



The Academy of the
HOLY CROSS

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Program of Studies
2017-2018

TABLE OF CONTENTS

GENERAL INFORMATION

INTRODUCTION
GRADUATION REQUIREMENTS
FREQUENTLY ASKED QUESTIONS
ADVANCED PLACEMENT COURSES
DUAL CREDIT AND DUAL ENROLLMENT WITH MARYMOUNT UNIVERSITY
PROJECT LEAD THE WAY ENGINEERING COURSES
INTERNATIONAL BACCALAUREATE (IB) COURSES AND IB DIPLOMA
ONLINE COURSES
SUMMER SCHOOL COURSES OFFERED FOR-CREDIT
SUGGESTED CURRICULUM FOR FRESHMEN
THE REGISTRATION PROCESS
SPECIAL APPROVAL FOR ADVANCED-LEVEL COURSE
THE COURSE REGISTRATION PROCESS
LIST OF COURSES REQUIRING ALTERNATES

DEPARTMENTS AND COURSES

ENGLISH
HISTORY AND SOCIAL STUDIES
MATHEMATICS
PERFORMING ARTS
PHYSICAL EDUCATION AND HEALTH
SCIENCES
TECHNOLOGY
THEOLOGY
VISUAL ARTS
WORLD LANGUAGES
MOREAU OPTIONS PROGRAM
ELECTIVES
IB PROGRAMME COURSES THROUGH PAMOJA EDUCATION ONLINE
ONLINE SCHOOL FOR GIRLS

INTRODUCTION

The goal of our educational program is to provide the opportunities and challenges necessary for students to achieve their full potential as women of faith in today's society. To achieve this goal, the curriculum offers students a variety of learning experiences in liberal and creative arts, mathematics, science, and career education.

GRADUATION REQUIREMENTS

A minimum of 24 credits is required for graduation.

4	English
4	Math
3	Science Including Biology and Chemistry <i>Note: all courses have a lab component</i>
3	History and Social Studies ($\frac{1}{2}$ Government, 1 US History, 1 World History or other eligible social studies course as indicated in course description, $\frac{1}{2}$ elective)
4	Theology
3	World Languages (2 in same language)
1 $\frac{1}{2}$	Health and Physical Education (Health, PE I and PE II)
$\frac{1}{2}$	Visual Arts (Studio Art I, Photography I, or Ceramics I)
$\frac{1}{2}$	Performing Arts
$\frac{1}{2}$	Technology

SENIOR PROJECT

All students must also complete a comprehensive Senior Project during their senior year. Information regarding this long-standing program is provided to students in the fall of senior year.

CHRISTIAN SERVICE COMMITMENT

Students are required to complete service hours that fulfill their Christian Service Commitment. Freshman, Sophomores, and Juniors are required to complete 20 hours of service each year. Due to the demands of the Senior Project, seniors must complete 15 service hours by the end of the 3rd quarter. All service sites must be approved by the Christian Service Office prior to the students beginning service.

FREQUENTLY ASKED QUESTIONS

How is my daughter's schedule organized?

We follow a modified block schedule with a recurring sequence of Purple and White Days. On Purple Days, periods A-D meet; on White Days, periods E-H meet. All classes are approximately 90 minutes long. Most students enroll in seven classes (six core courses and one elective, typically), as well as a study hall. Students must enroll in 6 courses and may have two study halls, provided those study halls fall on opposite days.

What is the difference between Honors- or AP- or IB-level and On-level courses?

The required critical thinking skills, as well as synthesis and analysis of materials are more advanced in an Honors-, AP-, or IB-level course; the required, day-to-day workload is also more intense than in an On-level course. The Honors-, AP-, and IB-level courses move at a faster pace, encourage deeper analysis, and require greater independence than On-level courses.

If my daughter does not take an Honors-level course, will she be eligible for AP or IB courses?

Yes; placement in advanced-level courses is determined by past academic performance and department approval is required. We encourage our students to challenge themselves in areas where they feel they excel; students who are engaged in their learning typically perform better in class. We do not track students and therefore we encourage all students to strive for advanced classes. We recommend that students speak with their current teachers and counselors to determine which courses are right for them.

What grades are required in current courses in order to enroll in Honors, AP, or IB Courses?

Students currently enrolled in an Honors, AP, or IB course in a given department require a grade of B or higher in order to continue with further Honors, AP, or IB courses in that content area. Students in on-level courses in a given department require a grade of B+ or higher in order to enroll in Honors, AP, or IB courses in that content area. Students who do not meet the grade requirement may seek special permission to take Honors, AP, or IB courses during the registration process. The final determination for enrollment is made by the Assistant Principal for Academics, in consultation with the Department Chair.

Are students able to change levels (move from On-level to Honors, for example) at the semester?

We generally do not move students at the end of the semester because the curriculum between the two courses does vary. That being said, students are encouraged to discuss any potential move with their teacher and counselor.

Why and how are placements made for incoming freshman students?

Incoming students may take placement tests in Math (if they have been recommended to move to a higher level) and Language (if they are continuing with the language they have been taking). We look at scores from the High School Placement Test as well as prior academic performance to determine which courses students should take.

Are students required to sit for AP exams and write IB papers at the end of their AP or IB class?

Students in the IB Diploma Programme are required to complete all IB assessments in order to earn their IB Diploma; students in AP courses are also required to take the Advanced Placement exam in the spring of the year. IB courses are offered in two formats: Standard Level (SL) and Higher Level (HL). Students who are enrolled in an SL course, but who are *not* IB Diploma candidates, are strongly encouraged but *not required* to take the SL exam. All students enrolled in an HL course *are required* to take the HL exam.

Can students take for-credit classes in the summer to create space in their schedules the following year?

There are two scenarios in which a student may take for-credit classes in the summer. As stated in our *Student and Parent Handbook*, if a student fails a course, she must repeat the course and earn a passing grade in summer school (offered outside of the Academy) in order to be eligible to return to the Academy. Holy Cross also offers two courses in the summer intersession: Physical Education and Public Speaking. Current students may enroll in these courses to satisfy graduation requirements and to create additional options for elective courses in their regular academic year schedule. Incoming Freshmen may enroll in the summer Physical Education course.

If a student participates on a Holy Cross athletic team, is her Physical Education requirement waived?

No; we require all students to complete PE I and PE II, and we encourage students to take advantage of the opportunities provided through our Athletics program.

How does dual credit and dual enrollment with Marymount University work?

Students who are interested in dual credit and dual enrollment options with Marymount University should speak with their college counselor to receive information and an application. Fees for dual credit and dual enrollment are paid directly to Marymount University; students also submit their application and course registration directly to Marymount University.

What is Project Lead the Way and how does my daughter become involved?

Project Lead the Way (PLtW) provides the hands-on, project-based model used at Holy Cross to introduce students to the field of Engineering. Students in any grade level may pursue Project Lead the Way courses provided they have successfully completed Algebra I. All students must begin the sequence with the Introduction to Engineering course.

ADVANCED PLACEMENT (AP) COURSES

The Academy of the Holy Cross offers a wide variety of Advanced Placement (AP) courses. AP courses are those for which a College Board Advanced Placement examination exists; the curriculum for these courses follows guidelines established by the College Board and is externally approved each year in which a given course is offered. A qualifying score on an AP exam may give a student credit or advanced standing in that subject in college.

Students who are currently in an advanced-level course within the department in which an AP Course is offered require a grade of B or higher or special departmental approval to enroll in further AP courses; students in On-level courses require a B+ or higher, or special departmental approval.

All students who enroll in an AP Course are required to take the AP exam, offered in the spring of the year. Students who do not complete this exam will not be granted weighted AP credit on their transcript.

AP Courses have fees associated with their culminating examination. For the May 2017 exam session, the cost for each AP exam is \$93.

AP Courses in the current Program of Studies include:

English:

AP English Language & Composition
AP Literature & Composition

History and Social Studies

AP US Government
AP Comparative Government & Politics
AP US History

Mathematics:

AP Calculus AB
AP Calculus BC
AP Statistics

Science:

AP Biology
AP Physics C Mechanics

AP Language Exams Note: students who are interested in writing the culminating AP examination in a World Languages course after completion of IB Spanish, IB French, or IB Latin may arrange to do so in consultation with the Chair of the Department of World Languages and the Assistant Principal for Academics.

DUAL ENROLLMENT / DUAL CREDIT WITH MARYMOUNT UNIVERSITY

Beginning in the fall of 2017, The Academy will offer a dual credit/dual enrollment program in partnership with Marymount University to afford eligible students two opportunities to earn college credit. Dual credit allows eligible seniors in strong academic standing to fulfill a high school academic requirement while simultaneously earning college credit for a course. These courses are taught on our campus during the school day by Holy Cross faculty members who have achieved adjunct faculty status at Marymount. These credits may be transferable to other colleges and universities, depending upon the school and its policies. As with AP and IB courses, students enrolled in these courses receive 0.7 additional grade points towards

their GPA upon successful completion of the course with a grade of C- or higher. (For more information, please refer to the grading scale in the Holy Cross Student and Parent Handbook.)

Under the dual enrollment arrangement, rising seniors at Holy Cross become eligible to take courses at Marymount University in Arlington, VA at a substantially discounted rate.

Dual Credit Courses in the current Program of Studies include:

English:

Creative Writing

Theology:

Religions of the World

History & Social Science:

Microeconomics

PROJECT LEAD THE WAY ENGINEERING PROGRAM

Beginning in the fall of 2017, The Academy will introduce students to the field of engineering through a nationally recognized, hands-on, project-based curriculum that draws upon their knowledge of math and science through the model of Project Lead the Way (PLtW). PLtW Engineering empowers students to step into the role of an engineer and adapt a problem-solving mindset. The program engages students in collaborative, real-world activities such as working with a client to design a home or programming electronic devices or robotic arms. As students work together to design and develop solutions to local and global challenges, they engage in problem-solving strategies and critical and creative thinking. Students will also be afforded an opportunity to develop hands-on engineering capabilities through their participation in the FIRST Robotics Competition.

Project Lead the Way Courses include:

Honors Introduction to Engineering

Honors Principles of Engineering (beginning in 2018-2019; Honors Introduction to Engineering is a prerequisite)

INTERNATIONAL BACCALAUREATE (IB) COURSES AND IB DIPLOMA

The IB Diploma Programme at The Academy of the Holy Cross is an optional, two-year program of rigorous learning during a student's junior and senior years. The International Baccalaureate challenges students to excel in their studies and in their personal growth. The aim of an IB global education is to inspire students from all around the world "to become active, compassionate, and lifelong learners who understand that other people, with their differences, can also be right" (IB Mission Statement). IB is a universal, skills-based curriculum with a guided philosophy of cultural awareness.

A student may choose to enroll in the IB Diploma Programme during the course registration process in the spring of her sophomore year. To receive the IB Diploma, she must successfully complete 3 classes at the Standard Level (SL), and 3 at the Higher Level (HL). All HL classes will run over two school years; at least one of the SL courses must also run over two years. In addition to her academic classes, each IB Diploma Candidate must complete requirements in the IB Core: Theory of Knowledge (ToK), Extended Essay (EE), and Creativity, Activity, Service (CAS). More information on IB Diploma requirements and the IB Core is available in the IB Programme Handbook (found on the International Baccalaureate Programme page of the Holy Cross website, under the Academics tab).

Students who do not choose to pursue the IB Diploma, but wish to challenge themselves with the rigor and mindsets of the IB Programme may enroll as Course Candidates in either SL or HL classes. Please note that some IB Courses are available only to IB Diploma Candidates.

Students who are enrolled in an SL course but are *not* IB Diploma candidates are strongly encouraged, but *not required* to take the SL exam. Students who do not write the IB SL exam will be required to complete a school-based assessment. All students enrolled in an HL course *are required* to take the HL exam.

All IB Diploma Candidates must sit for all SL and HL exams, as well as complete the core components (ToK, EE, and CAS) in order to be eligible to earn the IB Diploma. A breakdown of points required to earn the IB Diploma is also available in the IB Programme Handbook.

Like AP courses, IB courses have fees associated with their culminating examinations. For the May 2016 exam session, these costs were \$116 per exam, plus a \$168 registration fee. A detailed Timeline of Fees is available in the IB Programme Handbook.

IB Courses in the current Program of Studies include:

Note: all courses run two years unless otherwise noted.

Group 1: Language & Literature in Native Tongue

IB English Literature HL

Group 2: Acquired Language

IB Spanish SL, Spanish HL

IB Latin SL

IB French SL, French HL

Group 3: Individuals and Societies

IB History HL

IB History SL (one year)

IB Economics SL (one year)

IB World Religions SL

Group 4: Experimental Sciences

IB Environmental Systems SL (one year)

IB Biology HL

IB Chemistry SL (one year)

IB Physics HL

IB Design Technology SL

Group 5: Mathematics

IB Mathematical Studies SL (one year)

IB Math SL

Group 6: The Arts

IB Film HL

IB Theatre HL

IB Dance SL

IB Visual Art SL

ONLINE COURSES

The Academy offers online courses through both the Online School for Girls (OSG) and Pamoja Education. Our courses are selected from those available in a given year.

Note that online courses have additional associated fees and the Assistant Principal for Academics must approve enrollment. Students interested in taking an online course must complete the Online Course Request form, available on the Useful Forms page of the Student (or Parent) Portal.

For course descriptions, please see the related sections in this Program of Studies.

ONLINE SCHOOL FOR GIRLS (OSG)

The Academy of the Holy Cross is a member of the Online School for Girls (OSG), a consortium of over 70 girls' schools from across the country. Membership in the OSG allows us to expand our course offerings and connect our students in meaningful, academic pursuits with students around the country and around the world in a blended-learning environment.

We believe that providing the best tools for the way girls learn is critical to ensuring their success academically. With that in mind, we believe that online education is particularly well suited to girls who are independent, motivated, and mature. Online education is the fastest growing segment of education today. More than three million high school students and more than six million college students took an online course last school year as part of their curriculum at their face-to-face schools. We know that these numbers will only grow in the future as more and more schools and professions look to online education and training.

The Online School believes in and has dedicated itself to:

- Emphasizing connection among participants
- Incorporating collaboration into the learning experience
- Inspiring and rewarding creativity
- Engaging in real-world problems and applications while having students probe the social and ethical dynamics that define and stretch our global society

The Online School for Girls is fully accredited with the Middle States Association of Colleges and Schools. Courses in Mathematics, Science, Social Science and Language have been approved by NCAA as core-courses. AP courses have been approved by the College Board.

Note regarding fees: OSG courses have an additional associated fee, which is \$1,495 per course in the 2017-2018 academic year. Enrollment also requires approval from the Assistant Principal for Academics. Students interested in taking an online course must complete the Online Course Request form, available on the Useful Forms page of the Student (or Parent) Portal.

Note regarding required courses for graduation: in certain circumstances, where school-based courses needed to fulfill graduation requirements are not offered because of factors like low enrollment, The Academy of the Holy Cross will pay the enrollment fee for an OSG course. For instance, a student who enters Holy Cross at an advanced level in Mathematics, taking Algebra II as a freshmen, could enroll in OSG's Multivariable Calculus and Differential Equations course as a senior at no cost to her.

SUMMER SCHOOL COURSES OFFERED FOR-CREDIT

Two courses are offered on a for-credit basis during the Summer Intersession at The Academy of the Holy Cross. These are Physical Education and Public Speaking, both of which carry a value of ½ credit, and are open only to current Holy Cross students. Incoming Holy Cross students may enroll in Physical Education.

Physical Education may be used to fulfill the Physical Education I or Physical Education II graduation requirement, depending upon which of these the student has not yet completed. A student may choose to take this summer course in order to create additional elective options in her schedule.

Public Speaking may be used to fulfill a ½ credit of the Performing Arts graduation requirement. As with Physical Education, a student may choose to take this summer course in order to allow additional elective options in her schedule; she may also enroll in this course to complete a requirement for the Madeleva Scholars Program.

Note regarding fees: There is an additional fee associated with enrolling in a course during the Summer Intersession. Please see the Assistant Principal for Academics if you are interested in enrolling in either course. Students must also complete the Summer Course Request form, available on the Useful Forms page of the Student (or Parent) Portal. In 2016, the fee for summer courses was \$450.

SUGGESTED CURRICULUM FOR FRESHMEN

A typical incoming freshman will enroll in seven classes and a study hall.

English

English I: Honors or On-level

World Languages

French

Latin

Spanish

Science

Biology: Honors or On-level

Honors Introduction to Engineering (*optionally, and based upon prerequisites*)

Math

The particular course is based upon placement tests and previous academic performance in the subject.

History and Social Studies

US Government: Principles and Structure: Honors or On-level (*one semester only*)

Theology

Revelation of Jesus: Honors or On-level (*Fall Semester*)

The Blessed Trinity: Honors or On-level (*Spring Semester*)

Study Hall

Students do not take all of the following semester-long courses, but will choose from these categories to complete their schedule. The majority of freshmen enroll in Health and one additional course from the list below.

Physical Education & Health

Health

Physical Education I

Performing Arts

Modern Dance, Introduction to Ballet, Musical Theater Dance

Glee Choir, Guitar Seminar, Instrumental Ensemble

Technical Theater, Film Studies, Introduction to Acting

Technology

Yearbook

Technology Concepts and Applications

Introduction to Computer Programming

Visual Arts

Studio Art I

Ceramics I

Photography I

THE REGISTRATION PROCESS

Registration for the next academic year's courses begins in January of the current year. Students are introduced to the process and provided guidance by grade-level. Individual academic counseling is also provided, after students have completed a draft of the Registration Form and had an opportunity to consult with faculty members.

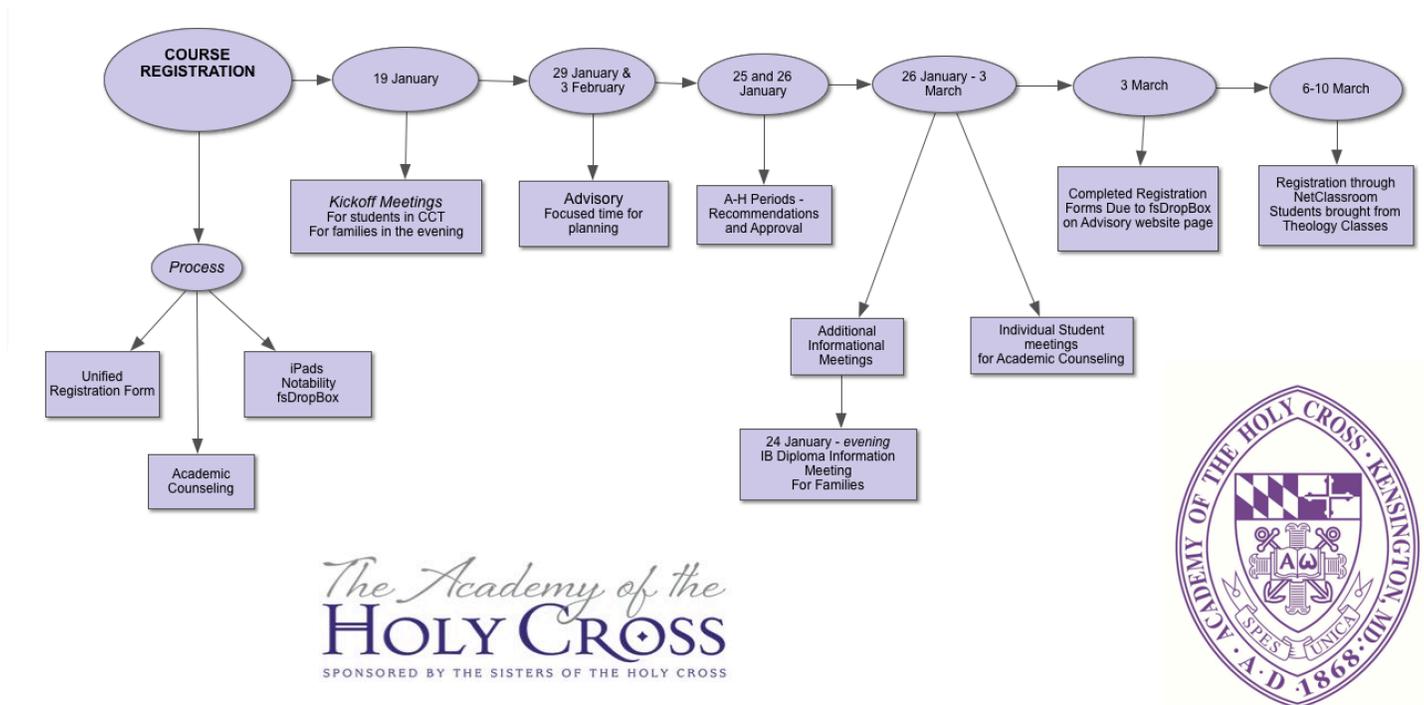
Students currently attending Holy Cross complete a Course Registration form available to them online through the Student Portal Page for their Class. This form is reviewed by counselors or the Assistant Principal for academics and submitted online to a designated *dropbox*, also available on the student's Class Advisory page.

Enrollment Note: courses offered in the Program of Studies are dependent upon enrollment. In many instances, when minimum enrollment numbers are not met for a given course, an online alternative is available.

SPECIAL APPROVAL FOR ADVANCED-LEVEL COURSE

During two school days in January, students are given time at the beginning of each of their classes (A through H Periods) to consult with their current teachers about recommended courses for the following school year in given content areas. Students who are not approved by their teachers at this point for an advanced-level course may complete the Request for Advance-level Course Consideration form, which is available from the Assistant Principal for Academics. Completion of this form does not ensure acceptance into an advanced-level course. In consultation with the Department Chair, the Assistant Principal for Academics will make the final determination of placement.

THE COURSE REGISTRATION PROCESS



LIST OF COURSES REQUIRING ALTERNATES

<p>English AP English Literature Shakespeare Visions of the American Dream Fantastic Realities Creative Writing Voices: Women Writing about Women</p>	<p>History and Social Studies US Government & Honors US Government Economics American Legal Systems AP US Government AP Comparative Government and Politics</p>
<p>Performing Arts Glee Choir Guitar Seminar Instrumental Ensemble Madrigals & Honors Madrigals Public Speaking Technical Theater Film Studies Introduction to Acting Jazz/Hip-Hop I and II Modern Dance Musical Theater Dance</p>	<p>Physical Education and Health Physical Education I Physical Education II Physical Education III Introduction to Sports Medicine</p>
<p>Science Anatomy and Physiology AP Biology</p>	<p>Theology Justice and Faith Ecumenical and Interreligious Studies World Religions</p>
<p>Visual Arts Studio Art I & II Graphic Design I & II Ceramics I & II Photography I & II</p>	<p>Technology & Electives Technology Concepts and Applications Introduction to Computer Programming Yearbook Peer Ministry</p>

ENGLISH

Chair: Alison Westfall

4 credits required

The members of the English Department value the responsibility of guiding students in deepening their knowledge of the English language and literature, while sharpening their critical and analytical thinking skills. The critical and creative thinking involved in this study, and the emphasis on clear written and oral communication are essential to the individual student's success in higher learning and her future professional endeavors. Moreover, literature can open a student's mind and heart to the world around her as she encounters the voices and ideas of writers of different eras, from diverse backgrounds, and from various geographic locales. In considering composition, the goal is that students will be able to express themselves correctly, gracefully, and effectively whether applying themselves to analytic, expository, creative, or personal writing. Realizing that students have many different skills and talents, members of the department endeavor to engage them on different levels - cognitive, affective, and aesthetic - and to stimulate them with teaching that addresses their needs as readers, writers, communicators, and members of a learning community.

Course Offerings 2017-2018 (detailed descriptions follow):

English I & Honors English I	Shakespeare
English II & Honors English II	Visions of the American Dream
English III	Fantastic Realities
AP English Language and Composition	Approaches to Creative Writing (<i>Marymount University – new in 2017-18</i>)
AP English Literature and Composition	Creative Writing
IB English HL I & HL II	Voices: Women Writing about Women

201 English I (full year, 1 credit)

Grade 9

In the first year of the English program, students acquire a background in mythology and read selections of the *Odyssey* in translation, while engaging in the process of analytical reading and writing. In the second semester, students are introduced to exemplars of British poetry and drama in order to appreciate literary tradition and begin to understand the devices and language of literature. They will analyze examples of early English poetry and prose, including such works as *Beowulf*, excerpts from Chaucer, poetry, and a play by Shakespeare and trace themes and other elements in a modern novel. Students will work throughout the year on increasing their vocabulary and grammar skills, and developing composition skills, particularly on the analytic essay. Students will carry out small research projects, prepare oral presentations, and engage in discussions about their work.

251 Honors English I (full year, 1 credit)

Grade 9

Prerequisite: department approval required

Students acquire a wide background in classical mythology and will read the *Odyssey* in translation, while engaging in the process of analytical reading and writing. In the second semester, students begin to study British literature chronologically in order to understand and appreciate both literary traditions and the devices and language of literature. They will examine examples of early English poetry and prose, including such works as *Beowulf*, excerpts from Chaucer, poetry, and a play by Shakespeare and trace themes and other elements in a modern novel. In conjunction with the analysis of literature, students will work throughout the year on the craft of writing analytic essays and will regularly compose critical evaluations of aspects of the works under discussion. Students will carry out small research projects, prepare oral presentations, and engage in discussion about their work. The Honors course moves at a faster pace, encourages deeper analysis, and requires greater independence than English I.

202 English II (full year, 1 credit)

Grade 10

Students continue developing their analytic skills through the study of British literature, beginning with a play by Shakespeare, and progressing to examples of modern works. Students explore the traditions of British literature begun in English I through a study of developing genres, such as the essay, the novel, the modern short story, and poetry. They continue to hone their composition skills, writing different types of literary analysis, and producing a well-documented research paper in the second semester. In addition, students continue throughout the year to develop their vocabulary and grammar skills, produce individual and group creative projects, and engage in discussion about their work.

252 Honors English II (full year, 1 credit)

Grade 10

Prerequisite: department approval required

Students continue developing their analytic skills through the study of British literature, beginning with a play by Shakespeare and progressing through the Victorian period. Over the course of the year, students examine changing traditions and developing genres, such as the tragedy, lyric poetry, the essay, and the novel. Students continue honing their composition skills, and in the first semester, write a research essay on a literary work. As students read works by the representative authors, they explore additional types of literary response and analysis, and produce additional individual and group projects while probing the literature in greater depth and moving at a faster pace. Students continue to develop their vocabulary, grammar, and composition skills to achieve a higher degree of effectiveness and elegance in their writing and speech. The Honors course moves at a faster pace, encourages deeper analysis, and requires greater independence than English II.

203 English III (full year, 1 credit)

Grade 11

Students examine the development of American literature and thought, beginning with colonial period and progressing into selected 21st century writings, representing various genres and voices. Over the course of the year, students examine motifs of American literature, changing traditions, and developing genres, such as essays, short stories, poetry, the memoir, and the novel. Students continue honing their analytic reading and writing skills, and their research skills, in addition to responding creatively to their reading.

217 AP English Language and Composition (full year, 1 credit)

Grade 11

Prerequisite: department approval required

The course focuses on the development of American culture and character from the beginnings of the American tradition through the present. In addition, through the study of the structure and form of language and rhetorical strategies, the course specifically prepares students for the AP Language and Composition exam, which all students are required to take in the spring of the year.

218 AP English Literature and Composition (full year, 1 credit)

Grade 12

Prerequisite: department approval required

Students engage in the careful reading of literature and the careful analysis of many works in order to sharpen their awareness of language and their understanding of the writer's craft. Students read each work and write about it with the critical awareness of the full range of its stylistic features, its structure, its meaning, and the perspectives offered by critical interpretation. Through units on poetry, the short story, the novel, and the drama taken from different time periods and different locales, students develop critical standards essential for the independent appreciation of any literary work and increase their appreciation of literature as a shared experience. All students are required to take the Advanced Placement exam in the spring of the year.

214 Shakespeare (fall semester, ½ credit)

Grade 12

Shakespeare wrote his plays to be produced on stage. In this course, students will read three of Shakespeare's plays, *Hamlet*, *A Midsummer Night's Dream*, and *Othello*. Students will investigate the language and performance aspects of Shakespeare's plays, including undertaking some of the tasks involved in bringing a play to life and presenting scenes from plays in class. Students will read critical essays written about the works under discussion and write their own analyses. All students are encouraged to attend a production of a Shakespeare play in the DC area.

224 Visions of the American Dream (spring semester, ½ credit)

Grade 12

Visions of the American Dream looks at a range of responses, both literary cinematic, to the theme of the American Dream. Students study texts reflecting much of 20th century American history. Works will include novels and plays, with a focus on a range of American writers. In addition, students watch and respond to depictions of the American experience as reflected in film.

231 Fantastic Realities (fall semester, ½ credit)

Grade 12

This survey course examines the genre of fantastic fiction including the sub-genres of science fiction, fantasy, and magical realism. The course focuses on a variety of contemporary authors from the mid-twentieth century and beyond. Students will submit both written and oral responses to works of this fascinating but often neglected literature. Texts include *Never Let Me Go* by Kazuo Ishiguro, *1984* by George Orwell, *Fahrenheit 451* by Ray Bradbury, and short stories by Haruki Murakami.

226 Creative Writing (spring semester, ½ credit)

Grade 12

Students develop their writing skills by studying the components of poetry and fiction. Students look at creative writing as a process that involves reading, writing, and revision. Students use contemporary poems and stories as models for developing their own sense of craft, style, and voice. Students discuss their writing in a workshop environment, producing a portfolio of their work throughout the semester.

EN 270 Approaches to Creative Writing (Marymount University Dual Credit (3 college credits); fall semester, ½ credit)

Grade 12

Prerequisite: AP English Language and Composition or IB English HL I; department approval required.

Note: Dual credit allows eligible seniors in strong academic standing to fulfill a high school academic requirement while simultaneously earning college credit for the course. This course is taught on Holy Cross campus during the school day by Holy Cross faculty members who have achieved adjunct faculty status at Marymount. Dual credit students have access to the Marymount Library. Marymount bills and enrolls the accepted student directly (\$360 per course). These credits may be transferable to other colleges and universities, depending upon the school and its policies.

This college course provides an introduction to the stylistic and technical elements of fiction, poetry, creative nonfiction, and writing for performance through assigned readings of professional examples and writing exercises. Students will discover and develop strategies for the composition and revision of poems, short stories, nonfiction essays, and short dramatic scenes. The course is provided in a workshop format and focuses on the production, critique, and revision of student writing

222 Voices: Women Writing about Women (spring semester, ½ credit)

Grade 12

Students discover the richly diverse voices of American women writers of various ethnic backgrounds through memoir, novels, and short stories. Students read works of a sampling of modern and contemporary writers, write personal and analytic essays, lead discussions, and work on projects that lead them to appreciate the unique elements of the works.

283 IB English HL I (full year, 1 credit)

Grade 11

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course.

This is the first part of a two-year exploration of literature—one that encourages students to see literary works as products of human creativity and ingenuity. The course introduces students to a range of literary works of different periods, genres, and styles. In addition, students will develop the ability to engage in close, detailed analysis of literature. This course promotes a personal appreciation of literature while developing an understanding of the techniques involved in literary criticism. The first year includes two IB directed components featuring School's Free Choice and World Literature, with an emphasis on oral presentations, both individually and with groups. The final essay is externally assessed and demonstrates the student's ability to analyze independently a studied work. All students are required to take the IB exam for this course at the end their second year.

284 IB English HL II (full year, 1 credit)

Grade 12

Prerequisite: IB English HL I and department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course.

The first part of IB English HL II covers the required "Detailed Study" of the IB curriculum, in which students read, analyze, and discuss one Shakespeare play, one work of fiction, and a body of poetry, drawn from literature written in English. Students will also present formal oral commentaries of texts studied in the course, to be monitored externally by the IB Organization. Students will read additional material to supplement the readings prescribed by IB, and will carry out writing and oral assignments, as typical of an advanced literature course. Works have been selected within the scope of the IB Prescribed Book List to prompt the students to reflect on the conflicts and responsibilities of women as individuals in their societies.

The second part of IB English HL II presents the required "Groups of Works" component of the IB curriculum. The students will study four works of the same genre representing a variety of voices and viewpoints in the English-speaking world. In addition to the assessments typically carried out for a course at the Academy, all students are required to take two two-hour exams to be marked externally by the IB Diploma Programme.

HISTORY AND SOCIAL STUDIES

Chair: Maureen Morris

3 credits required

Required courses include: Government (½ credit), US History (1 credit), World History or other eligible social studies course as indicated in course description (1 credit)

The remaining ½ credit is elective within this department

As a department, we prepare students to be active and informed citizens of their local, state, national, and global communities, through dynamic and engaged classroom instruction. We believe pursuing History and Social Studies gives students the opportunity to become more responsible leaders as well as to develop the critical thinking and technology skills necessary to succeed in the 21st century.

Course Offerings 2017-2018 (detailed descriptions follow):

U.S. Government	AP Comparative Government and Politics
Honors U.S. Government	AP U.S. Government
U.S. History	American Legal Systems
AP U.S. History	Economics
Modern World History	Microeconomics (<i>Marymount University – new in 2017-'18</i>)
IB Economics SL	
IB History SL	
IB History HL	

936 US Government (fall or spring semester, ½ credit)

Grade 9

Students examine the structure of the United States federal government by investigating the branches of government, the Constitution, political parties, and elections. Students simulate Congress as they pass bills and engage in classroom debate on selected problems facing US democratic institutions and society. Other themes include federalism, constitutional development, and the role of media, campaigns, and elections in American government and politics. Particular emphasis is given to current events.

957 Honors US Government (fall or spring semester, ½ credit)

Grade 9

Students examine the structure of the United States federal government by investigating the branches of government, the Constitution, political parties and elections. Students simulate Congress as they pass bills and engage in classroom debate on selected problems facing US democratic institutions and society. Other themes include federalism, constitutional development, and the role of media, campaigns, and elections in American government and politics. Particular emphasis is given to current events. Students are expected to demonstrate a high level of critical thinking, writing skills, and independent analysis. Increased rigor in class discussion, homework, and assessments will be commensurate with an honors course.

992 AP US Government (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required

Students use a variety of primary and secondary sources to enhance their basic understanding of the structure and function of American government. The course will cover political themes in the American founding and framing period, Constitutional development, federalism, linkage institutions, policymaking institutions, and civil rights and civil liberties. Important concepts will also be explored through the lens of current events. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of learning most of the material through the reading assignments. Class time is used in developing the analytical skills necessary to succeed in the course and on the Advanced Placement exam. All students are required to take the Advanced Placement exam in the spring of the year.

994 AP Comparative Government and Politics (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required

Note: this course fulfills the World History or Social Studies requirement

Students compare different political systems around the world in order to gain an understanding of the diversity of political life, policy, and policy outcomes. Political systems are compared at the structural, institutional and behavioral levels. Other important themes include modernization, democratization and globalization. The six countries that form the core of the AP Comparative Government and Politics course are: China, Great Britain, Iran, Mexico, Nigeria and Russia. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of learning most of the material through the reading assignments. Class time is used in developing the analytical skills necessary to succeed in the course and on the Advanced Placement exam. All students are required to take the Advanced Placement exam in the spring of the year.

912 US History (full year, 1 credit)

Grade 10

Students engage in a chronological historical survey of the United States from the Civil War era to the contemporary period. Students will explore ongoing themes and issues in US history through the examination of both primary and secondary sources. Students will discuss, debate, and analyze historical information both independently and collaboratively.

991 AP US History (full year, 1 credit)

Grade 10

Prerequisite: department approval required

This is a college-level survey of the American people and their political, social, economic, intellectual, and cultural heritage and institutions from the colonial era to the contemporary period. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of daily reading assignments. Class time is used in developing the analytical skills necessary to succeed in the course and on the Advanced Placement exam. Emphasis is placed on critical and evaluative thinking skills, essay writing, interpretation of original documents, and historiography. The primary means of instruction in the course will be discussion, although there will also be some lecture, simulation, individual and group presentations, and debate. Students can expect nightly homework, primarily reading. All students are required to take the Advanced Placement exam in the spring of the year.

ECO 210 Microeconomics (Marymount University Dual Credit (3 college credits); fall semester, ½ credit)

Prerequisite: IB Economics, IB Math SL, any AP level math class, Calculus Applications, or Precalculus; department approval required.

Note: Dual credit allows eligible seniors in strong academic standing to fulfill a high school academic requirement while simultaneously earning college credit for the course. This course is taught on Holy Cross campus during the school day by Holy Cross faculty members who have achieved adjunct faculty status at Marymount. Dual credit students have access to the Marymount Library. Marymount bills and enrolls the accepted student directly (\$360 per course). These credits may be transferable to other colleges and universities, depending upon the school and its policies.

Principles of Microeconomics is an introductory college level course that teaches the fundamentals of microeconomics – including the market mechanism of supply and demand, market structures, market failures including monopoly power and externalities, resource markets, and the theory of the firm. Students will apply microeconomic principles to current topics such as minimum wage legislation, farm subsidies, rent controls, pollution, welfare programs, and the trade-off between equity and efficiency.

934 Economics (spring semester, ½ credit)

Grades 11-12

Students study the economic choices they confront daily through a combination of practical problems, scientific analysis, and political philosophy. In addition, students analyze related topics, including economic systems and the role of government, market structures, environmental externalities, fair trade, labor economics, and unemployment, poverty, economic growth, business cycles, and monetary policy.

938 American Legal Systems (fall or spring semester, ½ credit)

Grades 11-12

This course provides students with an understanding of the law and legal principles as used in everyday situations, emphasizing both legal rights and responsibilities. Students will learn to evaluate, analyze and determine outcomes for legal issues and disputes. This course begins with an introduction to our constitutional government and the court system, including Maryland (state) law and federal courts and continues with an intensive study of criminal law and procedure, juvenile justice, and individual rights. Students prepare for and conduct a mock criminal or civil trial as a final project.

901 Modern World History (full year, 1 credit)

Grades 11-12

Note: this course fulfills the World History or Social Studies requirement

Modern World History is a chronological historical survey course of the major political, economic, social, and cultural events from the Enlightenment to the contemporary era. Student will explore ongoing themes and issues through primary and secondary sources. They will discuss and debate historical information and participate in simulations and activities to understand the complexity of world history.

981 IB Economics SL (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this course fulfills the World History or Social Studies requirement

Economics is a social science that focuses on human behavior – specifically how individual and collective decisions are made within groups, nations or societies regarding the allocation of scarce resources among competing uses. Because there are different sets of assumptions regarding “rational” human behavior, there are different schools of thought within the field of economics. IB Economics includes microeconomics, macroeconomics, international economics, and development economics. The course is taught from the free-market perspective, including both neoclassical and neo-Keynesian economics, providing the student with an understanding of the basic principles of Western economic thought that will serve as the foundation for future studies in economics. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of daily reading assignments.

979 IB History HL I: Authoritarian States and Twentieth Century Wars (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required

Note: this course fulfills the World History or Social Studies requirement

Note that this course is the prerequisite to 983 IB History HL II.

This course will cover the rise of authoritarian states throughout Europe and Asia with in-depth studies on the domestic and foreign policy of several nations, such as, but not limited to Germany, Italy, and China. Causes of territorial expansion around the world, the role of ideology, and international responses to these authoritarian states will be evaluated. Additionally, the economic and territorial causes for warfare, along with changes in military theory and technology, in addition to the impact of wars on Europe and Asia will be thoroughly analyzed. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of daily reading assignments. All students are required to take the IB Exam for the HL (higher level) course at the end of the second year.

983 IB History HL II/SL: Authoritarian States and Twentieth Century Wars (full year, 1 credit)

Grade 12 for HL II; Grade 11 or 12 for SL

Prerequisite: For HL II, HL I and departmental approval is required; for SL, departmental approval is required.

Note: this course fulfills the World History or Social Studies requirement

Note: because of a shared curriculum, this course is co-seated with IB History SL

This course will cover the rise of authoritarian states throughout Europe and Asia with in-depth studies on the domestic and foreign policy of several nations, such as, but not limited to Germany, Italy, and China. Causes of territorial expansion around the world, the role of ideology, and international responses to these authoritarian states will be evaluated. Additionally, the economic and territorial causes for warfare, along with changes in military theory and technology, in addition to the impact of wars on Europe and Asia will be thoroughly analyzed. This rigorous course requires excellent reading, comprehension, and writing skills in order to succeed. Students must be willing to be independent learners and take on the responsibility of daily reading assignments. All students are required to take the IB Exam for the HL (higher level) course at the end of the second year.

MATHEMATICS

Chair: Cindy Posluszny

4 credits required

The Mathematics Department of The Academy of the Holy Cross is committed to providing a curriculum in Mathematics which will enable each student to attain success at her highest potential level of achievement by offering a variety of courses in each subject. The department aims to build a solid foundation for a student's future work in Mathematics, not only in college but throughout her life, by developing her sense of numeracy and her appreciation for the many applications of Mathematics in all aspects of her life. Students are expected to strive for mastery of concepts as well as to attain the skill to apply those concepts accurately. Critical thinking skills are emphasized throughout the curriculum. Use of graphing calculators is incorporated in all courses as a supplemental tool to develop students' mathematical capabilities. Students are supported in their endeavors by the faculty through Math Lab, regularly scheduled outside of class help sessions.

Course Offerings 2017-2018 (detailed descriptions follow):

Algebra I	Calculus Applications
Accelerated Algebra	AP Calculus AB
Geometry & Honors Geometry	AP Calculus BC
Algebra II & Honors Algebra II	AP Statistics
Trigonometry and Other Advanced Topics in Mathematics	IB Math Studies SL
Precalculus	IB Math SL I & SL II

412 Algebra I (full year, 1 credit)

Grade 9

Students begin with a fast-paced review of arithmetic topics including order of operations, absolute value, and operations with rational numbers. Major topics include algebraic expressions, linear equations and inequalities in one variable, functions, exponents, polynomials, factoring, quadratics, radicals, and rational functions. Graphing skills are developed and utilized throughout the entire curriculum. Students apply algebraic skills to problem solving in all units of study.

413 Accelerated Algebra (fall semester, 1 credit)

Grade 9

Prerequisite: departmental recommendation

Note: concurrent enrollment in Geometry or Honors Geometry required

Students cover the second semester of Algebra I and will graph linear equations, systems of equations, and linear inequalities in two variables; solve systems of equations algebraically; simplify expressions using the properties of exponents; factor polynomials using a variety of techniques; graph and solve quadratic equations; simplify radical and rational expressions; and solve radical equations. Particular emphasis is placed upon applying algebraic skills and analytical thinking to problem solving.

414 Geometry (full year, 1 credit)

Grades 9-10

Prerequisite: Algebra I or concurrent enrollment in Accelerated Algebra

Students study the properties, measurements, and relationships of points, lines, angles, planes, and solids. Major topics covered include parallel lines and planes, congruent triangles, quadrilaterals, similarity, trigonometry with right triangles, circles, areas and volumes, and coordinate geometry. Students work with proofs and apply algebraic skills to the study of geometry throughout the course.

452 Honors Geometry (full credit, 1 credit)

Grades 9-10

Prerequisite: Algebra I and department approval required

Students study the properties, measurements, construction, and relationships of points, lines, angles, planes, and solids. Topics covered include parallel lines and planes, congruent triangles, quadrilaterals, similarity, trigonometry with right triangles, circles, areas and volumes, and coordinate geometry. Students engage in analytical thinking and problem solving, develop and write formal proofs, and apply algebraic principles to the study of geometry throughout the course.

416 Algebra II (full year, 1 credit)

Grades 9-11

Prerequisite: Geometry or Honors Geometry

Students work with sets, real number properties, linear and quadratic equations and inequalities, absolute value equations and inequalities, systems of equations and inequalities in two and three variables, polynomials, the complex number system, sequences and series, radical functions, rational functions, exponential functions, and logarithms. Graphing and problem solving are emphasized in each unit.

455 Honors Algebra II (full year, 1 credit)

Grades 9-11

Prerequisite: Geometry or Honors Geometry and department approval required

Students work with linear and quadratic equations and inequalities, absolute value equations and inequalities, polynomial, rational, exponential and logarithmic functions, radical functions, the complex number system, data analysis, and analytic geometry. Students also study sequences and series, conic sections, and probability. Graphing is emphasized in each unit. Students engage in analytical thinking and problem solving.

432 Trigonometry and Other Advanced Topics in Mathematics (full year, 1 credit)

Grade 12

Prerequisite: Algebra II and department recommendation

Students will study right triangle and circular trigonometry in the first semester. Topics covered include periodic functions, radian measure of angles, graphs of trigonometric functions, trigonometric identities and equations, and Laws of Sines and Cosines. In the second semester students will study topics including probability and statistics, mathematics of finance, and networks.

429 Precalculus (full year, 1 credit)

Grades 9-12

Prerequisite: Algebra II or IB Math Studies SL and department recommendation

Students study right triangle and circular trigonometry from both analytical and graphical perspectives. Topics covered include trigonometric identities, trigonometric graphs, trigonometric equations, Laws of Sines and Cosines, vectors, and complex numbers. Additional topics include exponential and logarithmic functions, conic sections, and probability and statistics. Students engage in analytical thinking and problem solving.

454 IB Math SL I (full year, 1 credit)

Grades 10-12

Prerequisite: Algebra II, Honors Algebra II, or IB Math Studies and department approval required.

Students need not be IB Diploma Candidates to enroll in this course.

Students will study functions including quadratic, exponential, logarithmic, and trigonometric. Other topics covered include conics, vectors, polar coordinates and polar graphs, parametric equations, and introductory statistics. Students will begin their study of calculus with an introduction to limits and derivatives. Students will complete a mathematical research paper exploring an approved topic. This is an advanced level course designed to prepare students to take AP Calculus AB, AP Calculus BC, or IB Math SL II.

421 Calculus Applications (full year, 1 credit)

Grades 11-12

Prerequisite: Precalculus or IB Math SL I

Note: students completing IB Math Studies SL may not enroll

Students begin by reviewing algebraic techniques that will be utilized in the course. The study of calculus begins with an introduction to limits and then the derivative. Students learn a variety of techniques for calculating derivatives, and then apply these skills to problems from business, economics, and science. Trigonometric, exponential, and logarithmic functions are included in each area of study. Applications of the derivative include graphing, optimization problems, and related rates. The emphasis is on skills and applications, with less emphasis on theory. Students are also introduced to integration and some simple applications at the end of the course.

423 AP Calculus AB (full year, 1 credit)

Grades 10-12

Prerequisite: IB Math SL I or Calculus Applications and department approval required

Students master the theoretical concepts and practical applications of analytical geometry, limits, functions, the differential and integral calculus of single variable functions. The course follows the AB Calculus syllabus as determined by the College Board. All students are required to take the Advanced Placement exam in the spring of the year.

424 AP Calculus BC (full year, 1 credit)

Grades 11-12

Prerequisite: IB Math SL I or IB Math SL II and department approval required

Students master the theoretical concepts and practical applications of analytical geometry, limits, functions, the differential and integral calculus of single variable functions, vectors, sequences and series, and Taylor polynomials. The course follows the BC Calculus syllabus as determined by the College Board. All students are required to take the Advanced Placement exam in the spring of the year.

458 AP Statistics (full year, 1 credit)

Grades 11-12

Prerequisite: IB Math Studies or Precalculus and department approval; this course can be taken concurrently with another mathematics course.

Students will study topics in descriptive and inferential statistics including analysis of data, regression analysis, and hypothesis testing. Students will use computers and graphing calculators. The course follows the AP Statistics syllabus as determined by the College Board. All students are required to take the Advanced Placement exam in the spring of the year.

481 IB Math Studies SL (full year, 1 credit)

Grades 11-12

Prerequisite: Algebra II or Honors Algebra II; department approval required for non-IB Diploma Programme candidates

Note: students who have completed Precalculus or IB Math SL I may not take this course.

Students will master concepts associated with functions, probability, geometry, trigonometry, statistics, financial math, and introductory calculus and their applications. The course follows the IB Math Studies syllabus as determined by the International Baccalaureate Organization.

483 IB Math SL II (full year, 1 credit)

Grades 11-12

Prerequisite: IB Math SL I or Calculus Applications; department approval required for non-IB Diploma Programme candidates

Students will be expected to master the theoretical concepts and practical applications of differential and integral calculus of single variable functions. Students will explore derivatives and integrals graphically, analytically, and numerically. Students will explore different solution techniques and will share and justify the approaches to the class. The course follows the IB Math SL syllabus as determined by the International Baccalaureate Organization.

PERFORMING ARTS

Chair: Laura Meehan

½ credit required

The Performing Arts Department is dedicated to utilizing the arts as a tool to help students further develop into young women of courage, compassion, and scholarship. While participating in classes in the areas of music, dance, theatre, film, and public speaking, students build confidence, foster creativity and intellectual curiosity, and discover the importance of teamwork, responsibility, initiative, maturity, dedication, and a range of other values that will eventually lead them to succeed not only in the arts, but also in any field they choose to pursue.

For information regarding our extracurricular opportunities, please visit the Arts section of the website.

Course Offerings 2017-2018 (detailed descriptions follow):

MUSIC COURSES:

Madrigal & Honors Madrigal Singers
Glee Choir
Guitar Seminar
Instrumental Ensemble

FILM & THEATRE COURSES:

Technical Theatre
Film Studies
Introduction to Acting
IB Theatre HL I & HL II
IB Film HL I & HL II
IB Film SL
Public Speaking

DANCE COURSES:

Jazz/Hip-Hop I & II
Modern Dance I
Musical Theatre Dance
IB Dance SL I & SL II

MUSIC

512 Madrigal Singers (full year, 1 credit)

Grades 10-12

Prerequisite: audition and department approval required

Note: this is an ensemble class and may be taken in multiple semesters

Students study, rehearse, and perform choral music in an advanced ensemble. They explore advanced vocal techniques in both solo and ensemble settings, and they interpret music from all major musical eras, including music in foreign languages as well as contemporary music. The group performs publicly many times throughout the year, including at school liturgies and other functions. Attendance at these events is mandatory for all students in this class.

514 Honors Madrigal Singers (full year, 1 credit)

Grades 11-12

Prerequisite: two semesters of Madrigal Singers

Note: this is an ensemble class and may be taken in multiple semesters

Students study, rehearse, and perform choral music in an advanced ensemble. In addition, these students are leaders in the ensemble, and mentors for their younger peers. They explore and model advanced vocal techniques in both solo and ensemble settings. They interpret music from all major musical eras, including music in foreign languages as well as contemporary music. The group performs publicly many times throughout the year, including at school liturgies and other functions. Attendance at these events is mandatory for all students in this class.

526 Glee Choir (fall or spring semester, ½ credit)

Grades 9-12

Note: this is an ensemble class and may be taken in multiple semesters

Students study, rehearse, and perform vocal music in both contemporary and traditional styles. They explore singing fundamentals in both solo and group settings. They develop skills in sight-reading music, and they describe and interpret a variety of songs and other musical numbers. Each semester students participate in public performances, and attendance at these events is mandatory.

523 Guitar Seminar (fall or spring semester, ½ credit)

Grades 9-12

Note: this is an ensemble class and may be taken multiple semesters

Students of all ability levels study, rehearse, and perform various solo and guitar ensemble music. Students will master reading music for guitar in the first position, basic, intermediate, and advanced chord shapes, and music theory as applies to the fretboard. In addition, students will become familiar with strumming patterns, fingerpicking techniques, and soloing. Performance will be a required element of this course, with additional group and solo performance opportunities throughout the year at liturgies and other events. No prior knowledge of guitar is required for this course, however, more experienced guitarists will have additional performance opportunities and will tackle more challenging repertoire for performance. Each semester students participate in public performances, and attendance at these events is mandatory.

521 Instrumental Ensemble (fall or spring semester, ½ credit)

Grades 9-12

Note: This is an ensemble class and may be taken multiple semesters.

Students study, rehearse and perform band and orchestra music in both contemporary and traditional styles. They reinforce fundamentals of their instrument in both solo and ensemble settings. They develop skills in sight-reading music, playing with expressive dynamics, and they describe and interpret a variety of songs and other musical numbers. Each semester students participate in public performances, and attendance at these events is mandatory.

FILM AND THEATRE

531 Technical Theatre (fall or spring semester, ½ credit)

Grades 9-12

This course is an introduction to the design and production processes of the various technical elements that make up a theatrical production. Students explore the areas of scenery, costumes, properties, lighting, sound, and effects through various projects, and they provide design and production support during class time to the Performing Arts Department's extracurricular productions. No previous backstage experience is required.

528 Film Studies (fall or spring semester, ½ credit)

Grades 9-12

Students will gain an appreciation for the complex and powerful art form of film. Throughout the semester, students will watch and analyze films from a wide variety of genres and filmmaking traditions, study the film history and theory behind those traditions, and ultimately build on this foundation through hands-on film-making projects. No prior filmmaking experience is necessary.

544 Introduction to Acting (fall or spring semester, ½ credit)

Grades 9-12

Students gain a better understanding of the art and craft of acting, both as a performer and audience member. Over the course of the semester, students will explore various acting processes related to physical and vocal awareness, development of the imagination and senses, observation and spatial awareness, collaboration in ensemble and group work, and independence in solo work and reflection. Course work includes scenes, monologues, memorization techniques, and improvisation.

581 IB Theatre HL I (full year, 1 credit)

Grade 11

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course

IB Theatre HL I is the first year of a two-year course in which students work to gain an advanced understanding of and appreciation for theatre contexts, theatre processes, and presenting theatre. Through in- and out-of-class projects, students face head-on the challenges and joys of creating theatre. Over the course of the year, students also learn to document and reflect on their own progress as young theatre practitioners through their IB Theatre journal. All students who continue on to the second year of the course are required to complete four IB assessments for this course at the end their second year.

582 IB Theatre HL II (full year, 1 credit)

Grade 12

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

IB Theatre HL II is the continuation of a two-year course during which students continue to study theatre contexts, theatre processes, and theatre presentations. Students continue to face the challenges and joys of creating theatre head on, as well as continue to reflect and document their own progress as young theatre practitioners. IB Theatre HL II culminates in the submission of four assessments required by the IB Organization. Students who enroll in this course are required to take the IB exam at the end of the year.

586 IB Film SL (full year, 1 credit)

Grade 11, 12

Prerequisite: department approval required for non-IB Diploma Programme Candidates

Note: this is a one-year IB class

IB Film SL is a one-year course in which students gain a thorough appreciation and understanding of film as a complex and powerful art form, and develop the technical and practical knowledge required during various film production processes. Over the course of the year, students will demonstrate skills and knowledge related to film language and analysis, film theory and history, and film production processes; students who register for the IB exam in May (optional for SL courses) will submit three assessments to the IB Organization, each of which focuses primarily on one area of the course. No previous experience with film is necessary.

583 IB Film HL I (full year, 1 credit)

Grade 11

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course

IB Film is a two-year course in which students gain an advanced understanding of film as a complex art form, as well as the technical and practical knowledge required during various filmmaking processes. Over the two-year course, students will demonstrate advanced skills and knowledge relating to film language and analysis, film theory and history, and film production. In the spring of their second year, the course culminates with the submission of three IB assessments, one in each of the respective areas of the syllabus. With a special emphasis placed on experiencing a variety of filmmaking traditions, this course promotes an understanding of how people create art, tell stories, and communicate, not only in the United States, but also in other countries and cultures around the world.

584 IB Film HL II (full year, 1 credit)

Grade 12

Prerequisite: IB Film HL I and department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

IB Film HL II is the continuation of a two-year course, which culminates in the spring with the submission of three IB assessments, one in each of the respective areas of the IB Film syllabus (film history and theory, film language and analysis, and film production). Students who enroll in this course are required to take the IB exam at the end of the year.

**541 Public Speaking (fall or spring semester, ½ credit; also available in summer intersession, ½ credit)
Grades 10-12**

Please note that this course is required for all Madeleva Scholars who are not IB Diploma candidates.

Prerequisite: English I

Students learn how to be effective communicators by studying, writing, and performing persuasive, entertaining, and informative speeches. In addition, students will explore rhetoric in society and learn to become critical listeners.

Public Speaking is also offered during the summer and may be used to fulfill a ½ credit of the Elective graduation requirement. Students may choose to take this summer course in order to allow additional elective options in their schedule or to complete a requirement for the Madeleva Scholars program. There is an additional fee associated with enrolling in this course during the Summer Intersession. Please see the Assistant Principal for Academics if you are interested in enrolling in this course.

DANCE

**564 Jazz/Hip-Hop I (fall or spring semester, ½ credit)
Grades 10-12**

Note: students must provide their own dance attire

Note: this is an ensemble class and may be taken multiple semesters

Students spend equal time studying jazz and hip-hop dance, mastering basic movement, vocabulary, and dance technique for each style. Each semester, students participate in public performances; attendance at these performances is mandatory. **Additional fees for costume-related items may apply.**

**566 Jazz/Hip-Hop II (fall or spring semester, ½ credit)
Grades 10-12**

Prerequisite: Department approval required

Note: students must provide their own dance attire

Note: this is an ensemble class and may be taken multiple semesters

Students continue their study of jazz and hip-hop dance, mastering more advanced movement, vocabulary, and technique for each style. Each semester, students participate in public performances; attendance at these performances is mandatory. **Additional fees for costume-related items may apply.**

**569 Modern Dance (fall or spring semester, ½ credit)
Grades 9-12**

Note: students must provide their own dance attire

Note: this is an ensemble class and may be taken multiple semesters

Note: this course is co-seated with IB Dance SL I

This is a beginning course in modern dance designed to increase the movement vocabulary of the beginning dance student. It includes stretching, technical work and composition, and emphasizes energy contrasts, contraction and release, correct alignment, and musicality. Students participate in public performances, and attendance at these performances is mandatory. **Additional fees for costume-related items may apply.**

**562 Musical Theatre Dance (fall or spring semester, ½ credit)
Grades 9-12**

Note: students must provide their own dance attire

Note: this is an ensemble class and may be taken multiple semesters

Students learn basic movement, vocabulary, and technique most closely associated with musical theatre dance (including tap). No formal dance training or experience is required to be successful in this class. Each semester, students participate in public performances; attendance at these performances is mandatory. **Additional fees for costume-related items may apply.**

**587 IB Dance SL I (full year, 1 credit)
Grade 11**

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course

Note: this course is co-seated with Modern Dance

Students gain an advanced appreciation and understanding of the powerful and expressive art of dance. Over the two-year course, students will demonstrate advanced skills and knowledge relating to dance composition and analysis, world dance studies, and dance performance, culminating in the spring of the second year with the submission of three IB assessments, one in each of the respective areas of the syllabus. While special emphasis is placed on investigating a variety of dance forms and processes, this course promotes an understanding of how people across times and space have used their bodies to express their emotions, stories, and ideas.

588 IB Dance SL II (full year, 1 credit)

Grade 12

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

In the second year of IB Dance, students build on the foundations gained in IB Dance SL I and work toward successful completion of three IB assessments, one in each of the respective areas of the syllabus (dance analysis and composition, world dance studies, and dance performance).

PHYSICAL EDUCATION AND HEALTH

Chair: Cheryl King

1½ credits required

Required courses: Physical Education I (½ credit), Physical Education II (½ credit), & Health (½ credit)

The Physical Education and Health Department strives to educate through purposeful physical activity and by teaching strategies for the development of optimal health. We center our instructional program on improving our students' physical, mental, emotional, and social health.

Course Offerings 2017-2018 (detailed descriptions follow):

Health	Introduction to Sports Medicine
Physical Education I: Team Sports	
Physical Education II: Lifetime Fitness	Physical Education – Summer Course
Physical Education III: Personal Fitness	

601 Health (fall or spring semester, ½ credit)

Grade 9

Students discuss current adolescent issues and practices that affect social, mental, and physical well-being. Topics include self-esteem, body image, eating disorders, nutrition, decision-making, conflict resolution, substance abuse, stress, anxiety, and teen depression. This course covers skills and techniques that can be used to achieve lifelong health and overall well-being.

602 Physical Education I: Team Sports (fall or spring semester, ½ credit)

Grades 9-10

Students learn the skills necessary to participate in a variety of team sports, as well as the rules that govern them. Units in PE I include soccer, basketball, flag football, volleyball, handball, and Ultimate Frisbee. Participation in fitness-related activities such as aerobics, recreational, and cooperative games is part of the class as well.

621 Physical Education II: Lifetime Fitness (fall or spring semester, ½ credit)

Grades 10-11

Pre-requisite: Physical Education I

This course focuses on the five components of fitness. Students will self-assess these components and track their improvements as they participate in recreational and physical fitness activities. They will develop good personal safety practices and learn self-defense techniques. In addition, students will learn the skills associated with two independent sports: golf and archery.

The following courses are elective and may not be used to fulfill Physical Education and Health graduation requirements:

641 Physical Education III: Personal Fitness (fall or spring semester, ½ credit)

Grades 11-12

Pre-requisite: Physical Education II

This course is a high level Physical Education course designed to focus on the five components of fitness. This is a conditioning program to improve cardiovascular fitness, flexibility, muscle strength, muscle endurance, and body composition. Students will record and track their improvement. Activities include, but are not limited to, yoga, Pilates, Zumba, strength training, choreographed aerobic routines, step, and power walking.

642 Introduction to Sports Medicine (fall or spring semester, ½ credit)

Grades 10-12

This course explores the physiology of exercise and nutrition. Students will develop an understanding and practical application of basic athletic training principles. Course includes both class work and practical hands-on application. Students will have the option to be certified in First Aid and CPR.

Physical Education Summer Intersession Course

The following course is offered during the Summer and may be used to fulfill the Physical Education I or Physical Education II graduation requirement, depending upon which of these the student has not yet completed. Students may choose to take this summer course in order to create additional elective options in their schedule, or to allow for an additional study hall period in one semester. There is a fee associated with enrolling in this course during the Summer Intersession. Please see the Assistant Principal for Academics if you are interested in enrolling in this course.

602/621 Physical Education (summer intersession, ½ credit)

Grades 9-11

Note that this summer course is offered only to incoming or current Holy Cross Students

Note that this course will satisfy the requirement for Physical Education I or Physical Education II

Students develop an understanding of the importance of life-long physical activity and create a personal fitness program. We discuss the importance of incorporating exercise into daily routine and partake in aerobics, weight training, and recreational and physical fitness activities that promote life-long health. Students learn the skills necessary to participate in a variety of sports (both team-based and independent), and study the five components of fitness.

SCIENCES

Chair: Christine Connor

3 credits required

Required courses: Biology (1 credit) and Chemistry (1 credit); one additional credit.

The remaining credit is elective within this department

The Science department at The Academy of the Holy Cross believes that students who study science can make informed decisions, are able to ask thoughtful questions, and can clearly communicate those questions and findings to those around them. Students come in contact with multiple science experiences that nurture and foster an increased curiosity and understanding of what they observe and investigate. They advance their ability to offer reasonable explanations, make predictions, and learn to respect nature and their environment. Science strengthens the skills they need to think effectively, objectively, and creatively.

Our students understand that science, technology, and society are interwoven and interdependent. They learn to:

- Use the major ideas of science in rational, creative thinking;
- Demonstrate competence and confidence in applying the knowledge, processes, and attitudes of science in making informed decisions;
- Use the process skills of observing, classifying, inferring, predicting, measuring, and communicating;
- Demonstrate an attitude of stewardship toward both the local and global environment and consider the ethical implications when applying scientific knowledge; and
- Demonstrate a willingness to re-evaluate existing ideas as a result of new information.

Course Offerings 2017-2018 (detailed descriptions follow):

Biology & Honors Biology

AP Biology

IB Biology HL

Chemistry & Honors Chemistry

IB Chemistry SL

Physics & Honors Physics

IB Physics HL I & HL II

AP Physics C Mechanics

IB Environmental Systems and Societies

Anatomy and Physiology

Honors Introduction to Engineering (*new in 2017-'18*)

803 Biology (full year, 1 credit)

Grade 9

This lab science course is designed to teach students the concepts and principles of biology. Students will develop a conceptual framework for modern biology and recognize unifying themes that integrate the major topics of life science. Students will engage in the scientific process, molecules and cells, cellular reproduction and genetics, evolution, ecology, and the form and function of animals. Laboratory activities stress the development of important skills such as detailed observation, accurate recording, and data interpretation and analysis.

852 Honors Biology (full year, 1 credit)

Grade 9

Prerequisite: department approval

This honors level science course is designed to teach students the concepts and principles of biology. Students will master a conceptual framework for modern biology and recognize unifying themes that integrate the major topics of life science. Students will participate in a thorough and in-depth investigation of the scientific process, molecules and cells, cellular reproduction and genetics, evolution, ecology, and the form and function of animals in an inquiry-based classroom. Laboratory activities stress the development of important skills such as detailed observation, accurate recording, experimental design, and data interpretation and analysis.

816 Chemistry (full year, 1 credit)**Grades 10-12*****Prerequisite: Biology***

Students study and perform laboratory experiments on topics including atomic theory, bonding, periodic properties, formula writing, equations, the mole concept, stoichiometry, kinetic molecular theory, solution chemistry, thermodynamics, chemical equilibrium, and acid/base chemistry. Word problems are extensively examined.

856 Honors Chemistry (full year, 1 credit)**Grades 10-12*****Prerequisite: Biology and department approval***

Students study matter, its classification and interactions. Topics include: atomic theory, bonding, periodicity, formula writing, equations, stoichiometry, kinetic molecular theory, solutions, thermodynamics, kinetics, equilibrium, and acids/bases. The Honors curriculum is focused to challenge the reasoning and analytical skills of responsible and academically motivated students. Experimental investigations are designed, analyzed, interpreted, applied, and communicated throughout the course.

817 Physics (full year, 1 credit)**Grades 11-12*****Co-requisite: Algebra II***

This laboratory course focuses on concepts and principles that explain many naturally occurring events in the world. Students develop strong problem-solving skills as they build an understanding of straight line and rotational motion, gravitation, momentum and energy, electricity, and magnetism. Presentation of concepts allows students to relate physics theory with real-world and laboratory experiences.

857 Honors Physics (full year, 1 credit)**Grades 11-12*****Prerequisite: Algebra II, Chemistry and department approval***

Students learn mathematical problem-solving skills by studying linear, two-dimensional, and circular motion. Through in-class discussion and hands-on laboratory experiments, students learn basic concepts in mechanical physics such as force, inertia, momentum, work and energy. Students are introduced to more advanced concepts in physics such as atomic structure, electricity, magnetism, and optics. Students are also introduced to selected topics in modern physics.

886 IB Physics HL I (full year, 1 credit)**Grade 11*****Prerequisite: Completion of Honors Algebra II and Honors Chemistry or Departmental Approval.***

Note: if enrollment minimum is not met, students will be co-seated with Honors Physics due to similarity in curriculum.

Note: this is the first year of a two-year IB course

The IB Diploma Programme physics higher-level course exposes students to this most fundamental experimental science, which seeks to explain the universe itself – from the very smallest particles to the vast distances between galaxies. Students develop traditional practical skills and techniques and increase facility in the use of mathematics, the language of physics. They also develop interpersonal skills as well as information and communication technology skills, which are essential in modern scientific endeavors – and are important life-enhancing, transferable skills in their own right. Students, moreover, study the impact of physics on society, the moral and ethical dilemmas, and the social, economic and environmental implications of the work of physicists. All students are required to take the IB exam for this course at the end their second year.

887 IB Physics HL II (full year, 1 credit)

Grade 12

Prerequisite Honors Physics and department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

This course focuses on understanding the concepts and solving problems in the areas of kinematics, dynamics, work/energy, momentum, circular motion and gravity, thermodynamics, static electricity, current electricity, magnetism, waves, light/optics, modern/nuclear physics, and climate energy. Students are required to master a level of understanding of the concepts equivalent to a college class. Students demonstrate skill with equipment used in the listed areas of physics and participate in hands-on laboratory activities and experiments related to the concept areas listed. They also demonstrate an understanding of real world applications of physics in the listed areas. All students are required to take the IB exam for this course.

855 AP Physics C Mechanics (full year, 1 credit)

Grades 11-12

Prerequisite: Honors Physics and department approval required

This course covers topics that include the translational and rotational quantities and concepts associated with statics, kinematics, dynamics/torque, circular motion, gravity, work, conservation of energy, conservation of momentum, universal law of gravity/orbits, and oscillations. The course will utilize guided inquiry and student-centered learning to foster the development of critical thinking skills. Students will perform hands-on labs to enhance their understanding of the concepts. Some calculus will be used in the course. All students are required to take the Advanced Placement exam in the spring of the year.

821 Anatomy and Physiology (full year or fall or spring semester, 1 or ½ credit)

Grades 11-12

Prerequisites: Biology and Chemistry

This rigorous elective science course includes a detailed study of many human body systems. Homeostatic balance, the relationship between structure and function, and the interrelationships between body systems are a focus throughout the course. Students will develop the skills of scientific inquiry while learning concepts through class presentations, labs, and case study analysis. Any student interested in learning about how her body works will benefit from taking this class.

854 AP Biology (full year, 1 credit)

Grades 11-12

Prerequisite: Biology or Honors Biology, Chemistry or Honors Chemistry and department approval

In this college-level course, students research cellular and molecular biology, biological systems and organisms, as well as ecological, evolutionary and behavioral biology. Students closely examine the unity and diversity of living organisms, the concept of evolution as an explanation of unity and diversity, homeostasis as a basic biological phenomenon, science as an on-going human experience, the collection, analysis and interpretation of data, and the application of biological principles and concepts to new situations, including those which involve humans and society. All students are required to take the Advanced Placement exam in the spring of the year.

880 IB Biology HL I (full year, 1 credit)

Grades 11-12

Prerequisite: Biology, Chemistry & department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course

This college level course provides students with opportunities for in-depth research and discovery. Students engage in discussions, case studies, and numerous laboratory investigations. Student inquiry and application of the scientific method are emphasized throughout the course, but especially in the interdisciplinary Group IV project, completed in the junior year. Four fundamental themes unify the topics covered: Structure and Function; Universality versus Diversity; Equilibrium of Systems; and Evolution. The major topics covered during this first year of the course are statistical analysis, chemistry of life, cells, genetics, molecular biology, evolution. All students are required to take the IB exam for this course at the end their second year.

882 IB Biology HL II (full year, 1 credit)

Grade 12

Prerequisite: IB Biology HL I and department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

This second year of the IB Biology HL course continues its emphasis on inquiry, problem solving, and laboratory investigations. Major topics covered during this year include Organism Diversity, Ecology, and Human Anatomy & Physiology. All students are required to take the IB exam for this course.

883 IB Environmental Systems and Societies SL (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required for non-IB Diploma Programme candidates

Note: additional fee required for Chesapeake Bay trip

This is a systematic survey of the dynamic relationship between society and the physical environment. The topics of globalization, population pressures, growth, and migration will be evident throughout as well as the ethics needed to make sound environmental decisions. With a focus on population, natural resources, environmental degradation, pollution, and conservation, students will study the interrelationships between environmental geography, ecology, human population and cultural dynamics, and resource geography. They will study the global evolution of environmental management policies, philosophies, and tools, which have developed in response to issues such as the distribution, utilization, and degradation of natural resources, such as water and petroleum. Students will examine the interrelationships between human activities and the climatic environment, emphasizing global climatic change. All students must participate in a 2½-day overnight data-collection activity with the Chesapeake Bay Foundation, giving them the opportunity to investigate a fragile ecosystem while working on their IB Internal Assessment.

884 IB Chemistry SL (full year, 1 credit)

Grades 11-12

Prerequisite: General Chemistry or Honors Chemistry and department approval required for non-IB Diploma Programme candidates

IB Chemistry SL focuses on student inquiry and application of the scientific method. This course includes one interdisciplinary project completed in collaboration with the other IB science courses taught at Holy Cross, as well as a combination of short- and long-term laboratory investigations performed throughout the year. The laboratory investigations for this course include the use of information and communication technology. The course requires the study of core topics (required by IB) and two optional topics (selected by the instructor). Core topics include quantitative chemistry, atomic structure, periodicity, bonding, energetics, kinetics, equilibrium, acids and bases, oxidation and reduction, organic chemistry, measurement, and data processing. Optional topics will be chosen by the teacher at the onset of the course.

842 Honors Introduction to Engineering Design (full year, 1 credit)

Grades 9-12

Prerequisite: Algebra 1

Note: while all students must complete both Biology and Chemistry, this course does satisfy the third credit of Science required for graduation. A freshman may co-enroll in Honors Introduction to Engineering Design and Biology. A sophomore may co-enroll in Honors Introduction to Engineering Design and Chemistry.

Note: This course satisfies the requirement of ½ credit in technology.

This is an honors level high school foundation course in the Project Lead the Way Engineering Program. Students are introduced to the engineering design process, applying math, science, and engineering standards to identify and design solutions to a variety of real problems. They work both individually and in collaborative teams to develop and document design solutions using engineering notebooks and 3D modeling software.

TECHNOLOGY

Chair: Dena Maye

½ credit required

We believe that at the intersection of technology and human values, true innovation occurs. By providing our students with the skills to achieve digital fluency, we are preparing them for a lifetime of creative and critical thinking. The Technology Department at The Academy of the Holy Cross strives to have students achieve an understanding of technology concepts, systems, and operations; develop a positive attitude towards using technology that supports collaboration, learning, and productivity; and model responsible digital citizenship. Through our course of study, students will engage in project-based learning to design websites, mobile apps, and other digital artifacts in order to develop the digital skills necessary for the 21st century workplace.

Course Offerings 2017-2018 (detailed descriptions follow):

Multimedia Journalism (*new in 2017-'18*)

Introduction to Computer Programming

IB Design Technology I and II

Technology Concepts and Applications

Student Tech Team

Yearbook

154 Technology Concepts and Applications (fall or spring semester, ½ credit)

Grades 9-12

This course will introduce students to the practical applications of technology in today's society. From learning about the history of technology and its innovators to gaining expert skills in the long line of Microsoft Office products, students will develop the technological skills necessary for success in today's academic and professional environments. In addition, they will explore a variety of applications, programs, and websites, on a variety of devices (including desktop computers, laptops, and other mobile devices). An important component of this course will urge students to address issues related to security, privacy, and ethics with a focus on digital citizenship.

158 Multimedia Journalism (fall or spring semester, ½ credit)

Grades 9-12

The Multi-Media Journalism course will merge the ever-changing field of journalism with interactive media production by combining practical application and hands-on experience. Opportunities to study broadcast journalism, technical writing, media broadcasting/editing, and desktop publishing will allow students to become experts in using a number of different technologies. The technical equipment which will be used in this course includes desktop computers, mobile devices, digital SLR/DSLR cameras, lavalier and boom microphones, tripods for cameras and other productional accessories (such as extension cords, batteries, chargers, miscellaneous cables/adaptors, headphones, and speakers), overhead projectors, digital voice recorders, as well as a diverse collection of online services and digital software. Through their hands-on experience with communicative technologies (including graphic design/layout, digital media and entertainment production, photo imagery and video editing, animation, and non-linear video editing), students will cultivate the skills necessary to create an original, student-produced morning news television program for the AHC community. In addition, a professional digital portfolio will be maintained by each student and will contain all media produced by the student throughout the course of the school year. This course will also place an emphasis on the value and importance of journalistic integrity. In a world that is steadily shifting from print to online journalism, students enrolled in the Multi-Media Journalism course will learn to appreciate the value of both as they engage and communicate with the world around them.

156 Introduction to Computer Programming (fall or spring semester, ½ credit)

Grades 9-12

This course utilizes the CodeHS introductory computer science curriculum, inspired by the methods and approaches of Stanford University's introductory Computer Science class. Through a series of learning modules, including video tutorials, quizzes, sample code, applied programming exercises, and programming challenges, students learn the fundamentals of computer science and are equipped with programming skills and knowledge that can be applied to the acquisition of other computer languages.

151 Yearbook (full year, 1 credit)

Grades 9-12

This course supports the creation, publication, and distribution of Holy Cross's yearbook, *Cross and Anchor*, a recipient of the Jostens National Yearbook Program of Excellence Award. Students will learn basic elements of design, layout, and photography, and will become familiar with Jostens' online editor, Yearbook Avenue. Students will also be responsible for photography, layout, and page spreads, as well as the promotion and distribution of the final yearbook. Units of study include teamwork, responsibility, brainstorming, content, coverage, concept, reporting, writing, headlines, captions, editing, photography, typography, design, graphics, finances, yearbook campaigns, advertising and distribution. Actual work results in the current volume of the school's yearbook. The publication strives to maintain a tradition of excellence in which the school and the community can take pride. Mastery of the goals and objectives fully verse staff members in all areas of publication production and provide students with a strong background in the field of journalism.

165 Student Tech Team (fall or spring semester, ½ credit)

Grades 10-12

Prerequisite: application and approval from the Instructional Technology faculty members

Students are invited to apply to join the Holy Cross student tech team to fulfill their technology credit. The student tech team will serve as the technology leaders in the school amongst their peers as well as the faculty and staff. They will explore the impact of technology in the classroom and come up with strategies to better leverage this impact. The student tech team will be responsible for producing technology how-to guides, organizing and managing an iPad help desk, and maintaining social media guidelines to support the use of instructional technology amongst their peers.

170 IB Design Technology SL I (full year, 1 credit)

Grades 11-12

This course introduces the design cycle – a fundamental concept underpinning the design process and central to a student's understanding of design activities. Each element of the design cycle represents how designers progress through the design process to refine the design solution in increasing detail. The course also focuses on the strategies that designers use to arrive at solutions to problems and the varied nature of the skills and knowledge they need to carry out their activities successfully. The skills used in the design cycle will be reflected in the Internal Assessment (IA) and reinforced throughout the course. The specific topics covered include Human Factors and Ergonomics, Resource Management and Sustainable Production, Modelling, Raw Materials to Final Production, and Innovation and Design. Student will have access to CAD software, a 3D printer, and 3D Pen to create prototypes of their designs. This is the first year of a two-year course.

172 IB Design Technology SL II (full year, 1 credit)

Grades 11-12

This course expands on the design process and teaches skills that enable students to reflect on the impacts of new designs and new technology on society and the environment around them. Students develop their own solutions to technological problems and, through collaboration and iteration, enhance those solutions. This course continues to focus on the strategies that Engineers might use to reach solutions to problems and the skills and knowledge needed to carry out their activities effectively. The specific topics covered in IB Design SL II include those examined in IB Design I, with the addition of User Centered Design, Sustainability, Innovation and Markets, and Commercial Production. Student will also have access to CAD software, a 3D printer, and 3D Pen to create prototypes of their designs. This is the second year of a two-year course.

THEOLOGY

Chair: Mary Martino

4 credits required

The Theology Department at The Academy of the Holy Cross works to guide students toward a deeper relationship with Jesus Christ. We seek to communicate a truly Christian worldview in which issues of today's challenging environment are seen in the light of eternity. With a firm foundation in sacred scripture and sacred tradition as outlined by the United States Conference of Catholic Bishops, we challenge students to draw connections, build community, serve the marginalized, and choose the good freely and with joy.

Course Offerings 2017-2018 (detailed descriptions follow):

Revelation of Jesus & Honors Revelation of Jesus	IB World Religions SL with Catholic Seminar
The Blessed Trinity & Honors Blessed Trinity	Church History and Honors Church History
Paschal Mystery & Honors Paschal Mystery	Justice and Faith
Ecclesiology & Honors Ecclesiology	Ecumenical and Interreligious Issues
Sacraments & Honors Sacraments	Religions of the World (<i>Marymount University – new in 2017-'18</i>)
Moral Theology & Honors Moral Theology	World Religions (<i>new in 2017-'18</i>)

721 Revelation of Jesus (fall semester, ½ credit)

Grade 9

Students will gain a general knowledge and appreciation of the sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. Students will learn about the Bible, authored by God through inspiration, and its value to people throughout the world. Students will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. Students will pay particular attention to the Gospels, where they may grow and love Jesus Christ more personally.

761 Honors Revelation of Jesus (fall semester, ½ credit)

Grade 9

Prerequisite: department approval required

Students gain a general knowledge and appreciation of the sacred Scriptures. Through their study of the Bible, they will come to encounter the living Word of God, Jesus Christ. In the course, they will learn about the Bible, authored by God through inspiration, and its value to people throughout the world. Students will learn how to read the Bible and will become familiar with the major sections of the Bible and the books included in each section. Students will pay particular attention to the Gospels, where they may grow and love Jesus Christ more personally. This course includes presentations and research projects that promote an in-depth study of the sacred Scriptures.

741 The Blessed Trinity (spring semester, ½ credit)

Grade 9

Students are introduced to the mystery of Jesus Christ, the living Word of God, and the second person of the Blessed Trinity. Students will understand that Jesus Christ is the ultimate Revelation to us from God. In learning about who he is, students will also learn who he calls them to be. Students will study chastity and examine the Catholic teachings on sexuality, based on the teachings of Jesus Christ.

781 Honors Blessed Trinity (spring semester, ½ credit)

Grade 9

Prerequisite: department approval required

The purpose of this course is to introduce students to the mystery of Jesus Christ, the living Word of God, the second person of the Blessed Trinity. In this course, students will understand that Jesus Christ is the ultimate revelation to us from God. In learning about who he is, students will also learn who God calls them to be. This course will include advanced studies of the Blessed Trinity and Mary. Students will also study chastity and examine the Catholic teachings on sexuality, based on the teachings of Jesus Christ.

722 Paschal Mystery (fall semester, ½ credit)

Grade 10

Students will come to understand all God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails.

762 Honors Paschal Mystery (fall semester, ½ credit)

Grade 10

Prerequisite: department approval required

Students will come to understand all God has done for us through his Son, Jesus Christ. Through this course of study, students will learn that for all eternity, God has planned for us to share eternal happiness with him, which is accomplished through the redemption Christ won for us. Students will learn that they share in this redemption only in and through Jesus Christ. They will also be introduced to what it means to be a disciple of Christ and what life as a disciple entails. This course will include an advanced, detailed study of salvation history.

742 Ecclesiology (spring semester, ½ credit)

Grade 10

This course will help students understand that in and through the Church, they encounter the living Jesus Christ. They will learn how the Church was founded by Christ through the apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today and has both divine and human elements. In this course, students will learn about the sacred nature of the Church.

782 Honors Ecclesiology (spring semester, ½ credit)

Grade 10

Prerequisite: department approval required

This course will help students understand that in and through the Church they encounter the living Jesus Christ. They will learn how the Church was founded by Christ through the apostles and is sustained by him through the Holy Spirit. The students will come to know that the Church is the living Body of Christ today and has both divine and human elements. In this course, students will learn about the sacred nature of the Church. This course will include an in-depth study of the magisterium and major Church documents describing the inner and outer natures of the Church.

723 Sacraments (fall semester, ½ credit)

Grade 11

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

763 Honors Sacraments (fall semester, ½ credit)

Grade 11

Prerequisite: department approval required

The purpose of this course is to help students understand that they encounter Christ today in a full and real way in and through the Sacraments and especially through the Eucharist. Students will examine each of the Sacraments in detail as to learn how they may encounter Christ throughout life. This course includes presentations and research projects that promote an in-depth examination of the Sacraments.

743 Moral Theology (spring semester, ½ credit)

Grade 11

The purpose of this course is to help students understand that it is only through Christ that they can fully live out God's plan for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples. Students also discover that the response to the demands of Catholic moral life is met in serving the needs of others.

783 Honors Moral Theology (spring semester, ½ credit)

Grade 11

Prerequisite: department approval required

The purpose of this course is to help students understand that it is only through Christ that they can fully live out God's plan for their lives. Students will learn the moral concepts and precepts that govern the lives of Christ's disciples. This course includes presentations and research projects that promote an in-depth examination of Moral Theology. Students also discover that the response to the demands of Catholic moral life is met in serving the needs of others.

785 IB World Religions SL I/Catholic Seminars (full year, 1 credit)

Grade 11

Note: this course is open only to IB Diploma candidates and is the first year of a two-year IB course

Note: this course fulfills the World History/Social Studies requirement

This is an overview study of five world religions (Buddhism, Judaism, Christianity, Islam, and Taoism). Students will examine the historical development of each of these religions, their views on the human condition, where adherents of each of the religions see themselves going and how they plan to get there. This course will introduce the philosophical and anthropological approach to humanity's religious experience of the sacred. The Catholic seminars at the end of the quarters discuss the seven Sacraments and Catholic moral theology.

786 IB World Religions SL II/Catholic full year, 1 credit)

Grade 12

Prerequisite: IB World Religions SL I/Catholic Seminar

Note: this course is open only to IB Diploma candidates and is the second year of a two-year IB course

Note: this course fulfills the World History/Social Studies requirement

This is a continuation of the in-depth study of five world religions (Judaism, Buddhism, Christianity, Islam, and Taoism) that was begun in the junior year. Students will expand on the introduction they received and develop an in-depth understanding of two religions: Buddhism and Judaism. They will study rituals, sacred texts, doctrines and beliefs, the religious experience and ethics and moral conduct of adherents in both of these faiths. Additionally, students will complete their Internal Assessment, which is an investigative study of a world religion. The Catholic seminars at the end of the quarters discuss church history and ecumenical and interreligious issues.

704 Church History (fall semester, ½ credit)

Grade 12

By tracing the history of the Church from its founder, Jesus Christ, to the present, students learn that the Catholic Church of today developed directly from the Church founded by Christ. Student discover how the Church kept intact the Gospel message, developed its understanding of Christian doctrine over time, and spread this teaching throughout the world. As the history of the Church is traced, students learn the importance of the church in the history of the western world. They learn how it has influenced the development of culture, human values, and political rights throughout the entire world.

754 Honors Church History (fall semester, ½ credit)

Grade 12

Prerequisite: department approval required

Honors Church History students achieve the goals of the regular Church History course, but attain a deeper understanding of the concrete contributions of the Catholic Church to western civilization and the preservation of the Christian ethic in the contemporary world. Students also come to appreciate the complexities of political and social problems with which the Church has struggled through both millennia. This course strives to evaluate objectively the historical triumphs of the Church, and her failures. Honors Church History focuses on enlightening students to the need for all those within the Body of Christ to rely on God's wisdom and courage in order to avoid the pitfalls of the past, while trying to achieve Augustine's concept of the City of God on earth.

716 Justice and Faith (spring semester, ½ credit)

Grade 12

Students are introduced to the Church's social teaching and learn how Christ's concern for others, especially the poor and needy, is present today in the Church's social teaching and mission. Each student responds to current social conditions and promotes justice through serving the community in different ways.

733 Ecumenical and Interreligious Issues (spring semester, ½ credit)

Grade 12

The purpose of this course is to help students understand the manner in which the Catholic Church relates to non-Christians as well as other religions of the world. Building on the foundational truth that Jesus Christ established the Catholic Church and entrusted to her the fullness of God's revelation, the course is intended to help students to recognize the ways in which important spiritual truths can also be found in non-Catholic churches and ecclesial communities as well as in non-Christian religions. It is also intended to help them to recognize the ways in which other systems of belief and practice differ from the Catholic faith.

TRS 202 Religions of the World - Marymount University (Marymount University Dual Credit (3 college credits); fully year, 1 credit)

Grade 12

Prerequisite: department approval required.

Note: Dual credit allows eligible seniors in strong academic standing to fulfill a high school academic requirement while simultaneously earning college credit for the course. This course is taught on Holy Cross campus during the school day by Holy Cross faculty members who have achieved adjunct faculty status at Marymount. Dual credit students have access to the Marymount Library. Marymount bills and enrolls the accepted student directly (\$360 per course). These credits may be transferable to other colleges and universities, depending upon the school and its policies.

In this college course, ancient and modern religions are studied as varied responses to the search for ultimate meaning and purpose in human existence. Building on foundational knowledge of Christianity, students will explore indigenous religious traditions and major world religions. This year-long course integrates the academic study of religion with the Catholic practice of inter-religious dialogue, examining the histories, beliefs, rituals, and contemporary forms of Judaism, Christianity, Islam, indigenous religions, Hinduism, and Buddhism in a systematic, analytical, and empathetic way. The aim is to understand the contribution that each religion makes to the search for ultimate meaning and purpose in human existence.

784 World Religions (full year, 1 credit)

Grade 12

This year-long course surveys five major, international religions: Judaism, Christianity, Islam, Hinduism, and Buddhism. It integrates the academic study of religion with the Catholic practice of inter-religious dialogue, examining the histories, beliefs, rituals, and contemporary forms of these diverse religions in a systematic, analytical, and empathetic way. Our aim is to understand the contribution that each religion makes to the search for ultimate meaning and purpose in human existence. We will attempt to acquire a sense of what it is like to practice each of these religions and of how different religious identities constitute distinctive ways of living, seeing, and being in relation to others.

VISUAL ARTS

Chair: Brittney Stephenson

½ credit required

The Department of Visual Arts recognizes the importance of fostering our students' discovery of their artistic talents and abilities. We believe in developing our students' aesthetic awareness and confidence in art production by offering them the opportunity to master a broad range of artistic skills and exposing them to the history and cultural diversity of world art. Our approach to every course is integrative, relating what is learned in the art classroom to every subject in school.

We believe that art is vitally important to education and that it positively influences thinking and reasoning skills beyond the art studio. The most recent research in education has determined training in the arts to be essential to the development of deductive and associative reasoning as well as to creative thinking and innovative approaches to problem solving. Beyond that, we believe that the study of art enhances our students' understanding of culture, thereby enriching their lives.

Course Offerings 2017-2018 (detailed descriptions follow):

Studio Art I & II

IB Visual Arts SL I & SL II

Ceramics I & II

Graphic Design I & II (*new in 2017-'18*)

Photography I & II

011 Studio Art I (fall and spring semester, ½ credit)

Grades 9-12

Students enrolled in Studio Art I (formerly Art Fundamentals) will explore art history, the elements and principles of design, keep an investigative journal, and create artwork in the following areas: drawing, color theory and application, design, painting, mosaic, 3D forms, and craft. Either Studio Art I, Photography I, or Ceramics I may be used to fulfill the graduation requirement for Visual Arts.

012 Studio Art II (fall and spring semester, ½ credit)

Grades 9-12

Prerequisite: Studio Art I, Photography I, or Ceramics I

Students will build on experience gained in Studio Art I and have the opportunity to create artworks in a larger variety of drawing and painting mediums, while learning about the techniques, styles, and history of artists and artisans from around the world.

019 Ceramics I (fall and spring semester, ½ credit)

Grades 10-12

Note: Based upon enrollment, this course may be co-seated with Ceramics II

Students learn and apply the basic techniques involved in preparing clay (wedging) and various hand-building techniques, such as pinch, coil, slab, and drape. They maintain an investigative journal, create sculptural forms, and learn the art of glazing in a variety of ceramic projects. Either Studio Art I, Photography I, or Ceramics I may be used to fulfill the graduation requirement for Visual Arts.

021 Ceramics II (fall and spring semester, ½ credit)

Grades 10-12

Prerequisite: Studio Art I, Photography I, Graphic Design I, or Ceramics I

Note: Based upon enrollment, this course may be co-seated with Ceramics I

Students execute advanced techniques in ceramic art, focusing specifically on the techniques of wheel throwing and glazing. Students maintain an investigative journal, apply skills to perfect the technique of throwing on the potter's wheel, and enhance their hand building skills using a variety of clays and glazing techniques.

029 Photography I (fall and spring semester, ½ credit)

Grades 9-12

Note: students may use the digital camera on a 'phone or their iPad. Students are encouraged, but not required to have a digital camera capable of manual adjustments of ISO, aperture, and shutter speed

Note: Based upon enrollment, this course may be co-seated with Photography II

Students will learn the basics of operating a camera and working with Photoshop. They practice black and white and color photo techniques, balance, composition, depth of field, contrast, and design in photography. There will be frequent critical analysis of selected professional photographs, as well as the work of other students. Students will maintain an investigative journal and produce a portfolio of individual prints that demonstrate their experience with a variety of photographic modes of expression. Either Studio Art I, Photography I, or Ceramics I may be used to fulfill the graduation requirement for Visual Arts.

030 Photography II: Digital Photography (fall and spring semester, ½ credit)

Grades 9-12

Prerequisite: Photography I

Note: a digital camera capable of manual adjustments of ISO, aperture, and shutter speed is required

Note: Based upon enrollment, this course may be co-seated with Photography I

Students will expand upon their knowledge photography, the artistic use of digital photographs, and the expressive uses of Photoshop in enhancing and altering digital images. They will maintain an investigative journal and produce several series of prints exploring a single theme.

081/082 IB Visual Arts SL I and II (2 years, 2 credits)

Grades 11-12

Prerequisite: Studio Art I, Photography I, Graphic Design I, or Ceramics I

Note: students may enroll in two one-semester art electives, and one full-year of IB Visual Arts

Students will produce art observation journals that reflect their critical, visual, and written studies to support and inform their studio art work, and to address such issues as the part art plays in the world today, what part emotion and intellect play in art, and the role of the artist in society. Classroom discussion and independent research will place emphasis on themes, content, comparisons to other art forms (drawing, painting, photography, sculpture, and ceramics), and historical, social, and cultural influences. Investigation of techniques, and exploration of art from a variety of eras and societies, as well as comparison and interpretation of form, meaning, and context are used to encourage students to come to a broad-minded understanding of the significance of artistic expression to all people. Among topics studied will be the proper uses, imitation, and documentation of references to other people's artwork and a cautionary explanation of plagiarism as it relates to art. Students will be encouraged and also required to make visits to museums, galleries, and public displays of art throughout their two years as IB Visual Art students. Students in IB Visual Art undertake a comparative study, build a process portfolio, and curate their own exhibition of work.

050 Graphic Design I (fall and spring semester, ½ credit)

Grades 9-12

Note: Based upon enrollment, this course may be co-seated with Graphic Design II

Graphic design is the art of problem solving that blends art and technology together. Students will learn and apply the fundamentals of industry standard software applications (such as Illustrator and Photoshop). Students will be given challenging real-world projects and assignments typical of the graphic design industry. Classroom activities will include research and development, reading, projects, and problem solving. Students will work individually and in groups on assignments and projects. Course evaluation will consist of assignments, projects, quizzes and tests, in addition to oral and written research reports.

051 Graphic Design II (fall and spring semester, ½ credit)

Grades 9-12

Prerequisite: Graphic Design I

Note: Based upon enrollment, this course may be co-seated with Graphic Design I

Graphic Design II builds on the concepts introduced in Graphic Design I. Students will continue to explore the interaction between text and image. They will expand their understanding of visual communication through creative solutions to a series of realistic design problems. Students will continue to investigate contemporary design issues and graphic design history, as a vehicle to develop their own sense of style. In addition, they will expand their proficiency in all aspects of the design process, including brainstorming, conceptualizing, critical thinking, collaboration and presentation. Projects will be completed from concept to print and will incorporate the use of industry standard graphic design software such as Illustrator and Photoshop.

Prerequisite: Graphic Design I

WORLD LANGUAGES

Chair: Lourdes Orta

3 credits required; 2 of these must be in the same language

The members of the World Languages Department bring a world of languages and cultures to life in our classrooms through immersion, technology and media, and active use of authentic language. We believe that language empowers students to be curious about the world, to be lifelong learners, and to become vibrant members of a multi-lingual and multi-cultural world. We strive to empower our students to be knowledgeable global citizens by developing functional proficiency and intercultural understanding in a world language.

Course Offerings 2017-2018 (detailed descriptions follow):

French I	Latin I	Spanish I
French II	Latin II	Accelerated Spanish I
French III	IB Latin SL I	Spanish II & Honors Spanish II
French IV	IB Latin SL II	Spanish III
IB French SL		Spanish IV
IB French HL		IB Spanish SL
		IB Spanish HL
Language and Linguistics		

320 Language and Linguistics (full year, 1 credit)

Grades 11-12

Prerequisite: department approval required

From Viking runes to the Korean cultural norm of avoiding the first person, this course introduces students to aspects of linguistic theory and the history of world languages that will strengthen their ongoing study of English and apply to the acquisition of a second language. Throughout, language is studied not only as a system of form and meaning, with intriguing biological, psychological, cultural, and social aspects, but also as a discrete phenomenon with its own extraordinary, fascinating, and sometimes tragic history. Issues of language as they relate to cultural diversity and global understanding will be addressed. Students will study word analysis and etymology to deepen vocabulary skills.

FRENCH

311 French I (full year, 1 credit)

Grade 9

Note: this course is intended for students with little or no previous study of French

In this first-year course, students are immersed in French as they begin to acquire simultaneously the four basic skills of language study: understanding, speaking, reading, and writing. Each class simulates real life situations that reflect the diversity of Francophone cultures. A variety of activities is offered including original skits, watching and interpreting videos, listening, understanding and replying to audio stimuli, as well as doing many multi-faceted Internet-based activities that are both challenging and fun. They gain confidence as they increase their proficiency while working on projects in French such as their extraterrestrial stories and presentations, fashion show, skits on ordering in a café, shopping, and making hotel reservations.

312 French II (full year, 1 credit)

Grades 9-10

Prerequisite: French I or equivalent

In the second year of French, students continue their immersion in the language and culture as they develop the four basic skills. Students increase the scope of their vocabulary and structures as they expand communicating in French on various topics. Activities are communicative and proficiency-based. Students learn life skills in French such as reading, writing, and answering emails and business letters, and how to use French Internet sites to research and explore the French-speaking world. They make videos, books, posters, animations and presentations in French. There are many opportunities to increase their proficiency while working on projects such as their cooking videos, storybooks to talking about past events, Family Feud skits, and PowerPoint presentations about how they used to be and how they have changed.

315 French III (full year, 1 credit)

Grades 9-12

Prerequisite: French II or equivalent

Please note: this course is co-seated with IB French SL I

After two years of French in an immersion context, students will be using the language not only to perform basic tasks but also more complex tasks, requiring using more higher-order thinking skills. Students will read, discuss, and write about a variety of topics, making inferences through knowledge acquired from other subjects. Students are required to participate actively during class time and to read and research at home on the web in French. Students will continue practicing their written French by learning how to write a résumé, a business letter, and how to narrate a story.

316 French IV (full year, 1 credit)

Grades 10-12

Prerequisite: French III

Having immersed themselves in Francophone cultures for a few years, students have reached a level of proficiency that allows them to use the language to perform tasks requiring higher-order thinking skills. Students will discuss and write about interesting contemporary topics using knowledge gained in other subject areas in order to participate actively in class. Students will increase their proficiency by discussing reading selections of literary or journalistic prose by a variety of worldwide Francophone authors, as well as current event topics from French television channel *TV5*, role-playing, and analyzing advanced syntactic structures found in authentic sources. Written assignments will include a variety of tasks including writing various styles of letters, summaries, newspaper articles, reports, etc. Students expand their knowledge of the Francophone cultures using audio, video, and Internet-based sources. They will become proficient at using French Internet sites to do more extended research involving Francophone topics of interest, especially French and Francophone artists. They learn about modern art as they explore a certain artist in depth and present their information to the class.

381 IB French SL I (full year, 1 credit)

Grades 10-11

Prerequisite: French II and department approval required for non-IB Diploma Programme candidates

Please note: this course is co-seated with French III

Having immersed themselves in Francophone cultures for two years, students have now reached a level of proficiency that allows them to use the language to perform tasks requiring higher-order thinking skills. Students will discuss and write about interesting contemporary topics, using knowledge gained in other subject areas in order to participate actively in class. As part of the two-year IB program, they will continue to develop life skills by practicing many forms of writing that are testing on the IB exams such as: business letters, emails, articles, brochures, and research papers. They will become proficient at using French Internet sites to do more extended research involving Francophone topics of interest, especially French and Francophone artists. They learn about modern art as they explore a certain artist in depth and present their information to the class. They begin mastering French proficiency doing projects such as creating a webpage to promote a French-speaking celebration or event, developing a study abroad trip proposal and itinerary to a French-speaking country as they apply to be the study abroad director of their university, apply for funds and make a convincing argument to help a French-speaking country in need.

382 IB French SL II/HL I (full year, 1 credit)

Grades 11-12

Prerequisite: IB French SL I and department approval required for non-IB Diploma Programme candidates

Please note: this course is co-seated with IB French HL II

At this advanced level of language study, students continue to develop understanding, speaking, writing, and reading skills, as well as demonstrate heightened awareness of global issues and their impact on the French-speaking world. Immersed in the language, they will increase their proficiency by discussing reading selections of literary or journalistic prose, as well as current event topics from French television channel *TV5*, writing compositions, role-playing, and analyzing advanced syntactic structures found in authentic sources. Students explore literature and journalistic prose of the French-speaking world, reading works by a variety of worldwide Francophone authors. Students expand their knowledge of the Francophone cultures using audio, video, and Internet-based sources.

383 IB French HL II (full year, 1 credit)

Grade 12

Prerequisite: IB French HL I and department approval required for non-IB Diploma Programme candidates

*Please note: this course is co-seated with IB French **SL II/HL I***

This challenging advanced French class motivates students to continue to put into practice all linguistic skills acquired in previous classes. Students strive to heighten their awareness of global issues and the impact on the Francophone world. Immersed in the language, they discuss reading selections of literary or journalistic prose, write a variety of essays, role-play, and analyze advanced syntactic structures found in authentic sources. They read two books in French, and use their acquired French skills and knowledge of the French-speaking world, to analyze, critique, compare as well as consolidate and rebut information and arguments.

LATIN

301 Latin I (full year, 1 credit)

Grade 9

Note: this course is intended for students with little or no previous study of Latin

Students begin to develop a reading knowledge of Latin through examination of the nature and structure of the language. They learn basic Latin vocabulary and grammatical structures while reading about the famous city of Pompeii in the Cambridge Latin Course, an interactive textbook available on the iPad. Students study English derivatives and loan words, daily life in ancient Rome, the influence of Roman art and architecture, and the lasting cultural legacy of classical civilization.

302 Latin II (full year, 1 credit)

Grades 9-10

Prerequisite: Latin I or equivalent

Students increase their reading proficiency by learning additional vocabulary and grammatical structures and continue to study English derivatives and loan words. Students continue to use the Cambridge Latin Course while also being introduced to unadapted Latin of Roman authors. Student will continue to study Ancient Rome and its influence on Western Culture through readings and projects.

388 IB Latin SL I (full year, 1 credit)

Grades 10-11

Prerequisite: Latin II

In the third year of Latin, the culmination of two years of language study brings students face-to-face with the Roman past. Students read and study selections of the exuberant, impassioned verse of Catullus and the famous, mythological tales of Ovid. The culture and history of Rome reflected in these poems are examined and interpreted as well. Regular review of grammar and vocabulary, integrated with the poems read, will help students reinforce their understanding of the language. Students will learn figures of speech and scansion of Latin poetry. Students will also begin to prepare their Internal Assessment project, a research dossier, and prepare for the two IB papers with frequent sight translations and dictionary practice.

389 IB Latin SL II (full year, 1 credit)

Grades 11-12

Prerequisite: IB Latin SL I

This course will solidify the students' knowledge of Latin through an exploration of selections from the best well-known and most important of Rome's literary achievements, Vergil's epic poem, *The Aeneid*. To better understand to political motivation of this work, students will read Roman historians in Latin to enrich their reading of the *The Aeneid*. Students will study meter, figures of speech, diction, syntax, mythology, and the socio-political culture in which the poem arose. As with Latin III, regular review of grammar and vocabulary, integrated with the readings, will help students to reinforce their understanding of the language. In addition to completing their Internal Assessment, students will prepare for the two IB papers by reviewing Ovid and Catullus in the form of sight translation exams.

SPANISH

321 Spanish I (full year, 1 credit)

Grade 9

Note: this course is intended for students with little or no previous study of Spanish

In this first-year course, students are immersed immediately in Spanish as they begin to acquire the four basic skills: culture, speaking, reading, and writing. The language program simulates real-life scenarios that reflect the diversity of the many Spanish-speaking cultures. Varied activities that stimulate learning for all types of learners are used on a daily basis, such as producing skits, watching video segments, and listening to, understanding, and replying to auditory stimuli. Internet-based activities that are both challenging and fun will be incorporated into class. Active class participation is strongly encouraged.

329 Honors Spanish I (full year, 1 credit)

Grade 9

Prerequisite: Holy Cross language placement test and middle school records

In an immersion environment, students will cover the same material as Spanish I but will move at a more accelerated pace with additional activities to empower language learning. The four basic language skills will be developed simultaneously: understanding, speaking, reading, and writing. The classroom environment simulates real-life scenarios that reflect the diversity of the many Spanish-speaking cultures. Varied activities that stimulate learning for all types of learners are used on a daily basis, such as producing skits, watching video segments from around the Spanish-speaking world, and listening to, understanding, and replying to auditory stimuli. Internet-based activities that are both challenging and fun will be incorporated into class.

322 Spanish II (full year, 1 credit)

Grades 9-10

Prerequisite: Spanish I or equivalent

In the second year of Spanish, students continue their immersion in the language and culture as they develop the four basic skills begun in Spanish I. They broaden their vocabulary and build on their syntactic structures in order to communicate with greater ease. They explore the values and customs of the Spanish-speaking world using video, audio, and Internet-based resources.

372 Honors Spanish II (full year, 1 credit)

Grades 9-10

Prerequisite: Accelerated Spanish I or Spanish I and department approval required

In the second year of Spanish, students continue their immersion in the language and culture as they further develop the four basic skills begun in Spanish I. They continue to broaden their vocabulary and syntactic structures in order to communicate with greater ease and fluency. They explore the values and customs of the Spanish-speaking world using video, audio, print media, and Internet-based resources, allowing them to explore literary as well as journalistic prose from around the Spanish-speaking world.

323 Spanish III (full year, 1 credit)

Grades 9-12

Prerequisite: Spanish II

Students further develop their understanding, speaking, writing, and reading skills. Immersed in the language, they will increase their proficiency by discussing reading selections, writing compositions, role-playing, and analyzing advanced syntactic structures. Students expand their knowledge of the Hispanic cultures using audio, video, and Internet-based sources.

324 Spanish IV (full year, 1 credit)

Grades 10-12

Prerequisite: Spanish III

Students develop a more advanced level of the four language skills in the immersion classroom: understanding, speaking, reading, and writing, with an emphasis on their oral communication and writing abilities. They continue to expand their knowledge of grammatical structures, as well as their ability to analyze and compare different Hispanic cultures. Through a variety of interactive activities that range from guided to communicative, students understand and appreciate the Hispanic world and engage in interesting conversations.

385 IB Spanish SL I (full year, 1 credit)

Grades 10-11

Prerequisite: Honors Spanish II and department approval required for non-IB Diploma Programme candidates

Note: this is the first year of a two-year IB course

Students continue to develop their basic linguistic skills as well as begin to refine higher-order thinking skills by reading, watching, listening to, discussing, and writing about interesting contemporary topics. All language used is in context with communicative purpose. The use of art, literature, journalistic prose, popular culture, music, dance, and film will expose the student to how the language is used by millions every day. Students will learn to communicate effectively in a wide range of situations and will be able to understand and respond appropriately to written and spoken prompts of average difficulty.

386 IB Spanish SL II/HL I (full year, 1 credit)

Grades 11-12

Prerequisite: IB Spanish SL I and department approval required for non-IB Diploma Programme candidates

Note: this is the second year (SL II) or the first year (HL I) of a two-year IB course

Note: this course is co-seated with IB Spanish HL II

At this advanced-level of language study, students continue to develop understanding, speaking, writing, and reading skills, as well as demonstrate heightened awareness of global issues and their impact on the Spanish-speaking world. Immersed in the language, they will increase their proficiency by discussing reading selections of literary or journalistic prose, writing compositions, role-playing, and analyzing advanced syntactic structures found in authentic sources. Students explore literature and journalistic prose of the Spanish-speaking world, watch and analyze the news, and read works by a variety of Spanish and Latin American authors. Students expand their knowledge of the Hispanic cultures using audio, video, and Internet-based sources.

387 IB Spanish HL II (full year, 1 credit)

Grade 12

Prerequisite: IB Spanish HL I and department approval required for non-IB Diploma Programme candidates

Note: this is the second year of a two-year IB course

Note: this course is co-seated with IB Spanish SL II/HL I

This challenging advanced class motivates students to continue to put into practice all linguistic skills acquired in previous classes. Students strive to heighten their awareness of global issues and the impact on the Spanish-speaking world. Immersed in the language, they discuss reading selections of literary or journalistic prose, write a variety of essays, role-play, and analyze advanced syntactic structures found in authentic sources. Students are required to take the IB exam at the end of the year.

MOREAU OPTIONS PROGRAM

Director: Emily Montgomery

The Moreau Options Program is Holy Cross' program for students with intellectual or developmental disabilities. Each student in the Moreau Program takes 2 - 4 classes a semester that are specifically designed for students with disabilities. Moreau classes are deliberately kept small, and an emphasis is placed on developing skills and knowledge that students can apply immediately in their inclusive classes and the broader Holy Cross community, as well as skills and knowledge that will help students develop independent lives as an adult. Assistive technology is integrated into all Moreau Options classes.

In addition to classes that are designed specifically for students with disabilities, the Moreau Options Program offers one class, Introduction to Special Education, which is open to all Holy Cross students.

Course Offerings 2017-2018 (detailed descriptions follow):

Pre-Algebra	Introduction to Special Education
Language and Composition I, II, III, IV	
Academic Reading	
Integrated and Applied Science	

409 Pre-Algebra (full year)

Grade 9 –12

Note: enrollment is limited to students in the Moreau Option Program

Note: this class may be repeated

Pre-Algebra is a self-paced class. Technology is used to ensure that each student receives an individualized education that suits their abilities and learning needs. Major topics include computations with whole numbers, fractions, decimals, geometry, measurement, and basic algebra. Hands on activities and applications to real-life situations are emphasized throughout the year.

209 Language and Composition I (full year)

Grade 9

Note: enrollment is limited to students in the Moreau Option Program

Students in Language and Composition I develop their reading, writing, and oral language skills while working on assignments from English I, and the freshmen theology classes.

210 Language and Composition II (full year)

Grade 10

Note: enrollment is limited to students in the Moreau Option Program

Students in Language and Composition II develop their reading, writing, and oral language skills while working on assignments from English II, and the sophomore theology classes.

211 Language and Composition III (full year)

Grade 11

Note: enrollment is limited to students in the Moreau Option Program

Students in Language and Composition III develop their reading, writing, and oral language skills while working on assignments from English III, and the junior theology classes.

212 Language and Composition IV (full year)

Grade 12

Note: enrollment is limited to students in the Moreau Option Program

Students in Language and Composition IV develop their reading, writing, and oral language skills while working on assignments from English IV, and the senior theology classes.

200 Academic Reading (Fall or Spring Semester)

Grade 9 – 12

Note: enrollment is limited to students in the Moreau Option Program

Note: class may be repeated

Academic Reading class is designed for students who need instruction on foundational reading skills including recognizing sight words, applying rules of phonics to decoding unknown words, and reading fluency.

809 Integrated and Applied Science (full year)

Grade 9 – 12

Note: enrollment is limited to students in the Moreau Option Program

This science course is designed to teach students the concepts and principles of physical science. Cooking projects and laboratory activities stress the development of important skills such as working safely, following directions, and observing and recording results.

185 Introduction to Special Education (fall or spring semester, ½ credit)

Grade 11, 12

Prerequisite: application to and approval by Director of the Moreau Options Program

Note: this class is open to enrollment by all students

Note: students may enroll in this course for either fall or spring, or for both semesters

11th and 12th grade students are invited to apply for the Introduction to Special Education Class. Students in this class work with students in the Moreau Options Program in the Moreau Options classroom, and general education settings. Under the supervision of the Moreau Options Director, they create and implement lesson plans, and assist students with academic tasks. Outside of class, students complete readings and assignments related to the topic of disability, and to best practices in education for students with identified disabilities.

ELECTIVES (NON-DEPARTMENTAL)

Please note that these courses do not fulfill requirements for credits in specific departments.

Course Offerings 2017-2018 (detailed descriptions follow):

Peer Ministry

IB Theory of Knowledge I & II

Physical Education III

Introduction to Sports Medicine

Introduction to Special Education

102 Peer Ministry (fall or spring semester, ½ credit)

Grade 12

Prerequisite: *application and Campus Ministry approval*

Note: *the grade given for this course is pass or fail.*

In the spring of the junior year, students are invited to apply for the role of Peer Minister through the Director of Campus Ministry. The course requires students to build self-awareness, develop a spirituality based on contemplation and action, and investigate both spiritually and academically the roles of servant-leadership. Ultimately, Peer Ministers serve as the spiritual leaders of the school community planning and leading our Campus Ministry programs including but not limited to prayers, sacraments and retreats. Please note: the grade given for this course is pass (P) or fail (F) and does not factor into GPA.

641 Physical Education III: Personal Fitness (fall or spring semester, ½ credit)

Grades 11-12

Pre-requisite: *Physical Education II*

This course is a high level Physical Education course designed to focus on the five components of fitness. This is a conditioning program to improve cardiovascular fitness, flexibility, muscle strength, muscle endurance, and body composition. Students will record and track their improvement. Activities include, but are not limited to, yoga, Pilates, Zumba, strength training, choreographed aerobic routines, step, and power walking.

642 Introduction to Sports Medicine (fall or spring semester, ½ credit)

Grades 10-12

This course explores the physiology of exercise and nutrition. Students will develop an understanding and practical application of basic athletic training principles. Course includes both class work and practical hands-on application. While students are not required to purchase a textbook, there is a lab fee of \$45 for this course. All students will be certified in First Aid and CPR.

181 IB Theory of Knowledge I (full year, 1 credit)

Grade 11

Note: *this course is open only to IB Diploma candidates and is the first year of a two-year IB course*

Theory of Knowledge I offers the opportunity to reflect critically on the different ways knowledge is obtained and to consider the role of knowledge in our own culture as well as in the cultures of others. Students are encouraged to consider their responsibilities as citizens of the world by reflecting on their own experiences and by considering other peoples' points of view. Students will learn to generate questions, consider alternate ideas, and explore multiple possible solutions, particularly in the areas of mathematics, natural sciences, and human sciences. In addition to the Theory of Knowledge curriculum, meeting times during this class period will support students' completion of the Extended Essay (EE) and Creativity, Activity, Service (CAS) components of the IB Diploma Programme Core.

182 IB Theory of Knowledge II (full year, 1 credit)

Grade 12

Prerequisite: IB Theory of Knowledge I

Note: this course is open only to IB Diploma candidates and is the second year of a two-year IB course

Theory of Knowledge II continues the exploration of knowledge issues by challenging students to be aware of themselves as thinkers, encouraging them to become more acquainted with the complexity of knowledge and helping them recognize the need to act responsibly in an increasingly interconnected world. Students will continue to generate questions, consider alternate ideas, and explore multiple solutions, particularly in the areas of history, ethics, and the arts. Each student will make an oral presentation and write an externally reviewed, IBO-required essay that will identify and explore a knowledge issue. In addition to the Theory of Knowledge curriculum, meeting times during this class period will support students' completion of the Extended Essay (EE) and Creativity, Activity, Service (CAS) components of the IB Diploma Programme Core.

185 Introduction to Special Education (fall or spring semester, ½ credit)

Grade 11, 12

Prerequisite: application to and approval by Director of the Moreau Options Program

Note: students may enroll in this course for either fall or spring, or for both semesters

11th and 12th grade students are invited to apply for the Introduction to Special Education Class. Students in this class work with students in the Moreau Options Program in the Moreau Options classroom, and general education settings. Under the supervision of the Moreau Options Director, they create and implement lesson plans, and assist students with academic tasks. Outside of class, students complete readings and assignments related to the topic of disability, and to best practices in education for students with identified disabilities.

IB PROGRAMME COURSES THROUGH PAMOJA EDUCATION ONLINE

IB Diploma Coordinator: Dale Placek

Site-based Coordinator: Jean Cotter

Students at The Academy of the Holy Cross who wish to take an IB course that falls outside of the Academy's course offerings may enroll in a two-year-long course offered online through Pamoja Education. Pamoja is a course provider that works in cooperation with the International Baccalaureate Organization to provide online Diploma Programme courses taught by highly qualified and experienced IB teachers (<http://www.pamojaeducation.com>).

Fees

In 2016-2017, the fee for each Pamoja class is \$1,200. The classes are two-years in length and the fee must be paid at the beginning of both school years. This cost does not include the IB Registration or Examination fees.

Course Offerings 2017-2018 (detailed descriptions follow):

Group 2 courses (Language Acquisition)

French ab initio SL
Mandarin ab initio SL
Spanish ab initio SL

Group 3 Courses (Individuals and Societies)

Business Management SL
Business Management HL
Economics HL
Information Technology in a Global Society SL
Information Technology in a Global Society HL
Math HL II
Philosophy SL
Psychology SL
Psychology HL

380 IB French ab initio SL (two years, 2 credits)

Grade 11 & 12

French ab initio is an IB Diploma Programme Group 2: Language Acquisition course for students who have little or no experience of learning French. The French ab initio course aims to develop the receptive, productive and interactive skills to a high level of communicative competence. The French ab initio course provides a solid grammar and vocabulary framework and is organized into the themes of individual and society, leisure and work, and urban and rural environment. Through the study of these themes, the students are able to practice grammatical structures and vocabulary and explore the language whilst developing an intercultural understanding. By developing the range of receptive, productive, and interactive skills, the students become able to communicate and interact in a range of everyday situations. These skills equip the student with the necessary skills to achieve the assessment objectives of the French ab initio course.

360 IB Mandarin ab initio SL (two years, 2 credits)

Grade 11 & 12

Mandarin ab initio is a language acquisition course for students having little or no experience with Chinese languages. The Mandarin ab initio course aims to develop the receptive, productive and interactive skills to a high level of communicative competence. While providing a solid framework in terms of grammar and vocabulary, the Mandarin ab initio course is organized into a number of cultural and thematic topics related to three themes: individual and society, leisure and work, urban and rural environment in which grammatical structures and vocabulary can be practiced. The topics provide the students with opportunities to practice and explore the language as well as to develop intercultural understanding. Through the development of receptive, productive, and interactive skills, students are enabled to communicate and interact appropriately in a defined range of everyday situations.

370 IB Spanish ab initio SL

Grade 11 & 12

Spanish ab initio SL is a course for students with no previous formal experience of learning Spanish. The Spanish ab initio course develops students' functional literacy in the language as well as their appreciation for the cultural riches in Spanish-speaking societies. It aims to develop the four primary language skills (listening, speaking, reading, and writing) to a similar level of communicative competence. While providing a solid framework in terms of grammar and vocabulary, the Spanish ab initio course is organized into a number of cultural and thematic topics in which grammatical structures and vocabulary can be practiced. The topics provide the students with opportunities to practice and explore the language as well as to develop intercultural competence. Through the development of receptive, productive, and interactive skills, students are enabled to communicate and interact appropriately in a range of everyday situations.

966 IB Business Management SL (two years, 2 credits)

Grade 11 & 12

This Business Management course explores how business decision-making processes impact internal and external environments. Links between the topics are central to the course, and this integration promotes a holistic overview of business activity.

967 IB Business Management HL (two years, 2 credits)

Grade 11 & 12

The course considers the diverse range of business organizations and activities and the cultural and economic context in which business operates. Emphasis is placed on strategic decision-making and the day-to-day business functions of marketing, production, human resource management, and finance. Links between the topics are central to the course, and this integration promotes a holistic overview of business activity.

968 IB Economics HL (two years, 2 credits)

Grade 11 & 12

Economics HL is the study of economic theory and its applications in the world today. In HL Economics students will interpret economic data and statistics, apply relevant theory, and demonstrate this knowledge using written prose, diagrams and economic terminology. The course is divided into four sections: *Microeconomics* which contains the topics of competitive markets, elasticity, government intervention, market failure, and the theory of the firm and market structures; *Macroeconomics* which looks at the level of overall economic activity, aggregate demand and aggregate supply, macroeconomic objectives, fiscal, monetary, and supply-side policies; *International Economics* which involves learning about international trade, exchange rate, the balance of payments and economic integration, and terms of trade; and *Development Economics*, which looks at economic development and how it is measured, the role of domestic factors, international trade, foreign direct investment (FDI), foreign aid and multilateral development assistance, and international debt. The final topic is the balance between markets and intervention.

164 IB Information Technology in a Global Society SL (two years, 2 credits)

Grade 11 & 12

This course involves the study and evaluation of the impact of information technology (IT) on individuals and society. The course explores the advantages and disadvantages of digital culture, and provides a framework for the student to make informed judgments and decisions about the use of IT within contemporary social contexts.

166 IB Information Technology in a Global Society HL (two years, 2 credits)

Grade 11 & 12

The course develops students' understanding of the capabilities of current and emerging IT systems and the impact of these systems on a range of stakeholders. Students are encouraged to apply their knowledge of existing IT systems to various scenarios and to make informed judgments about the effects of IT developments on these scenarios. Furthermore, students are required to use their knowledge of IT systems and practical IT skills to justify IT solutions for a specified client or end-user.

964 IB Philosophy SL (two years, 2 credits)

Grade 11 & 12

The emphasis of the IB philosophy course is very much on doing philosophy. Students develop their skills through the study of philosophical themes and the close reading of philosophical texts. Students learn through tools, such as critical and systematic thinking, careful analysis and evaluation, and construction of arguments. Students are challenged to develop their own philosophical voice and independence of thought. IB Philosophy aims to bring the subject of philosophy alive, gaining a sense of its richness and practical value in daily life, and expanding our appreciation of ourselves and the world around us. It teaches us not what to think, but how to think. By participating in the great philosophical debates, students will develop their skills of rigorous reasoning; by study, analysis and criticism of the great works of philosophy, ancient and modern, students will develop their capacity to make reasoned judgments for themselves.

980 IB Psychology SL (two years, 2 credits)

Grade 11 & 12

Psychology is the systematic study of behavior and mental processes. Psychology has its roots in both the natural and social sciences, leading to a variety of research designs and applications, and providing a unique approach to understanding modern society.

982 IB Psychology HL (two years, 2 credits)

Grade 11 & 12

IB psychology adopts an integrative approach - looking at the interaction between biological, cognitive, and sociocultural influences on human behavior. It enables students to achieve greater understanding of themselves and to appreciate the diversity of human behavior. The ethical concerns raised by the methodology and application of psychological research are key considerations.

ONE SCHOOL HOUSE AND THE ONLINE SCHOOL FOR GIRLS

OSG Coordinator: Rodney Larsen, Assistant Principal for Academics

The Academy of the Holy Cross is a member of One School House and the Online School for Girls (OSG), a consortium of over 70 girls' schools from across the country. Membership in the OSG allows us to expand our course offerings and connect our students in meaningful, academic pursuits with students around the country and around the world in a blended-learning environment.

Note that OSG courses have an additional associated fee, which is \$1,495 per course in the 2017-2018 academic year. Enrollment also requires approval from the Assistant Principal for Academics. Students interested in taking an online course must complete the Online Course Request form, available on the Useful Forms page of the Student (or Parent) Portal.

Course Offerings in 2017-2018 (detailed descriptions follow):

AP Psychology	AP World History
AP Computer Science	Creating Tomorrow – Designing for the Digital World
AP Human Geography	Linear Algebra
AP Macroeconomics	Marine Science
AP Micro Economics	Multivariable Calculus and Differential Equations
AP Music Theory	

995 AP Psychology (1 credit, full year)

Prerequisite: Successful completion of tenth grade

AP Psychology course will introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. In this course, students will be presented with the psychological facts, principles, and phenomena contained within the major branches of psychology. The course will include a balanced examination of: Biological Bases of Behavior, Sensation and Perception, States of Consciousness, Learning, Cognition, Motivation and Emotion, Developmental Psychology, Personality, Testing and Individual Differences, Abnormal Psychology, Treatment of Psychological Disorders and Social Psychology. Students will develop a thorough understanding of the many subfields contained within psychology and the connections between them. In addition, students will also be exposed to the history, methodology, and ethical practices associated with psychological research. Upon completion of this course students will recognize the significance of psychology and its practical applications upon the world around them. Students will engage collaboratively with their classmates in projects and real-world discussions. All students are required to take the Advanced Placement exam in the spring of the year.

160 AP Computer Science (1 credit, full year)

Prerequisites: Successful completion of Algebra II, and any of the following: OSG's Introduction to Computer Programming, OSG's Preparing for AP Computer Science, or previous programming experience and instructor permission

The AP Computer Science course will introduce the key concepts and techniques of object-oriented programming in Java. The analytic, critical-thinking, and problem-solving skills developed in this course will transfer to programming in other languages on a variety of platforms. This course is designed with the idea that programming should be fun, engaging, and intuitive. Students will work creatively and collaboratively with their classmates and develop a solid foundation from which to launch into a wide range of computer science areas. In today's world, having an understanding of programming concepts as well as the ability to approach problems with a "programmer's eye" have become essential skills for students and professionals. All students are required to take the Advanced Placement exam in the spring of the year.

960 AP Human Geography (1 credit, full year)

Prerequisite: Successful completion of one year of high school history

AP Human Geography will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. Students will analyze the interplay between geography and humanity while they investigate topics such as population growth and migration; cultural patterns and processes; political organization of space; agriculture; industrialization and economic development; cities and urban land use; and the environmental impact of human actions. They will learn about the methods and tools geographers use in their science and practice, which help geographers answer such diverse questions as: What do clustering patterns of voting districts in a state tell one about the population? Why do most North Americans practice Christianity? And, what has changed in the last 10 years that has caused the oil industry to not be able to keep up with demand? The course will include discussions, collaborative projects, free-response questions and traditional tests and quizzes. The course is intended for sophomores, juniors, and seniors. All students are required to take the Advanced Placement exam in the spring of the year.

961 AP Macroeconomics (1 credit, full year)

Prerequisite: Successful completion of Algebra II

AP Macroeconomics will introduce students to major economic issues such as basic market analysis, the causes of the cycle of economic growth and recession, the problems of inflation and unemployment, the causes and consequences of federal budget deficits, and the causes and effects of international trade imbalances and currency fluctuations. Public policy issues are analyzed in a debate format between conservative and liberal approaches. This course will involve extensive reading, problem-solving exercises, online discussions, quizzes and tests, and research and writing about contemporary macroeconomic issues. Strong reading, algebra, and analytical skills are necessary for success, as is strong motivation. AP Macroeconomics will prepare students to become informed and thoughtful and will thoroughly prepare students to take the Advanced Placement exam in the spring. AP Macroeconomics is recommended for juniors and seniors. All students are required to take the Advanced Placement exam in the spring of the year.

970 AP Microeconomics (1 credit, full year)

Prerequisite: Successful completion of Algebra II

AP Microeconomics is the study of economic principles that apply to the actions of individual decision makers, both consumers and producers, within an economic system. Topics covered in this course will include: opportunity cost, supply and demand, free trade, economic efficiency, factor markets, monopolies and other anticompetitive markets, as well as government intervention in the economy. Students will explore critical questions, such as: What role do trade-offs, incentives, and marginal thinking play in individual and firm decision making? How can economies most efficiently use their scarce resources? How can governments balance efficiency and equality in an economic system? As an online, college-level course, significant emphasis is placed on independent work and individual accountability. Students will complete collaborative projects, group discussions, problem sets, quizzes, and tests. The curriculum is developed to prepare students for the AP Microeconomics examination in May. Strong mathematical reasoning skills and an interest in finance or business (or even politics) will help students in this course. AP Microeconomics is recommended for juniors and seniors. All students are required to take the Advanced Placement exam in the spring of the year.

540 AP Music Theory (1 credit, full year)

Prerequisite: Ability to read music off of at least one clef and proficiency in an instrument or voice (at least two years study), or permission of the instructor

AP Music Theory will introduce advanced concepts of music theory to students. The aim of this course is to improve students' performance, aural, analytical, and composition skills. Music Theory is an intensive, fast-paced course that touches on aspects of melody, harmony, texture, form, musical analysis, and composition. This course also includes an aural section of sight-singing, melodic and harmonic dictation, and listening examples. Each student will be required to compose and perform original compositions, both as an individual and in a group setting. This is a crucial course for anyone looking to pursue music professionally or for anyone who has a passion in music and wants to explore her interest. All students are required to take the Advanced Placement exam in the spring of the year.

990 AP World History (1 credit, full year)

Prerequisite: Successful completion of one year of high school history

AP World History will cover history from a truly global perspective rather than that of Western civilization. This course will trace major developments beginning with the Neolithic Revolution and ending with twenty-first century globalization. This course emphasizes the nature of change in global frameworks; studies historical forces and events that have shaped today's world; and offers a comparison among major societies. This course will focus on reading, writing, and research, and will include analysis of primary source documents, lectures, discussions, and projects. Students will engage collaboratively and creatively to understand history and their role in it. All students enrolled in this course will be prepared to take the Advanced Placement exam in the spring. AP World History is intended for sophomores, juniors, and seniors. All students are required to take the Advanced Placement exam in the spring of the year.

157 Creating Tomorrow - Designing for the Digital World (1 credit, full year)

Pre-requisite: Students must have an understanding of basic computer programming. Students may fulfill this requirement through any of the following: OSG's Introduction to Computer Programming, OSG's Preparing for AP Computer Science, or previous programming experience and instructor permission

The importance of communication in the digital world can't be underestimated. In this course, students will develop their digital communication skills by using the design process to create products relevant to the digital age in which we live. Combining programming, design and entrepreneurship, students will work both individually and in teams to create digital products in a variety of formats using a variety of tools and computer languages, and learn about how to brand and market these products. Production will require study in research, conceptual design, schedule and budget, concept development, testing, and implementation of products and/or designs. Example projects might include games, web sites, film, graphics and infographics, and/or mobile application design. Students will have choice in selecting projects of interest and be able to pursue interests in depth. By the end of the course, students will have developed a portfolio of their work.

420 Linear Algebra (1 credit, full year)

Prerequisite: Successful completion of AP Calculus AB is adequate, but AP Calculus BC or equivalent is recommended

Linear algebra is the study of vectors, the spaces in which they live, and linear mappings between those spaces. It gives us a powerful new way to think mathematically, and it has many applications in science, engineering, economics, and any field in which multiple variables interact in ways that can be modeled by systems of linear equations. It's therefore a required and very useful subject in college for many science and engineering majors. This yearlong course will cover a typical one-semester college linear algebra curriculum, with topics including matrix algebra, vector spaces, eigenvalues and eigenvectors, and applications to differential equations. In the sequence of standard math courses, linear algebra can be studied either before or after multivariable calculus. It's a great fit for the student who has completed AP Calculus AB or BC, who is passionate about challenging herself to think in new ways, and who wants to increase her ability to tackle problems in the real world.

860 Marine Science (1 credit, full year)

Prerequisite: Successful completion of one year of high school biology

Marine Science will introduce students to oceanography through a review of earth science concepts, investigation of physical and chemical ocean systems, and the exploration of marine organisms. Major topics of study will include the anatomy and behavior of marine organisms, the ecology of marine habitats, and the role of climate change in both marine and global systems. There are three goals for the course: 1) to develop a solid knowledge base and understanding of marine ecological systems, 2) to integrate that knowledge base into practical applications of science that affect students' world and futures; and 3) to foster critical thinking skills and a keen understanding of the scientific process necessary to become well-informed and scientifically aware citizens, whether students' futures directly involve marine science or not.

Coursework will include a variety of methods and mediums, including but not limited to: virtual and at-home laboratory exercises; scientific literature analysis; reading and video assignments; and research using online journals and current oceanographic data.

462 Multivariable Calculus and Differential Equations (1 credit, full year)

Prerequisite: Successful completion of AP Calculus BC

Multivariable Calculus and Differential Equations will cover a number of topics beyond the AP Calculus BC curriculum, including calculating volumes by using shells, surfaces of revolution, and centers of mass and centroids. The course also explores topics that are studied in a typical college level third semester calculus course, including vectors and vector valued functions, differentiation in several variables, optimization in several variables, multiple integration, and line and surface integrals. Moving onto Differential Equations, students begin solving exact first-order equations, solving second order homogeneous and nonhomogeneous linear equation, and exploring applications to various scientific fields. This course will feature discussions, projects, and other activities that will help students to develop their advanced math skills in a collaborative and creative way.

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