#1817 Band

10th Year Program:

#2814 Chorus
Section A

#2815 Jazz Band
Section A or B

#2817 Band
<table>
<thead>
<tr>
<th>Sections A, B or C</th>
<th>Sections A, B or C</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1844 Orchestra</td>
<td>#2844 Orchestra</td>
</tr>
<tr>
<td>Sections A, B or C</td>
<td>Sections A, B or C</td>
</tr>
<tr>
<td>#Guitar</td>
<td>#Guitar</td>
</tr>
<tr>
<td>Section A or B or C</td>
<td>Sections A or B or C</td>
</tr>
<tr>
<td>#Harp</td>
<td>#Harp</td>
</tr>
<tr>
<td>#Percussion Ensemble/Drum Line</td>
<td>#Percussion Ensemble/Drum Line</td>
</tr>
</tbody>
</table>

**11th Year Program**

<table>
<thead>
<tr>
<th>#3814 Chorus</th>
<th>#4817 Band</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section A</td>
<td>Section A, B or C</td>
</tr>
<tr>
<td>#3815 Jazz Band</td>
<td>#4821 Jazz Band</td>
</tr>
<tr>
<td>Section A or B</td>
<td>Section A or B</td>
</tr>
<tr>
<td>#3817 Band</td>
<td>#4822 Chorus</td>
</tr>
<tr>
<td>Section A, B or C</td>
<td>Section A</td>
</tr>
<tr>
<td>#3844 Orchestra</td>
<td>#4844 Orchestra</td>
</tr>
<tr>
<td>Section A, B or C</td>
<td>Section A, B or C</td>
</tr>
<tr>
<td>#Guitar</td>
<td>#Guitar</td>
</tr>
<tr>
<td>Section A or B or C</td>
<td>Section A or B or C</td>
</tr>
<tr>
<td>#Harp</td>
<td>#Harp</td>
</tr>
<tr>
<td>#Percussion Ensemble/Drum Line</td>
<td>#Percussion Ensemble/Drum Line</td>
</tr>
</tbody>
</table>

**12th Year Program**

All “A” sections are by audition or Music Office approval.
Participation in the Physical Education program is required of all students during the four year period of matriculation. The physical activities include not only the essential instructional program, but also the planned program of intramural and interscholastic activities.

The immediate objectives of the Physical Education program are to develop essential skills, coordination, strength, and endurance through active involvement in many competitive sports and recreational games having carry-over values for leisure time.

The overall goal of the program is to enrich the social, emotional, mental and physical development of students for a happier and more active life. Special emphasis is placed on presenting varied activities on a progressive basis which are in harmony with the needs and interests of the participants.

**#1920 Freshman Physical Education:**

The emphasis of the physical education program is on basic body movements, calisthenics, achievement testing, lead up games, sport fundamentals (basketball, volleyball, hockey, handball, zone football, flag football and whiffle ball).

**#2920 Sophomore Physical Education:**

A general conditioning program and a review of fundamental skills previously taught. Additional instruction of more advanced skills and team play are added within this program. Physical fitness testing relays and races are also included.

**#3920 Junior Physical Education**

**#4920 Senior Physical Education**

**#4922 Senior Physical Education (For Honors Program Students only)**

Conditioning activities, participation in seasonal sport programs, physical fitness testing, choice of activities in accord with the wishes, desires, and needs of the individual are the essentials of the year’s program.

**Health Education**

**#2640(Sophomores) #4644 (Seniors) Health**

This course is offered to sophomores in response to the individual’s and society’s concern with the problems of drug/alcohol abuse. Students are provided with factual information and engage in discussion regarding some of the personal, societal, health-related and legal aspects of this issue. In addition, significant attention is given to the basics of CPR.
RESEARCH PAPER REQUIREMENTS
Guidelines for the Completion of Primary Research Papers

STATEMENT OF INTENT: Educational research suggests that when instructors across the curriculum integrate writing efficiently, both student knowledge and writing in the discipline improve. The primary research papers serve to promote formal research writing on all four grade levels at Xaverian.

Conducting primary or secondary research for research papers or projects requires students to gather information from credible, critical sources. Xaverian offers its students access to reliable and expert databases (see below).

Each grade has been assigned a task that will lead to a final project on a primary level. For the current academic year, the primary research paper will be executed in the following disciplines and on the designated grade level:

<table>
<thead>
<tr>
<th>Academic Department</th>
<th>Freshman Year</th>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Year</td>
<td>English</td>
<td>Religion</td>
<td>Social Studies</td>
<td>English</td>
</tr>
</tbody>
</table>

The general guidelines for writing the research paper with all proper annotations including the standard system for the collection of relevant information, organizing and synthesizing this information into a draft format, the editing of the draft, and the production of a final product will be outlined by the teacher.

It is important that this process be standardized by starting with a clear statement, across disciplines, on those specific skills we expect our students to master by the time they graduate. These skills include the following:

- A process for collecting information using Xaverian’s digital library databases such as ProQuest/SIRS, EbscoHost, Questia, etc. Students will have access to usernames and passwords for such databases on “Xaverian’s Digital Library Databases” handout provided by the teacher.

- Students will be informed that they MUST use a variety of sources including a limited number of material gathered via the web, with some gathered from print material. Other alternative sources may be used if appropriate to the research topic (interviews, etc.).

- All papers need to adhere to proper Modern Language Association (MLA) format.
NB. The completed four-year primary research paper sequence is a requirement for graduation. Students will receive a final grade for their primary research paper, which will appear on a student’s transcript and will earn 1/4 units of credit each year for a total of 1 full unit in order to satisfy the graduation requirement.

A student who does not submit a research paper, fails to revise an unacceptable research paper, plagiarizes, or receives a failing grade (below 70%) for the research paper will be required to attend summer school that year.
The Academy at Xaverian High School

All Freshmen who are accepted into the Academy at Xaverian High School will become part of a unique and challenging educational experience designed to prepare young men for the academic rigors of higher education while at the same time developing in each person the mind, body and spirit. One of the primary objectives of the Academy is to foster in each student a genuine passion and love for learning that will enable him to reach beyond any self-imposed boundaries and discover the untapped potential which lies within. Administrators and faculty expect the following from each Academy student:

- A commitment to the pursuit of academic excellence.
- A commitment to respect the dignity and worth of every person.
- A commitment to discover God’s call to service.
College Partnerships

Syracuse University: Project Advance Program

St. John’s University: College Advantage Program

The Xaverian High School partnerships established with St. John’s and Syracuse Universities provide qualified students a concurrent enrollment in their high school and college credit-bearing courses for the University. This program is offered to qualified juniors and seniors during the academic year. Specific courses are offered in the areas of English, mathematics, language, science, theology and social studies.

- The program provides students with an opportunity to earn college credit while still in high school. This benefits high-achieving students to be further motivated and to get a “headstart” on college.
- It also provides reduced tuition costs to students and parents, and serves as an assessment of a student’s ability to do college level work.
- Students successfully passing these courses will be eligible to receive up to 4 college credits per course through Syracuse or St. John’s University.
- Students may enroll in up to 3 courses per academic year.
- Students will be responsible for all additional fees charged by the university as well as completing any required applications for acceptance.

***St. John’s Eligibility: Minimum 80% average (seniors) or an 85% average (juniors) in all academic subjects and a combined Math and Critical Reading SAT score of 1080 (or a qualifying PSAT score, or an ACT score of 21).

***Syracuse University Eligibility: See individual course descriptions for prerequisites.

<table>
<thead>
<tr>
<th>Syracuse University Courses</th>
<th>St. John’s University Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>#4343 Syracuse Univ. Psychology (H)</td>
<td>#4138 St. John’s – Perspectives on Christianity</td>
</tr>
<tr>
<td>#4430 Syracuse Univ. Italian 12 (H)</td>
<td>#4235 St. John’s English First Year Writing (H)</td>
</tr>
<tr>
<td>#4433 Syracuse Spanish 12 (H)</td>
<td>#4339 St. John’s American National Government (H)</td>
</tr>
<tr>
<td>#4736 Syracuse Univ. Acct.</td>
<td>#4523 St. John’s Pre-Cal (H)</td>
</tr>
<tr>
<td></td>
<td>#4536 St. John’s Calculus</td>
</tr>
<tr>
<td></td>
<td>#4533 St. John’s Probability &amp; Statistics (H)</td>
</tr>
<tr>
<td></td>
<td>#4635 St. John’s Anatomy &amp; Physiology</td>
</tr>
</tbody>
</table>

*** See departmental pages for specific requirements
The Michael T. Strianese ’74 STEM Program at Xaverian

# 5611 STEM 9

This is a required course for freshmen students in Xaverian. STEM 9 is designed to be a full-year course implemented in the 9th grade. This course is an excellent entry point for new high school computer science (CS) learners. All students who take CS Essentials will have many opportunities for creative expression and exploration in topics of personal interest, whether it be through app development, web design, or connecting computing with the physical world. CS Essentials introduces students to coding fundamentals through an approachable, block-based programming language where they will have early success in creating usable apps. As students sharpen their computational thinking skills, they will transition to programming environments that reinforce coding fundamentals by displaying block programming and text based programming side-by-side. Finally, students will learn the power of text-based programming as they are introduced to the Python® programming language.

Note: Student are required to maintain a minimum of 80% in each PLTW STEM course in order to remain in the program.

STEM Biomedical Sciences Program

The Project Lead the Way (PLTW) pathway to the Biomedical Science is constituted of a sequence of courses that follow a hands-on, real-world problem-solving approach to learning. Students learn and apply the design process, acquire strong teamwork and communication proficiency, and develop organizational, critical thinking, and problem solving skills. They gain proficiency in the study of human medicine, physiology, genetics, microbiology, medical ethics, and public health. By investigating the death of a fictional person and tracing disease inheritance within a fictional family, they gain an in-depth understanding of the process and need for screening, diagnosis, intervention, and medical ethics. Simulating real-world situations in research and medicine, they are supervised to design studies, engineer animated biological models, present projects and serve as peer evaluators.

Sophomore Year

#5622 Principles of Biomedical Science (PBS)

The Principles of Biomedical Science (PBS) course is an introduction to biomedical science through exciting hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They determine the cause of death of a fictional woman by piecing together evidence from her medical history and autopsy report. They investigate lifestyle choices and medical treatments that might have prolonged the woman’s life and demonstrate how the development of disease is related to changes in human body systems. The activities and projects including experimental design require students to utilize data
acquisition software to calculate energy trapped in food, measure blood pressure, and record an electrocardiogram. Students are introduced to human genetics, human physiology, basic biology, medicine, and research processes, and the key biological concepts, including maintenance of homeostasis in the body, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. This course is designed to provide an overview of all the courses in the biomedical science program and lays the scientific foundation for subsequent courses. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

**Junior Year**

### # 5632 Human Body Systems

In this course, students step inside the human body and explore the individual systems that help us move, protect us from disease or injury, and facilitate communication within the body and the outside world. Students investigate how each system functions as a part of the whole, establishing and emphasizing the role of homeostasis. The course provides students with an opportunity to build analytical and engineering skills. They design experiments and use data acquisition software to monitor respiratory function, muscle action, and reflex and voluntary behavior. Working collaboratively, students assess energy input and output to evaluate health, analyze blood types, and build organs and tissues on a skeletal Maniken. They engage in role play which allows them to assume the position of biomedical professionals solving real-world medical mysteries.

**Senior Year**

### #5643 Medical Intervention

In the Medical Interventions course students investigate a variety of interventions involved in the prevention, diagnosis and treatment of disease as they follow the lives of a fictitious family. The course explores how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose and treat cancer, and how to prevail when the organs of the body begin to fail. Through various scenarios students are exposed to a wide range of interventions related to Immunology, Surgery, Genetics, Pharmacology, Medical Devices, and Diagnostics. Each scenario introduces the student to multiple types of interventions and reinforces the concepts learned in the previous two courses, as well as present new content. Interventions range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions are showcased across the generations of the family and provide a look at the past, present and future of biomedical science. Lifestyle choices, medical ethics, and preventive measures are emphasized throughout the course as well as the important role scientific thinking and engineering design play in the development of interventions in the future. Students are encouraged to be innovative and work collaboratively in designing a research study, rehabilitation program or treatment module.
Computer Science Program

The Project Lead The Way (PLTW) pathway to Computer Science is constituted of a sequence of courses that follow a hands-on, real-world problem-solving approach to learning. Students delve into app development, web design, programming, ethical issues pertaining to use of internet and other social media. They understand the scope of role of computer programming in the fields of engineering, bioinformatics, medicine, and other allied health professions.

Sophomore Year

#5722 (sophomore) AP Computer Science Principles:

Computer Science Principles introduced during the Sophomore year encourages students to work in teams to develop computational thinking and problem solving. The course does not aim to teach mastery of a single programming language but aims instead to develop computational thinking, to generate excitement about the field of computing, and to introduce computational tools that foster creativity. The aim of this course is to build students’ awareness of the tremendous demand for computer specialists and for professionals in all fields who have computational skills. It engages students to consider issues raised by the present and future societal impact of computing. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Junior Year

#5723 (Junior) #5724 (Senior) Computer Science A:

Computer Science A (CSA) aligns with the College Board’s CS A framework. CSA builds on the basic skills learned in PLTW Computer Science Principles (CSP) to teach students Java and authentic AndroidTM app development. This course aims to fully develop Object Oriented Programming (OOP) skills that were introduced in CSP and will require consummate engagement with the material for success. Students in this course continue to hone their communication and collaboration skills while learning to use a variety of tools. The primary goal of the course is to create independent-thinking app developers: every unit in this course builds on the students' prior knowledge and skills strengthening their ability to complete an app development cycle independently from the ground up.

Engineering Program

The PLTW pathway to the Engineering program is a sequence of courses which follows a hands-on, real-world problem solving approach to learning. Students learn and apply the design process, acquire strong team work and communication proficiency, and develop organizational, critical thinking, and problem solving skills. They discover the answers to questions like: how are things made? and what processes go into creating products? Students use the same industry leading 3D design software used by companies like Intel and Lockheed Martin. They explore Strength of Materials and Structures, Automation and Kinematics, Statistical Analysis and Mathematical Modeling, Aerodynamics, Astronautics, and Space-life sciences.
**Sophomore Year**

**# 5621 Introduction to Engineering Design**

Introduction to Engineering Design (IED) taken by sophomores, is a high school level foundation course in the PLTW Engineering Program. In IED, students are introduced to the engineering profession and a common approach to the solution of engineering problems, an engineering design process. Utilizing the activity-project-problem-based (APB) teaching and learning pedagogy, students’ progress from completing structured activities to solving open-ended projects and problems that require them to develop skills in planning, documentation, and communication, as well as other professional skills. Through collaborative team activities, and projects, students learn to solve problems as they practice common engineering design and development protocols such as project management and peer review. They develop skills in technical representation and documentation of design solutions according to accepted technical standards, and use current 3D design and modeling software to represent and communicate solutions. In addition, the development of computational methods that are commonly used in engineering problem solving, including statistical analysis and mathematical modeling, are emphasized. Ethical issues related to professional practice and product development are also presented.

**Junior Year**

**# 5631 Principles of Engineering**

Principles of Engineering (POE), is a survey course which exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Through problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of materials and structures, automation, and kinematics. The course applies and concurrently develops secondary level knowledge and skills in mathematics, science, and technology. Students get the opportunity to develop skills and understanding of course concepts through activity-, project-, and problem-based (APB) learning. By solving rigorous and relevant design problems using engineering and science concepts within a collaborative learning environment, APB learning challenges students to continually hone their interpersonal skills, creative abilities, and problem solving skills. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. It also allows students to develop strategies to enable and direct their own learning - the ultimate goal of education.

**Senior Year**

**# 5641 Aerospace Engineering**

Aerospace Engineering ignites students’ learning in the fundamentals of atmospheric and space flight. Aerospace Engineering is one of the specialization courses in the PLTW Engineering
program. The course deepens the skills and knowledge of an engineering student within the context of atmospheric and space flight. Students explore the fundamentals of flight in air and space as they bring the concepts to life by designing and testing components related to flight such as an airfoil, propulsion system, and a rocket. They learn orbital mechanics concepts and apply these by creating models using industry-standard software. They also apply aerospace concepts to alternative applications such as a wind turbine and parachute. Students simulate a progression of operations to explore a planet, including creating a map of the terrain with a model satellite and using the map to execute a mission using an autonomous robot.

### STEM Engineering Program

#### Academy Students

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 or Religion 10 (H)</td>
<td>Religion 11 or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 or English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>English 12: College English, AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 or Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional : Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 or Geometry 10 (H) or Enriched Pre-calculus</td>
<td>Algebra 2/Trig, Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal</td>
<td>Pre-cal, SJU Precal, SJU Calc, SJU Stats, AP Calculus</td>
</tr>
<tr>
<td>Global 10, Global 10 (H) or AP World History 10</td>
<td>USH, USH (H) or AP USH</td>
<td>Almericn Government, SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 or Chemistry 10 (H)</td>
<td>Regents Physics, Physics (H) or AP Physics 1</td>
<td>Aerospace Engineering</td>
</tr>
<tr>
<td>Introduction to Engineering Design</td>
<td>Principles of Engineering</td>
<td>Aerospace Engineering</td>
</tr>
</tbody>
</table>

### STEM Engineering Program

#### Honors Program

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 (H)</td>
<td>Religion 11 (H) or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional : Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 (H) or Enriched Pre-calculus</td>
<td>Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal, AP Calc 11</td>
<td>SJU Precal, SJU Calc, SJU Stats or AP Calculus</td>
</tr>
<tr>
<td>Global 10 (H) or AP World History 10</td>
<td>USH (H) or AP USH</td>
<td>SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 (H) or AP Chemistry</td>
<td>Physics (H) or AP Physics 1</td>
<td>Aerospace Engineering</td>
</tr>
<tr>
<td>Introduction to Engineering Design</td>
<td>Principles of Engineering</td>
<td>Internship</td>
</tr>
</tbody>
</table>

54
### STEM Biomedical Sciences Program
#### Academy Students

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 or Religion 10 (H)</td>
<td>Religion 11 or Religion 11 (H) or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 or English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>English 12: College English, AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 or Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional : Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 or Geometry 10 (H) or Enriched Pre-calculus</td>
<td>Algebra 2/Trig, Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal</td>
<td>Pre-Cal, SJU Precal, SJU Calc, SJU Stats or AP Calculus</td>
</tr>
<tr>
<td>Global 10, Global 10 (H) or AP World History 10</td>
<td>USH, USH (H) or AP USH</td>
<td>American Government, SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 or Chemistry 10 (H)</td>
<td>Regents Physics, Physics (H) or AP Physics 1</td>
<td></td>
</tr>
<tr>
<td>Principles of Biomedical Science</td>
<td>Human Body Systems</td>
<td>Medical Interventions</td>
</tr>
</tbody>
</table>

### STEM Biomedical Sciences Program
#### Honors Program

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 (H)</td>
<td>Religion 11 (H) or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional : Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 (H)</td>
<td>Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal, AP Calc 11</td>
<td>SJU Precal, SJU Calc, SJU Stats or AP Calculus</td>
</tr>
<tr>
<td>Global 10 (H) or AP World History 10</td>
<td>USH (H) or AP USH</td>
<td>SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 (H) or AP Chemistry</td>
<td>Physics (H) or AP Physics 1</td>
<td>Honors Science</td>
</tr>
<tr>
<td>Principles of Biomedical Science</td>
<td>Human Body Systems</td>
<td>Medical Interventions</td>
</tr>
</tbody>
</table>

Internship
### STEM Computer Sciences Program

**Academy Students**

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 or Religion 10 (H)</td>
<td>Religion 11 or Religion 11 (H) or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 or English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>English 12: College English, AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 or Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional: Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 or Geometry 10 (H) or Enriched Pre-calculus</td>
<td>Algebra 2/Trig, Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal</td>
<td>Pre-Cal, SJU Precal, SJU Calc, SJU Stats or AP Calculus</td>
</tr>
<tr>
<td>Global 10, Global 10 (H) or AP World History 10</td>
<td>USH, USH (H) or AP USH</td>
<td>American Government, SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 or Chemistry 10 (H)</td>
<td>Regents Physics, Physics (H) or AP Physics 1</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>Computer Science A</td>
<td>Cyber Security</td>
</tr>
</tbody>
</table>

### STEM Computer Sciences Program

**Honors Program**

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion 10 (H)</td>
<td>Religion 11 (H) or Religion &amp; Philosophy 11 (H)</td>
<td>SJU Perspectives on Christianity Prophets and Peacemakers or SJU World Religions</td>
</tr>
<tr>
<td>English 10 (H)</td>
<td>English 11, English 11 (H), AP English Language</td>
<td>AP English Literature or SJU English Composition</td>
</tr>
<tr>
<td>Foreign Language 10 (H)</td>
<td>Foreign Language 11 or Foreign Language 11 (H)</td>
<td>Elective Optional: Syracuse Spanish 12 H or Syracuse Italian 12 H</td>
</tr>
<tr>
<td>Geometry 10 (H) or Enriched Pre-calculus</td>
<td>Adv. Alg 2/Trig (H) or Adv Alg2/Trig + Precal, AP Calc 11</td>
<td>SJU Precal, SJU Calc, SJU Stats or AP Calculus</td>
</tr>
<tr>
<td>Global 10 (H) or AP World History 10</td>
<td>USH (H) or AP USH</td>
<td>SJU National Government, Syracuse Psychology</td>
</tr>
<tr>
<td>Chemistry 10 (H) or AP Chemistry</td>
<td>Physics (H) or AP Physics 1</td>
<td></td>
</tr>
<tr>
<td>Computer Science Principles</td>
<td>Computer Science A</td>
<td>Cyber Security</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Internship</td>
</tr>
</tbody>
</table>
The Honors Program at Xaverian High School

Mission Statement:

Freshman & Sophomore Years

The Honors Program at Xaverian High School is designed to cultivate the talents, interests and scholastic aptitude of its ninth and tenth grade students through an interdisciplinary approach to academic study. Through a study of the core curriculum, students in the Program will have the opportunity to view the connections among distinct subject areas via complementary experiences integrated through enhanced exercises in critical reading, creative writing and the use of technology as both a research and writing instrument. The Honors Program fosters student preparedness for the AP Specialty Honors Programs in the junior & senior years.

Student Support

All students have a guidance counselor to meet with regularly to discuss academic and personal goals and issues. In addition, freshman and sophomores have an Exploration teacher as a mentor to provide them with academic support when needed such as tutoring or placement into our after school academic assistance program. Beginning in the sophomore year, students will have individual academic counseling sessions with their guidance counselor to explore course choices and to build an academic program for junior and senior year that will assist the student in meeting his college admission goals.

Honors Curriculum for Freshman & Sophomores

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>FRESHMAN YEAR</th>
<th>SOPHOMORE YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Religion</td>
<td>Religion 9(H)</td>
<td>Religion 10(H)</td>
</tr>
<tr>
<td>English</td>
<td>English 9(H)</td>
<td>English 10(H)</td>
</tr>
<tr>
<td>Social Studies</td>
<td>Global Studies 9(H)</td>
<td>Global Studies 10 (H) or AP World History 10***</td>
</tr>
<tr>
<td>Modern Language</td>
<td>Italian (9H)* French 9H* Spanish (9H)*</td>
<td>Spanish (10H)*</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Common Core Algebra (H) or Geometry 9 (H)</td>
<td>Geometry (H) or Algebra II Trig (H)</td>
</tr>
<tr>
<td>Science</td>
<td>Living Environment 9(H)* or Chemistry 9 (H)*</td>
<td>Chemistry 10(H)* or AP Chemistry 10***</td>
</tr>
</tbody>
</table>
In addition, all students must take Physical Education for all four years, science labs for Regents and AP courses, fulfill the New York State requirements for health and art/music, and complete a Xaverian High School research paper in all years. Students are also required to participate in community service for each of their religion courses and to complete Senior Involvement.

*students must pass a New York State Regents exam in this course

**students must take the AP exam in this course which, depending on the score and the policy of the university attended, may earn college credit

***students take both a New York State Regents and an AP exam in this course

**Regents Exams in Junior High School**

Students who earn an 85% or better on the Integrated Algebra Regents or the Living Environment Regents in junior high school do not need to repeat these courses at Xaverian and can begin at the next level. It is the student’s responsibility to provide the Admissions Office with proof of these scores as soon as possible to ensure proper placement in September.
Honors Programs

Pre-Professional Pathways

Junior & Senior Years

Student Admission

Students who successfully complete the Exploration Honors Program are expected to continue into one of the AP Honors Programs which offer multiple Advanced Placement courses in various subjects, allowing students to study at the college level and earn credit that they can take with them to into their future studies. We also offer “dual-enrollment” courses through our partnership with St. John’s University.

Students in the AP Honors Programs will be able to choose from several pre-professional “pathways”.

These avenues of concentration will allow juniors and seniors to pursue their interests, hone their skills in specialty areas, and compete for seats in professional degree programs at the most prestigious universities in the country. Students may choose from programs in Healthcare Sciences, Business & Economics, Law & Political Science, and Engineering. If a student wants to pursue other specialty areas or a combination of several, he may choose the AP Liberal Arts which will allow him to make a customized schedule by choosing classes from a list of approved honors courses. The AP Liberal Arts Program will allow students to concentrate in art, music, English, languages, history, etc. Each program has its own unique admissions requirements as well as course requirements.

The hallmark of these Honors Programs is that students will have the opportunity to participate in an internship during their senior year where they will chose a professional environment in which to work and garner experience in their chosen field. Students in all AP Honors Programs will also conduct a 2-year independent project under the guidance of a mentor.

General Requirements for the Honors Program

- Maintain an 85% average with no grade lower than an 80. (Some of the specialty programs have different grade requirements for admission & retention.)
- Take all required courses (as prescribed by New York State, Xaverian High School, and the Honors Program), fulfill all class requirements, and sit for all exams in your chosen program
- Complete an approved independent research project under the guidance of a chosen mentor
- Conduct an approved internship experience in a professional environment in congruence with the specifications of your chosen Honors Program.
Business & Economics Honors Program

Xaverian’s AP Business & Economics Honors Program will expose students to a diverse and comprehensive curriculum that will challenge them to synthesize concepts they learn with the reality of the current business climate. The Business & Economics program will maintain a curriculum that is innovative and responsive to the changes in the global business society. Using challenging and up-to-date technology, the Business & Economics program will introduce tools that are currently being used in the business world. By teaching students the essential analysis and presentation tools they will need throughout their lives, the program will produce well-educated graduates who are prepared to pursue degrees from accredited business schools.

Students must complete the following requirements

•  80% or above in Math and 85% or above in English.
•  All Core AP Honors Program Requirements
•  Two-Year Core Course in Business & Economics (Includes AP Microeconomics Exam)
•  Additional Senior Year Business Courses
•  Senior Year Internship in a Business Environment

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Business Organizations &amp; Society</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Year</td>
<td>Investing Fundamentals (H)</td>
</tr>
<tr>
<td></td>
<td>Introduction to Accounting</td>
</tr>
<tr>
<td></td>
<td>Syracuse Accounting</td>
</tr>
<tr>
<td></td>
<td>AP Microeconomics</td>
</tr>
<tr>
<td>Senior Year</td>
<td>Investing Fundamentals (H)</td>
</tr>
<tr>
<td></td>
<td>Introduction to Accounting</td>
</tr>
<tr>
<td></td>
<td>Syracuse Accounting</td>
</tr>
<tr>
<td></td>
<td>AP Microeconomics</td>
</tr>
</tbody>
</table>
Law & Political Science Honors Program

The Law & Political Science Program at Xaverian High School is designed for students with an interest in pursuing the fields of Law, Government, or Community Service. Students will be challenged with a rich liberal arts program that will include a Foundations of Law class on the Junior level with an opportunity to take advanced classes on the Senior level. This will include St. John’s American Government with a focus on Constitutional Law. Based on student interest, Xaverian will offer additional electives in this field. Students enrolled in this program will be encouraged to participate in Xaverian’s Mock Trial Program and the Model United Nations.

Students must complete the following requirements:

• 85% grade or above Global Studies 10 & English 10
• All Core AP Honors Program Requirements
• Two-Year Core Course in Law & Political Science (Includes AP Government & Politics Exams)
• Additional Senior Year Law Courses
• Senior Year Internship in a Law or Political Environment

<table>
<thead>
<tr>
<th>Sophomore Year</th>
<th>Foundations of Law &amp; Political Science (H)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior Year</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>Senior Year</td>
<td>Advanced Constitutional Law</td>
</tr>
<tr>
<td></td>
<td>SJU American Government</td>
</tr>
</tbody>
</table>
Liberal Arts Honors Program

The AP Liberal Arts Honors Program is designed for students who excel academically and have a variety of interests that they would like to pursue in their studies. Students can choose a program of electives from various disciplines to be studied at the Honors/AP/College level. Students can specialize in Art, Music, Literature/Writing, among several other possibilities. In consultation with the Dean of the Honors Program and their counselor, students will select a schedule that best meets their college goals.

Students must complete the following requirements

- All Core AP Honors Program Requirements
- Senior Year Internship in an Approved Professional Environment of Your Choice
- Create a program of Approved Honors-Level Electives in Areas of Personal Interest

| Sophomore Year | Studio Art                   |
|               | Creative Writing & Journalism |
| Junior Year   | Speech Writing & Public Speaking |
|               | Foundations of Drawing & Painting |
|               | Digital Art                  |
| Senior Year   | Architecture                 |
|               | Literature & Film            |
Specialized Studies

Students in The Ryken Program must register for the following courses according to their year in school: Only students enrolled in The Ryken Program may register for these courses.

Cultural and Ethical Studies

#1180 Culture and Ethics 9:
During the freshman year, the students study the Ancient and Eastern religions of Buddhism, Hinduism, Confucianism, Shintoism, and Zoroastrianism. The goal is to help students further their understanding of religions outside their experience. The course coordinates with the global studies curriculum. Multi-sensory methods of presentation will include power point presentations, internet research, films, portfolio assessment and various texts.

#2180 Culture and Ethics 10:
A course for sophomores designed to give them a solid foundation in the Western religions - Christianity, Judaism, and Islam. The information will be disseminated through the use of film, internet research, art and the text Religions of the World. Students will learn about ancient sacred texts, as well as the various traditions from ancient through modern times. The goal is to help students gain an understanding and tolerance of the main religions that have made the United States one of the world's most dynamic societies.

#3180 Culture and Ethics 11:
This course runs in conjunction with the United States History curriculum. The impact of religion and religious groups is looked at, as well as various ethical issues that have impacted the lives of Americans. Students use American film, literature, music, and the internet to deepen their understanding of their inter-relatedness of history and culture

Specialized Studies English Course Descriptions

#1281 Literacy Skills:
Literacy Skills is a course designed for high school students who need reading instruction through a multisensory structured language education approach or need support in reading and writing for optimum success as students in our Specialized Studies Program. It is designed to review foundational skills, continue instruction, and enhance previously learned skills and concepts. Units are designed according to basic reading concepts including reading comprehension, reading fluency, decoding, spelling, vocabulary, critical thinking, composition, and research skills. Units are also designed with reference to the different types of texts to which students are exposed in the general education setting including narrative, persuasive, informational, and current events texts. Assessments target each student's individual achievement in reading with emphasis on the expectation that students will read effectively, write with
complexity, and think critically for a variety of purposes. Standardized, pre and post-testing are completed throughout the year to chart student progress. Students will enhance critical skills needed to read for a purpose, respond to literature, and write for multiple disciplines.

#2281 Literacy Skills II:
Literacy Skills II continues with the curriculum topics that were covered in the Literacy Skills I course. While reinforcing skills already learned, students will enter into the realm of public speaking by presenting speeches that convince, inform, entertain, and persuade. Students will learn to analyze and evaluate a variety of authors, ultimately writing to formulate their own points of views which they can debate in a formal manner. In addition, they will utilize technology resources to create visual and audio presentations to prove ideas using a variety of techniques learned and mastered. Special attention will also be given to developing a clear and precise method of writing, revising, and editing multiple paragraph essays. This will help prepare students for the Global Studies, English, and U.S. History and Government Regents exams. Additionally, there will be a heavy emphasis on vocabulary as students get ready for the SAT and ACT testing.

#1280 English 9:
The focus of Freshman English is on reading for critical analysis and writing for effective communication. Given the basic tools for active reading, students investigate the effects of literary techniques and rhetorical strategies in an array of works, including short stories, poems, and long works of fiction, including William Shakespeare's *Julius Caesar*, Lorraine Hansberry's *A Raisin in the Sun*, and John Steinbeck's *Of Mice and Men*. Furthermore, various complex informational texts serve as the basis for analyzing a writer's purpose and tone. Each student maintains a "Writing Portfolio" of his or her formal writings. Writing is reinforced through daily journals on the literature and personal experience. Grammar is addressed through the students' practice of writing essays that describe, analyze, inform, argue, persuade, and compare/contrast. Likewise, all freshmen conduct the step-by-step process for completing a research paper in accordance with MLA style and format standards. With an emphasis on reading for context clues, students are introduced to new vocabulary words that are used in monthly articles in *The New York Times’ Upfront Magazine*. In addition, vocabulary is also taken from the literary works read in this course. In preparation for the ELA Common Core Regents exam in the junior year, students read closely and critically, producing text-based responses and analyses from a variety of sources.

#2280 English 10:
With the focus remaining on critical reading and writing, students further explore the world of literary characters who face difficult personal, moral, spiritual, psychological, and religious choices, often perceived as “outsiders” as a result of their heroic feats or tragic flaws. Through works such as the epic poem *Beowulf*, William Shakespeare’s *Macbeth*, Reginald Rose’s *Twelve Angry Men*, Marc Haddon’s *The Curious Incident of the Dog in the Night-Time*, Harper Lee’s *To Kill a Mockingbird*, along with other supplementary nonfiction works, students read and analyze several pieces of literature and engage in writing for literary analysis and interpretation. In addition to text-appropriate vocabulary, students read for context clues and for the nuances of a writer's diction in both fiction and nonfiction. Students read monthly articles from *The New York Times’ Upfront Magazine*, learning new vocabulary in context while
also staying up to date on issues in the world around them. In preparation for the ELA Common Core Regents exam in the junior year, students read closely and critically and produce text-based arguments and analyses in addition to writing from a variety of perspectives. Each student maintains an online writing portfolio of his or her written and revised pieces and fulfills several individual or group presentation components.

**#3280 English 11:**
This course teaches students to examine literary themes of morality and conscience, rebellion and revolt, perception and reality, and the individual in search of self-identity. All students read August Wilson's *Fences*, as well as other works such as Harper Lee’s *Go Tell A Watchman*, Nathaniel Hawthorne's *The Scarlet Letter*, Tennessee Williams' *A Streetcar Named Desire*, and Arthur Miller's *Death of a Salesman*, thereby reinforcing the skills of literary analysis and argumentation. In preparation for the January NYS ELA Common Core Regents, students thoroughly review the components of the exam, focusing on active reading strategies and carefully outlined writing skills for effective analysis and synthesis writing. Integrated throughout the latter part of the year, SAT critical reading and writing become the focus. Likewise, grammar and usage are taught based on topics suggested by the SAT. Each student maintains a "Writing Portfolio" of written and revised pieces.

**#4280 English 12 (College Prep):**
The senior course is designed to refine previously developed skills and to expose the students to some of the challenges likely to be encountered in college. The first half of the year emphasizes preparation for the December SAT, writing the college application essay, and close study of the summer reading text. The second half of the year focuses on the steps and procedures in writing an MLA research paper, which each student will complete. Readings, discussions, writings and reflections on World Literature texts allow students to explore new ideas and approaches while honing their critical analysis and writing abilities. All students read William Shakespeare’s *Much Ado About Nothing* and Jerome Lawrence and Robert E. Lee’s *Inherit the Wind*. Each student maintains a "Writing Portfolio" of written and revised pieces.

**#4282 Creative Writing (elective course option)**
This course encourages students to cultivate the necessary qualities of a professional writer in the literary world. Students will focus their attention on the craft behind writing imaginative literature. Students will have the opportunity to explore several different styles of writing including, but not limited to poetry and prose, as well as reflect and respond to literature, art mediums, quotes, media, movies, and music. Students will indulge in writing blogs, poetry, short stories, plays, book reviews, movie reviews, comedy, children’s books, advertisements, biographies, autobiographies and other types of writing that express creativity. Students will also read and analyze writing samples from professional writers as well as student writers to guide student progress. Originality and writing that shows thought will be emphasized. Strategies to avoid writer’s block and new ways to uncover ideas for writing will be studied. Peer reviews and sharing ideas are essential elements of this course. Students will be expected to carry their final pieces through the publication process, contributing to the production of Xaverian's art and literary magazine, *The Voyager.*
Social Sciences

#1380 Global Studies 9:

The objective of this course is to present to the student an overview of Global History from primitive times to the Age of Absolutism and to begin preparing for the NYS Global Regents examination in sophomore year. Special emphasis is given to global uniformities and local distinctions. Consistent with NYS Standards students will be required to examine key documents in World History.

#2380 Global Studies 10:

The course will analyze events and people from the Enlightenment to the present day along with a brief review of topics in Global 9. Students will be taught to think historically, culturally and politically about the historical evolution of States and societies. They will examine the impact that geography, resources, religion and culture had on that growth and what factors unite and what factors divide peoples around the world and across time.

#3380 United States History:

The students are introduced to a well-organized presentation of the experiences and accomplishments/failures of the American people and are given the basis for an objective and critical evaluation of the United States from Colonial Times to the Present. The ideas and institutions established by the American people and the influence they have attained over time are addressed. Students follow NYS Standards and take the NYS Regents in June.

#4383 Government/Ethics and Economics (Required for All Seniors):

The first half of this course focuses in on such topics as Civics, Citizenship and Government. Students will study contemporary and/or historic public issues to increase awareness of their rights and responsibilities as citizens. The term participation is interpreted in its broad sense. It is designed to engage students in the analysis of public policies and issues that are relevant to the individual student. A portion of the course will be devoted to crime in America and the Juvenile Justice System. The second half of the course designed to give students an understanding of basic economic concepts. Students become familiar with the economic system of the United States and how it operates. They also explore the roles of various components of the American economic system. Students examine their roles as consumer, worker, investor and voting citizen. Topics of discussion include the Stock Market, comparative economic systems, and the impact of political and social decisions on the economy.

# 4980/4683 Health/Physical Education/Transitional Skills

This is a full year course broken down into three (3) separate components.

The first component of the course covers personal and mental health, with emphasis on developing habits which can be incorporated into the student’s lifestyle. Sociological health problems: smoking, drugs and alcohol abuse, AIDS, and venereal disease are among some of the topics students will cover during the course. An essential goal of the course is to provide the student with data and knowledge in order that they may make positive choices to ensure their own good health. This class meets 3 times per 9 day cycle.
The second component of the course is Physical Education. Conditioning activities, participation in seasonal sport programs, physical fitness testing, self-testing apparatus skills, choice of activities in accord with the wishes, desires, and needs of the individual are the essentials of the year’s program. This part of the course meets 3 times per 9 day cycle.

The third and final component of the course deals with Transitional Skills. Topics covered will include SAT admissions test preparation, the College Application, Resume Writing, Personal Essay Writing, and Interview Skills. This portion of the course meets 3 times per 9 day cycle.

**#4380 Introduction to Psychology:**

The course aims to acquaint students with several basic areas of psychology covering topics such as measurement, the biological basis of behavior and developmental psychology. Topics in psycho-social development, cognitive development, learning, psycho-pathology and treatment are covered along with intelligence, motivation and therapy are addressed.

**Languages**

**# 2485 Spanish I:**

The students will learn the vocabulary, grammar and proper structure of the Spanish language. This course offers students with no previous experience in Spanish the opportunity to acquire the basic skills necessary to speak, read and write in a second language. The students will also become familiar with the culture and develop an appreciation of cultural distinctions. All lessons include the implementation of a variety of mediums to facilitate learning and follow the learning standard guidelines set forth in the NY State curriculum.

**#3485 Spanish II:**

This course offers students who have completed #1480 an opportunity to practice the skills necessary for speaking, reading and writing in a second language. All lessons include the implementation of a variety of media to facilitate learning and all lessons follow the learning standard guidelines set forth in the NY State curriculum.

**Mathematics**

**#1581 Integrated Algebra 9E (Extended):**

Selected topics in algebra and geometry serve as the course content. Students will master the ability to read, analyze and solve real world problems through a variety of methods. They will be able to demonstrate competency in various algebraic techniques. This is a NYS Regents course designed for students who will take the Regents exam in January of sophomore year.
Exam: Departmental in June.

#2580 Math 10:

Prerequisite: Successful completion of 1581 Integrated Algebra 9E course.

Students will complete Integrated Algebra 9 course during trimester one and sit for the Integrated Algebra Regents in January. Students will begin their study of geometry during trimester two and three and will sit for a departmental final exam in June. Students will follow the NYS Regents curriculum based on Euclidean and coordinate geometry. There will be some emphasis on proofs.


#3580 Math 11:

Students continue to study topics in the Geometry curriculum and continue to work with NYS Standards for Math. The concepts of Trigonometry are introduced as well as key topics from the SATs. Students move through the Math 11 curriculum as they master material appropriate to their individual Math skills.

Exam: Regents (Geometry) June.

# 4581 Algebra 2

This course covers the New York State Algebra II/Trig curriculum. Students will demonstrate the ability to use trigonometric relationships to solve real world problems, and develop patience and persistence in problem-solving, while demonstrating skill in the use of the graphing calculator. Students will also have an enhanced awareness of, and utilize the potential of, technological developments in a variety of mathematical contexts

#4582 College Prep Algebra:

This course is designed for students who wish to review the basic principles of algebra and trigonometry and study additional topics. Students qualifying for Senior Pre cal or Cal should not register for this course. Essentials from algebra and geometry will be reviewed and some time will be spent in preparation for the SAT. Topics will include Trigonometry, Logarithms, arithmetic and geometric progressions, synthetic division (used in the solution of higher degree equations), determinants (used in solving simultaneous equations in three unknowns), the graphing of Linear and quadratic inequalities and some basic calculus with application to maximum and minimum problems. Students will demonstrate a mastery of algebraic techniques and trigonometric concepts

Exam: Departmental Exam.

Science:

#1680 Life Science:

Students taking this course will be prepared for Living Environment Regents at the end of Sophomore year. At the conclusion of this course students will understand and apply scientific concepts, principles
and theories pertaining to the Living Environment and recognize the historical development of ideas in Science.

Exam: NYS Science RCT in June.

**#2680 Living Environment:**

This course has strong emphasis on four major topics, Ecology and Evolution, Genetics and Mutation, Cellular Respiration and Homeostasis. Emphasis will also be given in the following topics to gear for NYS Regents: Cytology, Biochemistry, and Scientific- Method of Design. All students will be expected to accomplish labs that will cover the topics mentioned. And be able to develop laboratory skills, improving writing and reading in the content area

Exam: Regents Exam in June

**#3620 Chemistry**

This course is for students who have already taken the Living Environment Regents exam and completed course #2628. An introductory Chemistry course that provides the student with an excellent foundation for future courses of a related nature. The subject matter of the course, is that of the New York State Regents Syllabus, and includes atomic structure, bonding, acid - base theory, radioactivity, quantum chemistry, inorganic and organic chemistry. Principles, laws and concepts are studied and experimentation and problem solving are used to verify them. At the conclusion of this course, students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting of chemistry and recognize the historical development of ideas in science.

Exam: Regents exam in June.

**#4684 Forensic Science:**

This is an interdisciplinary study of Science and Law. Students will examine investigative techniques and scientific methodology in determining evidentiary clues. Topics to be covered include: impression evidence (footwear and tire tracks), firearm and tool marks, explosives, trace evidence (hairs, fibers, glass) and chemical microscopy). Demonstrations and hands on participation offer unique opportunities. Ryken only.

Exam: Departmental exam in June.

**#4681 Physics**

**Standards** Based Instruction: This course will include information in compliance with the New York Performance Standards (GPS)/ Common Core. Students will analyze the relationships between force, mass, gravity, and the motion of objects. Students will evaluate the significance of energy in understanding the structure of matter and the universe. Students will evaluate the forms and transformations of energy. Students will analyze the properties and applications of waves. Students will evaluate relationships between electrical and magnetic forces. The student
will describe the corrections to Newtonian physics given by quantum mechanics and relativity when matter is very small, moving fast compared to the speed of light, or very large.

**Materials:** The following materials will be used in this class on certain days, mouse traps, foam boats, pendulums, toy cars and tracks.

**#4685 Introduction to Human Physiology**

Anatomy and Physiology is a course that will enable students to develop an understanding of the relationships between the structures and functions of the human body. Students will also learn the mechanisms for maintaining homeostasis within the human body. Specific focus will also be given to each system of the human body. This course will involve laboratory activities, projects, dissections, models, diagrams, and case studies. The class will be supplemented with the Pearson Mastering Anatomy and Physiology eBook. Prerequisite courses for Anatomy & Physiology are Life Science, Living Environment and Chemistry.

**Arts and Humanities**

**# 4881 Digital Art**

The Ryken Digital Arts class will introduce students to the fundamental skills needed to create artwork on the computer. This course will focus on the Adobe Suite, which includes Adobe Illustrator, Photoshop, and InDesign. The overall goal of this course is to present the student with the tools to render digital artwork. The student will understand various computer programs and how they are used in a professional setting. The student will develop the ability to think critically, analyze and critique art, develop artwork for a specific client and purpose. Also, students will become familiar with concepts from art history as it pertains to the Graphic Arts. By the end of this year long course, students will have a portfolio that includes a wide range of projects and artwork, including digital landscapes, logo design, digital portraiture, and photography.
Music/Band: Technique & Execution

These are full year programs open to students in each grade level who wish to begin or continue their study of a musical instrument. Students receive both practical instruction in playing a musical instrument as well as musical theory and composition. This is a full credit program offered on each grade level.

9th Year Program:

#1884 Jazz Chorus
#1885 Jazz Band
#1887 Music/Band
#1884 Orchestra

11th Year Program

#3884 Jazz Chorus
#3885 Jazz Band
#3887 Music/Band
#3884 Orchestra

10th Year Program

#2884 Jazz Chorus
#2885 Jazz Band
#2887 Music/Band
#2884 Orchestra

12th Year Program

#4887 Music/Band
#4881 Jazz Band
#4882 Jazz Chorus
#4884 Orchestra

#0184 Chorus - Chorus is open to any student who enjoys singing. There is an audition for voice placement.
#0185 Jazz Band (A or B) - (A) is Jazz Band I, the highest level jazz band. This group is for the highest level musician and is by audition only. (B) is Jazz Band II, the training ground for Jazz Band I. This group is by audition only.

#0187 Band (A, B, or C) - (A) is Select Band which is the highest level band performing group. This group is by audition only. (B) is Concert Band. This group is an intermediate group of musicians who are fine tuning their music skills. Some experience needed. (C) is Symphonic Band. Open to Freshmen only. The only requirement is an interest in learning an instrument.

#0484 Orchestra (A or B) - (A) is for the intermediate to advanced level string student with an interest in fine tuning their string skills. (B) is for the anyone interested in learning a string instrument.

#4886 Pipe and Drum – This program introduces students to the mechanics and skills for playing the Pipe and Drums. It is a performance course which engages students in daily practice sessions and which also requires students to participate in community activities and performances.

DrumLine:
#1885 Freshmen
#2885 Sophomores
#3885 Juniors
#4885 Seniors

Pep Band:
#1887 Freshmen
#2887 Sophomores
#3887 Juniors
#4887 Seniors

#4980/46Health/Physical Education
Required by New York State for secondary school graduation, this course must be taken by all seniors. This one semester course covers personal and mental health, with emphasis on developing habits which can be incorporated into the student's lifestyle. Sociological health problems: smoking, drug and alcohol abuse, AIDS, and venereal disease are among some of the topics students will cover during the course. An essential goal of the course is to provide the student with data and knowledge in order that they may make positive choices to insure their own good health.

#1980 Freshman Physical Education:

The freshman Physical Education Program places emphasis on basic body movements, calisthenics, apparatus, individual stunts and tumbling, achievement testing, lead up games, sport fundamentals (basketball, volleyball, hockey, handball, zone football, flag football and wiffle ball).

#2980 Sophomore Physical Education:

A general conditioning program and a review of fundamental skills previously taught. Additional instruction of more advanced skills and team play are added within this program. Gymnastics, physical fitness testing, relays and races are also included.

#3980 Junior Physical Education:

The principles of game skills and advanced team play are rapidly reviewed with an introduction to golf and the fundamentals of badminton. Body mechanics, individual exercise programs in fundamental movements, physical fitness testing, apparatus and gymnastic skills round out the program.

#4980 Senior Physical Education:

Conditioning activities, participation in seasonal sport programs, physical fitness testing, self - testing apparatus skills, choice of activities in accord with the wishes, desires, and needs of the individual are the essentials of the year's program.

Reading and Math Resource Room

Ryken

#6091

#6092

#6093
Reading and Math Resource Room - Freshmen Reading and Math Resource Room - Sophomores Reading and Math Resource Room - Juniors Reading and Math Resource Room - Seniors

All students are given the opportunity to engage in learning experiences that foster mastery of the goals and standards of New York State and each academic class. Each resource room period offers skills-based support for the students' academic courses with lessons that are introduced using a variety of different mediums to help students build upon prior learning and knowledge. Students also learn specific study skills, test-taking strategies, and techniques for incorporating compensatory skills, based on the students' specific needs, to enhance performance in the classroom as well as during formal assessment. Reading, writing, math and study skills lessons are all geared toward helping the students succeed in the classroom and in achieving the goals of their individualized education programs.

The Equity Program

The Equity Program provides small group skills-based support for students' academic courses. This course carries a grade and school credit. Students are instructed in compensatory strategies and skills to improve performance in the classroom, on tests and projects and to address the student's individual needs as stated in his IEP.

#6074 Academy Seniors

Students in The Ryken Program must register for the following courses according to their year in school: Only students enrolled in The Ryken Program may register for these courses.
The School Counseling Department

The Xaverian High School Guidance department provides a variety of services to students and their families. The department provides personal counseling and small group meetings with students from the various grade levels.

Throughout the first half of the year, the emphasis of all our staff is devoted energetically to freshman getting their high school careers off to a good start and to seniors in dealing with the college application process. This latter process includes facilitating parental evening meetings on the college application process, a meeting on Financial Aid and the distribution of an all-encompassing Senior Information Booklet, as well as weekly Mini-College Fairs in the Fall. The emphasis on these two groups does not negate the sophomore and juniors being seen during this time. All students are advised that they can be seen at any time during the school year by making an appointment.

The second half of the year, the department focuses on the Junior and Sophomore classes. Juniors are provided with the Junior Information Booklet which explains the college process. In addition to the booklet, there are several Parent Nights and class assemblies scheduled throughout the year to prepare the students for college and career exploration. Sophomores are also met by their counselors on an ongoing basis.

Students in every grade level are met throughout the year to support their academic, social and personal growth.

Our school counselors, school psychologist, or mental health therapists are always available for parent meetings. These individual meetings are available by appointment and are strictly confidential.

Needless to say, all of our efforts are supported by the administration and faculty and we work closely in conjunction with the entire school community to assure a united effort in helping our young men to get the optimum direction throughout their high school careers.