



MERCY HIGH SCHOOL  
Course Catalog  
2018-2019

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[www.mercyhighschool.com](http://www.mercyhighschool.com)

**MERCY HIGH SCHOOL**  
**2018-19 COURSE CATALOG**  
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## ACADEMIC PROGRAM 2018- 2019

### Grade Nine

Religion  
English  
Math  
World Cultures  
Biology  
French or Spanish  
Foundations in Computer Science  
Physical and Health Education I

### Grade Eleven

Religion/Social Service  
English  
Math  
U.S. History II  
Elective #1 (rec. World Languages)  
Elective #2

### Grade Ten

Religion  
English  
Math  
Physical Science or Introduction to  
Physics (H) U.S. History I  
French or Spanish  
Introduction to Art, Basic Design or  
World Music  
Physical and Health Education II

### Grade Twelve

Religion  
English  
Math  
Elective #1  
Elective #2  
Elective #3

## SPECIAL PROGRAMS

### The Catherine McAuley Honors Program

The Catherine McAuley Honors Program provides the opportunity for students to meet rigorous academic challenges, building confidence as scholars and thinkers. McAuley Scholars are required to develop their leadership skills by participating in at least one extracurricular activity each year and achieve an overall B average or better for final grades in all courses each year.

McAuley Scholars complete the program with a Capstone Project, which is initiated second semester of the junior year. The project is the conclusion or synthesis of the McAuley Scholar experience and should reflect thought, passion, and academic research. The Scholar will share the fruits of her labor with the Mercy community.

#### **Requirements:**

##### **9th Grade**

- The Honors sections of the curriculum
- Math courses determined by placement testing
- Participation in extracurricular activity
- B or better in final grades for each course

##### **10th Grade**

- Students choose Honors study in at least two disciplines: Math, Science, English, Social Studies, and World Language
- Participation in extracurricular activity broadened
- B or better in final grades for each course

##### **11th Grade**

- Students continue in the most challenging disciplines of choice offered
- Initiation of Capstone Project
- Participation in extracurricular activities or leadership in one
- B or better in final grades for each course

##### **12th Grade**

- Students continue in the most challenging disciplines of choice offered
- Completion and presentation of Capstone Project
- Participation/leadership in extracurricular activities
- B or better in final grades for each course

## **The Mentor Program**

A signature program of Mercy High School, the Mentor Program allows selected juniors to work with a “wise adviser,” who accepts the student as a protégé, so she can explore an individually chosen field of interest beyond the traditional academic setting. Those in the Mentor Program can conduct an independent study for one or two semesters, with a minimum of thirty hours each quarter to be devoted to it. Research on the outlook for the profession, its current challenges, and the pathway to achieve mastery in it are part of the student’s investigation. A final reflective paper marks the culmination of the course. A proposal outlining the goals of the rising junior and specific plans for her study is required.

## **Project Lead the Way- Biomedical Sciences**

The Project Lead the Way (PLTW) Biomedical Sciences Program comprises a sequence of classes that allows each student to investigate the roles of biomedical professionals as she studies human medicine, physiology, genetics, microbiology, and public health in the context of real-world cases. Students work with one another to understand and design solutions to some of the pressing health challenges facing the world.

The project-based aspects of the curriculum give students a chance to identify a problem, apply what they know, and find unique solutions as they lead their own learning. PLTW courses complement the regular sequence of math and science courses required in the curriculum.

Students in PLTW- Biomedical Sciences are exempt from technology requirements of ninth and tenth grade. They need to fulfill Physical Education and Fine Arts requirements before graduation. This can be by summer online courses or taking Physical Education and identified arts courses in the junior and senior years.

### **Requirements:**

<b>9th Grade</b>	Principles of Biomedical Science
<b>10th Grade</b>	Human Body Systems
<b>11th Grade</b>	Medical Interventions
<b>12th Grade</b>	Medical Innovations

## **Visual Arts Program**

Mercy's four-year visual arts program is for students with a serious interest in and talent for developing their artistic skills. Many graduates of the visual arts program pursue the visual arts in college or find a career path in the visual arts.

Art students explore the elements, principles, and history of art, develop their skills, and learn to work in a variety of media. The sequence of classes assists artists in the creation of a portfolio to be submitted for Advanced Placement Studio Art credit in the senior year.

### **Requirements:**

<b>9th Grade</b>	Introduction to Drawing (semester course)
<b>10th Grade</b>	Basic Design (semester course)
<b>11th Grade</b>	Introduction to Studio Techniques: Mark Making (full year course)
<b>12th Grade</b>	Introduction to Painting (full year course); Independent Study Studio Art (optional)

## **The Sister Agnese Neumann Scholars Program in Partnership with MedStar Good Samaritan Hospital (Neumann Scholars)**

MedStar Good Samaritan Hospital is recognized for its excellence in the Center for Successful Aging, Occupational and Physical Therapy, Nursing, and Community Health. In the first year of the program, the Neumann Scholars will be able to experience each of these specialties, and in addition, participate in training for infection prevention and patient safety through monthly visitations to the hospital. In the second year, Neumann Scholars will receive vital signs training and CPR, and will be able to participate in the Dine and Discover Series, to which clinicians at the hospital are invited. In the third year, Neumann Scholars will be assigned a mentor who, through bi-monthly meetings, will help them develop an internship practicum project for the following summer.

### **Requirements:**

**Year 1:** The highest level of science and mathematics to which one is assigned  
Field trips to MedStar Good Samaritan Hospital for rotations and skills training

**Year 2:** The highest level of science and mathematics to which one is assigned  
Field trips to MedStar facilities in Baltimore City for skills training and participation in Dine and Discover at MedStar Good Samaritan

**Year 3:** The highest level of science and mathematics to which one is assigned  
Bi-monthly meetings with mentor at MedStar Good Samaritan to develop and construct an internship practicum project for the following summer

**Summer of Year 3:** Practicum in Healthcare Careers: 6-8 week practicum the with mentor in selected discipline

### **Women in Medicine in Partnership with Mercy Medical Center**

The partnership between Mercy High School and Mercy Medical Center is a unique one and offers Mercy students an unparalleled opportunity to work closely with medical professionals.

During the ninth grade, WIM students travel to the Medical Center nine times and explore multiple domains of hospital life. During the sophomore year, Mercy students travel to the hospital four or five times and participate in a Speaker Series on campus to become acquainted with topics such as bioethics, the spiritual dimensions of healing, and biomedical engineering, for example. Juniors choose a medical area on which to focus and are paired with a mentor. Each junior designs a research project, collects data, and creates a product designed to address a particular problem faced by a specific population of patients and their families at Mercy Medical Center. Seniors present their work to the community during a school-wide assembly in the spring.

#### **Requirements:**

- |                   |  |
|-------------------|--|
| <b>9th Grade</b>  | The highest level of Biology and Mathematics to which one is assigned/Field Trips to Mercy Medical Center  |
| <b>10th Grade</b> | Introduction to Physical Science or Introduction to Physics (Honors) and Mathematics, each reflecting the maximum challenge attainable for that student. Field trips to Mercy Medical Center and participation in Speaker Series |
| <b>11th Grade</b> | Chemistry and Mathematics, each reflecting the maximum challenge attainable for that student Research Project with Mercy Medical Mentor  |
| <b>12th Grade</b> | Physics (Honors), Biology II, or AP Biology, and Mathematics Continuation of research project with mentor and presentation at school-wide assembly   |

## **Women in Technology**

The four-year program introduces participants to the possibilities of a career in technology. Experience is provided in programming, networking, operating systems, graphics, databases and information retrieval, security, emerging technologies, and design of software, hardware, and websites. The social issues involving internet security, privacy, copyright, and the impact of technology are also explored. Students edit both audio and video material, and have vast opportunity to provide service to the Mercy community using their expertise. Students are also able to explore career paths in technology via networking with women in the field and through field trips.

### **Requirements:**

- |                   |   |
|-------------------|---|
| <b>9th Grade</b>  | Foundations in Computer Science<br>Required participation in Women in Technology meetings and off-campus trips.   |
| <b>10th Grade</b> | AP Computer Science Principles<br>Required participation in Women in Technology meetings and off-campus trips.  |
| <b>11th Grade</b> | At least one Computer Science Department course each semester; including Web Design and Computer Graphics.<br>Required participation in Women in Technology meetings and off-campus trips.  |
| <b>12th Grade</b> | At least one Computer Science Department course each semester; including Web Development and Design (.5) or Digital Media (1), which are also Fine Arts courses<br>Required participation in Women in Technology meetings and off-campus trips. |



## **Dual Enrollment Program with Notre Dame of Maryland University\***

Beginning in the fall of 2018, juniors and seniors who enroll and earn at least a C in identified courses at Mercy High School will, at their completion, be awarded college credit as well as credit to graduate. These courses are:

<b>Mercy Course</b>	<b>Listed on the NDMU transcript</b>
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English

AP Language and Composition	Eng 101
AP Literature and Composition	Eng elective

Mathematics

Pre-calculus (Honors)	General education
AP Calculus AB	Calc 211
AP Calculus BC	Calc 212

Science

AP Biology	Bio 110
Physics (Honors)*	Phy 101

Social Studies

AP Psychology	Psy 101
Global Studies	PolSci 101

World Languages

French 4/5	Fr 103
Spanish 4/5*	Sp 103

\*pending

To earn college credit, juniors may take 2 of the courses listed above and seniors may take 3. Each course will earn 3 college credits. Should a student take 5 such courses, she would have earned 15 college credits upon graduation, equivalent to the first semester of college.

Each dual credit course carries a fee of \$275. Each Mercy Girl enrolled in a class for dual enrollment would have a transcript from Notre Dame of Maryland University, listing the courses in which she enrolled and passed, with her Mercy grade on it. The NDMU transcript will be a supplement to the Mercy High School transcript.

## **Dual Enrollment with Anne Arundel Community College**

Juniors and seniors who have sufficient academic success can enroll in courses with Anne Arundel Community College. Applications need to be approved in advance. Those who earn a C in such a course will receive credit both from AACC and from Mercy High School. Anne Arundel Community College tuition applies to this opportunity.

### **African American History (online) Credit: 0.50 Semester 1 J/S**

This course is taught online through Anne Arundel Community College. A student completing this course will earn 0.50 credit through Mercy High School and three college credits through AACC. An additional fee is required. Students will evaluate significant contributions made by African Americans to the American past and gain oral and visual impressions of important issues and personalities of our nation's African American heritage through media presentations. Prerequisites: administration approval.

### **Introduction to Sociology (online) Credit: 0.50 Semester 2 J/S**

This course is taught online through Anne Arundel Community College. A student completing this course will earn 0.50 credit through Mercy High School and three college credits through AACC. An additional fee is required. Students will learn sociological principles and perspectives as a way of understanding everyday social life, study meanings and functions of various roles in historical and contemporary societies, and evaluate causes, consequences and comparisons of social hierarchies. Prerequisites: administration approval.

### **\* American Sign Language (online) Credit: 0.50 Semester 2 J/S**

This course is taught online through Anne Arundel Community College. A student completing this course will earn 0.50 credit through Mercy High School and three college credits through AACC. An additional fee may be required.

## **SUMMER ONLINE COURSES (2018)**

The following online courses are offered to students for original credit through Mercy Learning Online, an initiative of the Network for Mercy Education. Courses earn 0.50 credit and run June 18, 2018 to July 20, 2018. Registration begins April 16<sup>th</sup> and is open to all Mercy students. Tuition is \$325 per course.

### **American Government**

Students will study the foundation, theory, structure and process of American government. Students will analyze the Constitution and learn the branches of the government and their roles and functions. Through exploration of current governmental issues, public policy and the responsibilities of citizenship, students will further develop their skills of critical analysis.

### **Anatomy**

Lessons include an introduction to anatomy including language, organ systems, and types of tissues; study of the skeletal and muscular systems; study of the cardiovascular and respiratory systems; study of the digestive and nervous systems; and study of the urinary system and reproductive systems. Each lesson

includes material to read and web sites to access for information. Assignments require writing, analysis, critical thinking, and demonstration of core knowledge and concepts.

### **Art History**

Students will study the visual arts in historical and cultural contexts. Study ranges from prehistoric through Egyptian art up to modern art. Each topic includes information on the time period, its characteristics, key artists and key works. Students will further develop their skills of critical analysis and be encouraged to strengthen and deepen appreciation for the arts. (Can be applied toward the fine arts graduation requirement.)

### **Astronomy and Cosmology**

Humans have gazed into the sky for thousands of years pondering how our lives have connected to the sun, moon, and stars. Through the science of astronomy, we now know that our connection to the Universe goes deeper than our ancestors could imagine. From Einstein's theory of relativity to the exploration of the delicate relationship between our Earth and the Sun, this course explores some of the major discoveries in astronomy and cosmology. Topics to be covered include the history of the telescope, The Big Bang Theory, stellar evolution, comets and asteroids, planets and moons, astrobiology, black holes and quasars, and the role of Catholicism in science and the exploration of space.

### **Economics**

Students will study basic economic theory. Moreover, they will learn to apply basic economic concepts to real-world issues and problems. Knowledge of fundamental principles and application of theory will be addressed. Through this application, students will further develop their skills of critical analysis.

### **Environmental Science**

This course will include: the context of the earth as a Critical Concern of the Sisters of Mercy; reading and exploring the messages in *Laudato Si*, Pope Francis' encyclical on the environment and human ecology; and course content and processes that lead to greater knowledge and understanding of the environment, challenges to it, and potential solutions.

### **Exploring Our Universe**

Humans have gazed into the sky for thousands of years pondering how are lives might be connected to the sun, moon, and stars. Through the science of astronomy, we know that our connection to the Universe is deeper than our ancestors could ever imagine. From the Hubble deep field images, to the exploration of the delicate relationship between our sun and the earth, in this 1/2 credit course, students will explore some of the major discoveries in astronomy.

### **Health**

Students will learn about and research contemporary health issues. Students will be able to apply practices and habits that will enhance their general health. Using the four domains (physical, social, emotional, and intellectual) of health,

students will be able to specify healthy and unhealthy practices within each domain. By recognizing and critically analyzing current health problems for adolescents, students will discover prevention techniques and solutions to implement into their own lives.

### **Introduction to Psychology**

The focus will be on learning basic theories and principles of psychology. Four major areas of the study of psychology will be considered. In exploring these areas, students learn that the study of behavior and mental processes is extensive, interesting and can become the work of one's life. This course shall consider the areas of: Developmental Psychology, Cognition/Motivation and Emotions, Personality and Social Psychology. Students will further develop their skills of critical analysis and be encouraged to strengthen and deepen their understanding of the field of psychology.

### **Music Appreciation**

Students will study music in its historical and cultural contexts. Study will include a variety of genres and will include the works and contributions of significant artists and composers. Students will further develop their skills of critical analysis and be encouraged to strengthen and deepen appreciation for music.

### **Sociology**

Students will study sociology, the study of human society and social behaviors. Sociologists are interested in social interaction or how people relate to one another and influence each other's behavior. Students will further develop their skills of critical analysis and be encouraged to strengthen and deepen their understanding of human and social behavior.

### **Speech**

Students will study the basic principles, components, and skills of effective speaking and listening. Study will include research, writing, speaking, listening, and evaluating. Students will study effective uses of rhetoric and persuasion. A textbook is used for this course to provide additional resources for study.

### **Street Law**

Students will explore the knowledge and skills necessary to live in a lawful society. Topics will include the differences in Civil and Criminal law. New and in development for summer 2018, a variety of resources will be used to enhance learning. This course is designed for students with an interest in the law and in a study of society.

### **World Geography**

Students will further develop their skills of critical analysis in the study of World Geography and be encouraged to strengthen and deepen their knowledge of the importance of geography in human affairs. Student's study will include location, places and regions, physical systems, human systems, environment and society.

## GRADUATION REQUIREMENTS

The following are requirements for graduation from Mercy High School:

Religion	4.00 credits <u>plus</u> 0.50 credit Social Service
English	4.00
Math	4.00
Science	3.00
Social Studies (including 1.00 U.S. History plus 0.50 American Government)	3.00
World Language (two consecutive years of one language)	2.00
Fine Arts*	1.00
Physical Education**	1.00
Electives***	3.00
Total:	25.50

Transfer students into Mercy after 9th grade who did not have Religion courses in their previous schools are not required to make up those credits in Religion.

\*Students may apply only 0.50 credit from participation in Fine Arts co-curricular activities toward satisfying the Fine Arts requirement.

\*\*Except for students in special programs, the Physical Education graduation requirement cannot be met by applying credits from sports.

\*\*\*The electives requirement may not be met by credits earned through sports or co-curricular activities.

## **JUNIOR/SENIOR REGISTRATION**

The following credit and course requirements are applicable to **juniors**:

**Credits:** 6.5 minimum

**Courses:** 6 courses each semester

Juniors are required to take Religion, English, Mathematics, and U.S. History; a third year of World Language is recommended.

The following credit and course requirements are applicable to **seniors**:

**Credits:** 6.0 minimum

**Courses:** 6 courses each semester

Current seniors are required to take Religion, English, and Math.

### **Course Registration:**

- Discuss your future plans and courses with your parent(s)/guardian(s) and your adviser.
- Of the courses on your course selection sheet, select and check those that are your highest priority.
- Look at the remaining courses on your planning sheet and select those you wish to take, ensuring that both credit and course requirements are being met.
- If course description sheet requires approval, obtain appropriate signatures.
- Meet with your adviser to check your credits and graduation requirements.
- Obtain signature(s) of parent(s)/guardian(s).
- Submit to adviser to obtain his/her signature and date and time of submission.

### **Exceptions:**

Special requests for exceptions will be handled individually. If you have a serious reason for requesting a course not on your planning sheet:

- Obtain the approval of the Department Chairperson for the specific course desired.
- If it is necessary to adjust your offerings, see the Director of Scheduling before submitting to your adviser.

### **Changing Courses:**

Any requests for changes in course selection should be handled by the last day of classes. A fee of \$10 will be assessed once school is in session; all course changes initiated by students must be completed within one cycle.

## GUIDANCE AND STUDENT SERVICES

### **General guidelines for course planning in preparation for college admissions:**

It is vital to select high school courses that will best prepare you for your future studies. Be sure to note the following points regarding college entrance:

Academically, admission to college is primarily based on the strength of your academic program in relation to the courses offered, and your grades in the first three years of high school (took out “but keep in mind” that admission is conditional until your final transcript is received after graduation). In general, the more selective a college or program is, the stronger and broader your academic preparation must be to gain admission to that school or program.

### **Four-year college or university:**

Admission requirements for four-year programs vary. Colleges rely heavily on the applicant’s academic record (grades and rigor); with particular focus on grades in the traditional/core subject areas: Math, English, Science, Social Studies and World Languages.

While Mercy High School only requires two years of a World Language, some colleges require three years for admission.

### **Two-year community college:**

In most cases, admission to a two-year college is non-competitive and less complex than admission to a four-year school. It is important to remember, however, that for some schools, placement in classes depends on high school performance, as well as college admissions test scores or a placement test. In addition, there may be additional requirements for some programs (ex. Allied Health Field Programs, such as nursing or medical technology). It is important to research admissions policies for specific programs such as these, as they may be more competitive due to limited space availability.

### **NCAA Eligibility**

If you intend to play a sport at the competitive level (Division I, II or III) in college, be mindful of the following NCAA Eligibility Requirements:

#### **Division I**

Maintain a minimum GPA of 2.3 in the following courses:

- Four years English
- Three years Math (Algebra I and higher)
- Two years Science
- One additional year of English, Math or Science
- Two years Social Science (social studies)
- Four years of additional core course credit, which can include World Language

## **Division II**

Maintain a minimum GPA of 2.2 in the following courses:

- Three years English
- Two years Math (Algebra I and higher)
- Two years Science
- Three additional years in English, Math or Science
- Two years Social Science (social studies)
- Four years of additional core course credit, which can include World Language

## **Division III**

- Meet the admissions requirements of these colleges. If you are looking strictly at Division III schools, you do not need to register with the NCAA Clearinghouse.

## **Mercy High School's Approved NCAA Core Courses:**

**English:** Language and Literature I, Language and Literature II, Language and Literature III, Language and Literature IV, AP Language and Composition, AP Literature and Composition

**Math:** Algebra I, Plane Geometry, Algebra II, Introduction to Pre-Calculus, Pre-Calculus, Statistics, AP Calculus AB, AP Calculus BC

**Science:** Biology I, Principles of Biomedical Science, IPS, Introduction to Physics, Human Body Systems, Chemistry, Biomedical Intervention, Exploring the Environment, Biomedical Innovation, Biology II, AP Biology, Physics

**Social Sciences:** World Cultures, American Government, U.S. History I and U.S. History II, AP U.S. History, AP Psychology, Global Issues, Introduction to Sociology (took out African-American History)

**Other:** French IV Spanish IV

## **Additional Information:**

- Ten of the 16 core courses must be completed by the seventh semester (prior to senior year).
- There is a corresponding SAT or ACT requirement to match the student's GPA (sliding scale).
- Carefully review information found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) and register through the NCAA Clearinghouse before the end of junior year.
- Carefully review information found at [www.eligibilitycenter.org](http://www.eligibilitycenter.org) and register through the NCAA Clearinghouse before the end of junior year.



## SEMINAR PROGRAM

Every student has Seminar built into her schedule. Each year-level focuses on the following topics:

- Learning skills
- Leadership
- Cultural competence
- College counseling
- Wellness

Freshman Seminar: Full year

Sophomore Seminar: Semester 1

Junior Seminar: Semester 2

Senior Seminar: Full year

## COURSE DESCRIPTIONS

### COMPUTER SCIENCE AND ACADEMIC TECHNOLOGY

#### **Foundations in Computer Science      Credit .50      Semester F**

Topics in Technology is a one-semester course requirement for freshmen. Students will explore the tools needed to thrive in our technologically-oriented, global society. This course stresses the importance of learning about computers, the various types of computer systems and their components, the principles by which computer systems work, the practical applications of computers and related technologies, and the ways in which the world is being changed by these technologies. Students will work with both Apple Macintosh and the MS Windows operating systems. In addition to learning how to navigate Mercy's network facilities, students will review Microsoft Office applications and will be introduced to programs such as Adobe Photoshop and Audacity. Students will use the iPad extensively in class, incorporating Book Creator, Garage Band, iMovie, Inspiration Maps, and other apps. Students will explore the academic uses of Web 2.0, including blogging, wikis, and podcasting. Additional topics include responsible use of computers, computer security and privacy, social networking, and intellectual property rights in a digital world. This course has an Honors section with an online component.

#### **AP Computer Science Principles      Credit 1.0      Year SO/J/S**

The AP Computer Science Principles offers a multidisciplinary approach to learning the principles of computation. This course introduces students to the essential ideas of computer science and helps them to understand how computing and technology can influence the world around them. Students will explore the creative aspects of programming, algorithms, the Internet, cybersecurity, and computational thinking. As part of this course, students will be exposed to a broad range of computing tools and skills while creatively addressing real-world issues and concerns. *Prerequisite: Algebra I*

**Business Technology\*\***                      **Credit .50**                      **Semester J/S**

This one-semester elective for juniors and seniors gives students the opportunity to create a small business and follow their idea through production, marketing, and customer management. Students will work in groups and individually to create a business plan, make decisions about how to market their product/service, and develop a brand identity for their company. Students will design a logo and build a web site. They will advertise their product/service using business cards, brochures, flyers, and audio/video commercials. Students will create a budget and practice record keeping and expense management. The class also will develop skills for business etiquette, ethics, and customer relations. This course will use Microsoft Office, iMovie, Audacity, and Adobe Photoshop, Illustrator, and Dreamweaver.

**Intro to Programming I\*\***                      **Credit .50**                      **Semester J/S**

This one-semester elective for juniors and seniors gives students a background in computer logic and provides an introduction to object-oriented computer programming using Java. The course emphasizes fundamental programming concepts, object-oriented programming methodology, the basic principles of designing user-friendly applications, good programming style, proper code conventions, and problem-solving. This knowledge may be applied to other programming languages and makes collaborating with other team members easier. Students can expect hands-on activities, coding, debugging, running, and testing their own computer programs. This course serves as a preparation for further study in the IT/Computer Information Systems field.

**Intro to Programming II\*\***                      **Credit .50**                      **Semester J/S**

This one-semester elective continues programming concepts explored in Intro to Programming I. Students can expect hands-on activities, particularly designing a graphical user interface, coding, debugging, running, and testing their own apps. Using Apple's Xcode, students will be introduced to the programming language Objective C. Students will learn a wide range of programming techniques and the foundations of Object Oriented Programming. The basic principles of designing a user interface and creating an application that is user-friendly are emphasized. *Prerequisite: Intro to Programming I or teacher approval.*

**Exploring Issues in Technology\*\***                      **Credit. 50**                      **Semester J/S**

This one-semester elective course will explore specific issues raised by the ubiquity of computers and information technology in today's society. Students will critically and reflectively assess and argue morally-ambiguous issues in technology. Students can expect to read and respond to personally-relevant content from primary and secondary resources. This course will focus on both current events as well as ongoing issues related to privacy, cybercrime, and intellectual property.

\*\* Course may not be offered each year

## ENGLISH

### **Language and Literature I\*                      Credit 1.00      Year                      F**

Freshman English focuses on learning the basic elements of the genres of literature, the foundation for close reading and literary analysis in subsequent years. Examples of the literary genres (novels, plays, short stories, poetry, and non-fiction) are read and analyzed for structure and content. In composing academic and personal essays and multi-media projects, students work on skills such as diction, style, tone and structure, as well as punctuation and usage. English I also provides practice in vocabulary and test-taking skills. English I Honors provides a challenging list of readings and intense work in the essay form with an eye toward building AP close reading and analytic skills.

### **Language and Literature II\*                      Credit 1.00      Year                      SO**

English II focuses on writing academic essays, persuasive essays and a variety of prose forms. Students continue to work on writing skills such as word choice, style, tone and structure as well as punctuation and usage. In addition, students begin to learn research and presentation skills. Students read fiction and non-fiction American works from a variety of historical periods and genres. Examples of each genre are studied as models for expressive, creative, informative, and persuasive writing. Honors English II includes the study of a wider range of novels and essays, as well as more in-depth analytical writing assignments to prepare students for the junior year AP Language and Composition Course.

### **Language and Literature III                      Credit 1.00      Year                      J**

Students in English III analyze and interpret a variety of works in British Literature, and focus on understanding literature in its historical context as well as nonfictional works. Juniors regularly work on SAT preparation exercises and vocabulary. Students write expository, analytical, and argumentative essays, using the writing process to draft, revise, edit and review. During the second semester, students complete a formal paper: a literary analysis with MLA citation. Throughout the writing process, students receive instructional, technological, and library support.

### **AP Language and Composition                      Credit 1.00      Year                      J**

Students in English III AP Language and Composition analyze and interpret texts in British Literature with a focus on persuasive essays and speeches. As determined by the College Board, specific terminology related to rhetoric is emphasized; students identify persuasive strategies and techniques used by both classical and contemporary authors. In addition to text analysis, students also analyze image and film. Writing assignments are primarily expository, analytical and argumentative compositions, using the stages of the writing process to draft, revise, edit and review. Juniors regularly work on SAT preparation exercises and vocabulary. During the second semester, students complete a formal paper: a literary analysis with citation. Throughout the writing process, students receive instructional, technological, and library support. The AP English Language and Composition Exam is given early May.

\* Honors section offered



**Basic Design Credit .50 Semester 1 SO**

This course is an introduction to the fundamental processes, vocabulary and history of art making for students with demonstrated interest in art. Through a sequential series of two and three-dimensional projects, students explore the elements of art and the principles of design as tools for visual communication. Admission to this course is by invitation or teacher approval.

**Introduction to Art Credit .50 Semester 2 SO**

This course is designed to introduce students to basic art materials and media, and to familiarize them with the elements and history of art as the first step towards art appreciation and criticism. Students are exposed to a variety of experiences in the areas of drawing, painting, printmaking, three-dimensional construction, and pottery.

**Ceramics Credit .50 Semester 2 J/S**

This introductory course in pottery covers the basic techniques and materials available to the ceramic hand-builder. Students are taught the clay-shaping techniques of pinch, coil, and slab building, along with such decorating techniques as texturing, inlay washing, sgraffito, and glazing. Students are also encouraged to explore the possibilities of the learned techniques and to create original projects.

*Prerequisite: Teacher approval*

**Intro to Studio Techniques: Mark Making Credit 1.00 Year J/S**

This specialized course in drawing and painting techniques is for the serious art student with a clear commitment to art. Students prepare a body of qualified works in the following media: pencil, charcoal, pastel, pen and ink, watercolor, and acrylic. *Prerequisite: Teacher approval.*

**Introduction to Painting Credit 1.00 Year S**

Painting is the leading subject of this course. Students become familiarized with the mechanics of acrylic painting while they learn to interpret still-life, landscape and figure, first as separate areas of art, and later as components of more complex and personal creations. *Prerequisite: Teacher approval.*

**Studio Art (Independent Study) Credit 1.00 Year**

This course is offered to students already enrolled in Art II, who plan to continue their visual arts education in college. Students are required to prepare a more competitive portfolio by exploring further their technical and creative possibilities in drawing, and painting. *Prerequisite: Teacher approval.*

**Digital Photography Credit .50 Semester 1 J/S**

This one-semester course will allow students to expand basic digital photography skills into creative artistic photographs. Students will learn f-stops, shutter speeds, basic editing software, file types, basic rules for composition, image capture and transfer. They will also learn to create a digital photography portfolio of their work. Students will need to supply their own digital camera with manual.

**Digital Media\*\*** **Credit 1.00** **Year** **J/S**

This year long elective for juniors and seniors is designed to serve as a preparation for students interested in the graphic design and digital media. This course will provide a solid foundation for using the industry-standard design programs like Photoshop, Illustrator, InDesign, video editing software. Students will learn the basic principles and concepts of graphic design for both digital and paper media, as well as, video editing and creation. Students can expect hands-on activities, particularly creating their own digital art for print and digital display, along with creating video projects. Students may create a digital portfolio for college and job applications.

**Web Development and Design\*\*** **Credit .50** **Semester 1** **J/S**

In this one-semester elective, students learn how to design Web sites using the industry-standard web development software, Dreamweaver. Students will set up a web page, develop content, create and prepare photos and illustrations for Web viewing using Photoshop, lay out text and graphics, and publish to the Web. Course topics include using the Internet, using multimedia applications, graphic manipulation, using a digital camera and scanner, the basics of server software, creating dynamic Web pages, creating animations, using style sheets, and using Java applets and JavaScript to enhance Web pages.

**THEATRE ARTS**

**Musical Theatre: History & Performance\*\*** **FALL 2018** **Credit .50**  
**Semester 1** **SO/J/S**

Through books, video, audio, discussion, and live exploration this class will survey the development of musical theatre, one of America's great indigenous art forms. In addition, by looking at musical theatre from multiple perspectives – historical, cultural, political, social, aesthetic – the class will explore the ways in which musicals both reflect and embody values, tastes and trends in the cultures and eras from which they spring.

The focus will be primarily on the stage, but the influence and interplay between Broadway and Hollywood will also be discussed. Reflecting the influences of the cultural and social history of the United States, Broadway musical theater has grown into a mainstay of our musical history and culture as well as a hugely popular phenomenon and lucrative industry. Students will also have a chance to learn and perform songs from their favorite Broadway musicals.

**Introduction to Theatre Arts\*\*** **SPRING 2019** **Credit .50**  
**Semester 2** **SO/J/S**

This course will serve as an introduction to the theory and practice of the theatre and its arts and crafts (scenic design and production/prop construction/scene painting). The course will combine background and theory for each area and each section will entail working on a creative project that will demonstrate and implement what the student has learned. This is an introductory course that requires no previous theatrical background or training.

\*\* Course may not be offered each year

**Introduction to Acting\*\* FALL 2019 Credit .50 Semester 1 J/S**

This is a laboratory-style course which will introduce students to the basic techniques of acting. Students will participate in scene work, class exercises, and written analyses. Students will learn to develop the emotional aspects of characters and how to combine those aspects with physical action. Students will also learn how to evaluate theatrical products with specific focus on the skills they are learning.

**Women in Theatre\*\* SPRING 2020 Credit .50 Semester 2 J/S**

Once, theatre was an all-male profession. This course will introduce students to those women who made free access to the theatre profession possible. The course will examine cultural practices that led to both the inclusion and exclusion of women in theatre. There are two primary aims to this course: First, to provide students with an historical overview of women in playwriting, acting, and directing, and second, to see how contemporary social issues are applied to the practice, texts, and criticisms of the stage.

**Performing Arts**

**Dance Troupe Credit .50 Year F/SO/J/S**

The Mercy High School Dance Troupe is a select group who study ballet, pointe, modern, jazz, and choreography/improvisation in a regular regimen of an average of three days per week. Students also have the opportunity to work with guest artists and professionals in the dance profession. The program places dual emphasis on both the technical and artistic training of the students to provide them with not only a solid, comprehensive foundation, but also a stimulating and enjoyable artistic encounter. The co-curricular program is by audition, either at the Early Auditions for 8th graders or at the beginning of each school year. Performance opportunities include appearances with the Hunt Valley Symphony Orchestra, along with the annual formal concert in the beautiful setting of the Harry and Jeanette Weinberg Auditorium. Additional school performances and outside school and community events further add to the Dance Troupe performance experience.

**Apprentice Dance Company Credit .25 Year F/SO/J/S**

The Apprentice Dance Company offers an introduction to dance genres from the classical to the contemporary. Students will study dance from historical, social, ethnic, and performance perspectives. Students will develop specific movement skills fundamental to a technical foundation, and explore dance as a creative and performing art form. The Apprentice Dance Company provides the necessary training and foundation needed for the Mercy High School Dance Troupe.

**The Ensemble Players Credit .50 Year F/SO/J/S**

The Mercy High School Ensemble Players is the instrumental ensemble. This ensemble is a co-curricular and **membership is by audition** at the beginning of each school year. The Ensemble Players is a unique group showcasing all of our students who play wind, brass, string, and percussion instruments. In

\*\* Course may not be offered each year

addition to performances during the school year, the Ensemble Players have opportunities to perform with the Hunt Valley Symphony Orchestra and may audition to join the Hunt Valley Symphony Orchestra and play on a full-time basis.

**Footlighters** **Credit .25 Year F/SO/J/S**

The Mercy High School Footlighters is the theatre arts co-curricular offering and meets after school. Students in Footlighters will explore the various areas of the theatre arts including: basic acting, set construction, theatre marketing, technical theatre, and education theatre outreach. The students also support the Mercy High School theatre productions throughout the season.

**Madrigals** **Credit .50 Year F/SO/J/S**

***Membership in Madrigals is by audition*** at the beginning of each school year. Students will have the opportunity to study and perform various types of choral music including: classical, gospel, Broadway, pop, and spiritual music. In addition to performances during the school year, the Madrigal Singers have opportunities to perform with the Hunt Valley Symphony Orchestra and may join the Hunt Valley Chorale which rehearses on our campus.

**MUSIC**

**World Music** **Credit .50 Semester 1 SO/J/S**

In this course, an introduction to music is studied which includes pitch, melody, rhythm, texture, and instruments. Through text, recordings, and videos, the class will experience music from Africa, Asia, Europe, and the Americas to gain an understanding of both the basics of musical construction and the important roles music plays in the lives of people throughout the world.

**Introductory Music Theory\*\*** **Credit .50 Semester 1 J/S**

This course introduces students to the elements of music in the Western tradition. Topics of study will include the notation of pitch and rhythm, pitch designations, the keyboard, meters, major and pure minor scales and key signatures (up to four sharps/flats), and intervals (perfect, major and minor). Basic musicianship will be developed through exercises in ear training and rhythmic dictation.

**Advanced Music Theory\*\*** **Credit .50 Semester 2 J/S**

This course, a continuation of Introductory Music Theory, allows students to gain further mastery of the elements of music. Topics of study will include the remaining major and minor scales and key signatures (five or more sharps/flats), intervals (augmented and diminished), triads and their inversions, functional triads, seventh chords and their inversions, simple and compound meters, and chord progressions. Students will develop their aural, sight-singing, and written skills through exercises in listening, performance, and dictation (rhythmic and melodic). *Prerequisite: A final grade of "C" or better in Introductory Music Theory or teacher approval.*

**AP Music Theory\*\*** **Credit 1.00 Year S**

\*\* Course may not be offered each year



This course allows students to pursue studies equivalent to a first-year, college-level music theory course. Students will develop their aural, sight-singing, written, compositional, and analytical skills in order to deepen their understanding of the materials and processes of music. Students are provided in-class preparation for the AP Music Theory examination given in May. *Prerequisite: A final grade of "B-" or better in Advanced Music Theory or teacher approval.*

**Piano Class 1\*\*** **Credit .50 Semester 1 SO/J/S**

This course is designed for students who wish to develop basic piano playing skills, or expand on their existing skills. Time in class will be spent both on and off the keyboards. While playing, students will be working individually and in small groups to master the techniques of playing. There will also be time spent in group instruction on musical notation and theory. The purpose of this course is to develop a strong foundation of work habits and basic skills.

**Piano Class 2\*\*** **Credit .50 Semester 2 SO/J/S**

This course is designed for the intermediate level pianists who wish to further develop their piano skills. Time in class will be spent both on and off the keyboards. While playing, students will be working individually and in small groups to master the techniques of playing. There will also be time spent in group instruction on musical notation and theory. *Prerequisite: Piano Class 1 or Instructor Permission through playing exam.*

**OTHER ARTS OFFERINGS**

**Yearbook I\*\*** **Credit 1.00** **Year** **J/S**

Students participate in all aspects of yearbook production. Topics of study include theme selection, graphic design, writing, editing and marketing. Yearbook I is an excellent choice for any student interested in pursuing graphic design, journalism and/or marketing. Editors are selected from returning students. *Prerequisites: Teacher approval.*

**Yearbook II\*\*** **Credit 1.00** **Year** **S**

This course is open to seniors who have completed Yearbook I. Editors are peer selected from these students. They develop leadership and mentoring skills, oversee production and manage marketing strategies. *Prerequisites: Yearbook I and teacher approval.*

\*\* Course may not be offered each year

## MATHEMATICS

### Algebra I\* Credit 1.00 Year F

This course is designed to provide students with the mathematical foundation necessary to succeed in high school mathematics and science courses. Topics of study include equations, inequalities, exponents, polynomials, radicals, linear functions and problem solving. The Honors section will include the preceding topics as well as quadratic equations and functions, systems of linear equations, and data analysis. Students are expected to have solid skills in real number operations (including fractions, decimals, percentages, integers, order of operations, and evaluating expressions) before taking this course.

### Plane Geometry Credit 1.00 Year SO

A deductive system of Euclidean Geometry is developed by means of fundamental concepts such as points, lines, planes, and measurement. Some topics of study include: two-column proofs, polygons, congruency, right triangles, areas, volumes, and an introduction to trigonometry. The Honors section will include the preceding topics and will also include Law of Sines and Cosines, special angles in circles, and a more in-depth look at 3-dimensional figures. *Prerequisites: Algebra I or attaining a passing score on the Mercy High School's Geometry qualifying test.*

### Intermediate Algebra\*\* Credit 1.00 Year J

This course is designed to develop both the skills and understanding necessary for the second year of secondary school algebra. Topics include sets of numbers, algebraic expressions and models, linear equations and inequalities, absolute value equations and inequalities, operations and factoring of polynomials, linear relations and functions; systems of linear equations and inequalities, quadratic functions, powers, roots and radicals, as well as problem solving skills and applications of topics. *Prerequisites: Algebra I, Geometry, and department recommendation*

### Algebra II\* Credit 1.00 Year J

Second-year Algebra skills and concepts are developed in this course. Students will have an opportunity to increase problem-solving skills, solve systems of linear equations and inequalities, solve quadratic equations with irrational and complex solutions, study matrices and determinants as problem-solving tools, expand their understanding of functions and polynomials, as well as apply all of these topics in the context of real-life scenarios. The Honors section will include all of the preceding topics and will also logarithms, and rational expressions, equations and functions. *Prerequisites: Algebra I and Geometry, or passing Mercy High School's Algebra II qualifying test.*

### Financial Literacy\*\* Credit .50 Semester S

This elective course will provide experience with and mastery of the mathematics necessary to be financially knowledgeable and responsible. The emphasis will be on the ability to make calculations based on a set of directions, to choose appropriate calculations, and to verify results for accuracy. The

\* Honors section offered

\*\* Course may not be offered each year

focus will be on the mathematical content and skills associated with personal and consumer financial topics. These topics will include: decision making, earning and budgeting money, paying taxes, banking, saving, investing, spending, and managing credit. *Prerequisites: Algebra I, Geometry, Algebra II, and department approval.*

**Finite Mathematics** **Credit 1.00** **Year** **S**

This course is a survey course that includes a review of algebra and geometry topics, an introduction to statistics, sets and probability, linear programming, mathematics of finance and cryptology. *Prerequisites: Algebra I, Geometry, Algebra II, and department recommendation.*

**Introductory Pre-Calculus** **Credit 1.00** **Year** **J/S**

This course focuses on mathematical functions. The properties of polynomial, exponential and logarithmic functions will be explored. The study of trigonometric functions will include graphing, identities and solving triangles. Special topics will include binomial expansion, quadratic relations, and probability. *Prerequisites: Algebra I, Geometry, Algebra II, and department recommendation.*

**Statistics (Honors)** **Credit 1.00** **Year** **S**

This course focuses on strategies for summarizing, analyzing and interpreting data using both descriptive and inferential methods. Some topics include: the nature of statistics, unfavorable opinions and bias obstacles, descriptive statistics, probability concepts, probability distributions, and confidence intervals. *Prerequisites: Algebra I, Geometry, Algebra II, and department recommendation.*

**Pre-Calculus (Honors)** **Credit 1.00** **Year** **J/S**

This course focuses on mathematical functions, which are used to model and solve real-life problems. Advanced concepts from Algebra and Geometry are applied to the study of polynomial, rational, exponential, logarithmic, and trigonometric functions. This course will address each family of functions with analytical, numerical and graphical methods, as well as with technology. Selected topics from matrix algebra, analytic geometry and discrete mathematics will also be covered. *Prerequisites: Algebra I, Geometry, Algebra II, and department recommendation.*

**AP Calculus AB** **Credit 1.00** **Year** **J/S**

This course focuses on three major content strands from the Advanced Placement Calculus curriculum: (1) functions, graphs, and limits; (2) derivatives and their applications; and (3) integrals and their applications. The course will address each topic with analytical, numerical and graphical methods as well as with technology. Students are provided in-class preparation for the AP Calculus AB examination given in May. *Prerequisites: A grade of "B" or better in Pre-Calculus (Honors), and department recommendation.*

**AP Calculus BC** **Credit 1.00** **Year** **S**  
This course builds upon and extends the concepts from AP Calculus AB. Topics include additional techniques and applications of integration, infinite series, and other representations of functions (parametric, polar and vector). The course will address each topic with analytical, numerical and graphical methods as well as with technology. Students are provided in-class preparation for the AP Calculus BC examination given in May. *Prerequisites: A grade of "B" or better in AP Calculus AB, and department recommendation.*

**Introduction to Engineering\*\*** **Credit .50** **Semester J/S**  
This hands-on elective course will provide students an overview of the field of engineering. Students will explore various aspects within engineering disciplines and the daily work of engineers. Students will participate in group and individual activities to discuss ethics, identify needs, develop innovations, and engineer solutions to problems. Technology content, resources, and science and mathematics in authentic engineering situations. This course must be taken concurrently with a year-long mathematics course of Algebra II or higher and cannot be counted toward the graduation requirement in mathematics. *Prerequisites: Algebra I, Geometry, and department recommendation*

## **MENTOR PROGRAM**

**Mentor Program I** **Credit .50** **Semester 1 J**  
Through the direction and encouragement of an assigned mentor, a "wise adviser" who accepts the student as a protégé, the student is able to explore firsthand an individually chosen field of interest beyond the traditional academic setting. Students carry out their own programs with the assistance of their mentor. Assignments focus on educational planning, skills, and knowledge needed for the profession, occupational outlook, current topics in the profession, and a final reflective paper. The responsibility for the successful development and completion of the program rests with the student. The student must accumulate 30 hours each quarter, through visits with her mentor, independent research, and completion of assignments. *Application required.*

**Mentor Program II** **Credit .50** **Semester 2 J**  
Students who complete Mentor Program I have the option to continue an independent study with their mentor for an additional semester. The student must accumulate 30 hours each quarter, through visits with their mentor, independent research and completion of assignments. *Proposal required.*

\*\* Course may not be offered each year

## PHYSICAL AND HEALTH EDUCATION

### **Physical and Health Education I      Credit: 0.50 Semester F**

The focus of Physical and Health Education I places an emphasis on the integration of physical fitness concepts and strategies. Students will develop an understanding of the need for being physically fit and physical activity. Students will participate in a variety of activities that reinforce the fitness concepts learned in the classroom. Activities will include team sports, fitness games, self-assessments, partner activities and cooperative learning experiences. Testing is administered and individual fitness evaluations are completed on each student. The health section aims to heighten the students' awareness and understanding of current issues specific to adolescence. Topics include the menstrual cycle, feminine hygiene, nutrition, eating disorders, HIV, and sexually transmitted infections. Students will also learn the hands-only approach to CPR.

### **Physical and Health Education II      Credit: 0.50 Semester SO**

Physical and Health Education II emphasizes the benefits of lifestyle physical activity and cardiovascular fitness. Students will complete self-assessments and work towards improving or maintaining individual endurance. Students will participate in a variety of activities that reinforce the fitness concepts learned in the classroom. Activities will include team sports, fitness games, self-assessments, partner activities and cooperative learning experiences. Fitness testing is administered and individual fitness evaluations are completed on each student. The health section focuses on developing the students' awareness of the most common sexually transmitted infections as well as the implications of drugs and alcohol on the teenage body. Emphasis is placed on understanding high-risk behaviors and prevention. Students will also learn the hands-only approach to CPR.

### **Women and Health      Credit: 0.50 Semester 1 J/S**

Health-related topics in the spheres of mental, physical, emotional and social wellness are studied from the woman's point-of-view in order to foster an understanding of general health concepts. Students will gain an understanding of risky behaviors and how they impact all aspects of health. Content will include making responsible decisions, goal-setting, being a health-literate consumer, stress-management techniques, and the importance of life-long nutrition.

### **Women and Health: Special Topics      Credit: 0.50 Semester 2 J/S**

The focus of this course centers on relationships, reproduction, childbirth, and heredity. Current health-related topics related to women will also be studied. Students will also be required to research and give an oral presentation on a current women's health topic.

## RELIGION

*Note: Mercy's Religion curriculum reflects a full implementation of the United States Conference of Catholic Bishops' curriculum framework for secondary religious education.*

### **Introduction to Scripture** **Credit: 0.50 Semester 1 F**

[The Revelation of Jesus Christ in Scripture]

In the first semester students will discuss the revelation of Jesus Christ in scripture. While providing an overview of the book of the Hebrew Scriptures and Christian Testament, this course will focus on biblical exegesis. Students will gain a better understanding of a personal knowledge of God through natural and divine revelation. Salvation History and our Judeo-Christian roots will also be addressed.

### **Christology** **Credit: 0.50 Semester 2 F**

[Who is Jesus Christ?]

In the second semester the person of Christ will be examined through a study of the Trinity and the mystery of the Incarnation. A special focus will be placed on the teachings of Jesus and their impact on the lives of modern Christians.

### **The Paschal Mystery** **Credit: 0.50 Semester 1 SO**

[The Mission of Jesus Christ]

In the first semester students will examine the mission of Jesus Christ through a close study of the Paschal Mystery. Students also will learn of the roles of prayer and discipleship in personal redemption.

### **The Church** **Credit: 0.50 Semester 2 SO**

[Jesus Christ's Mission Continues in the Church]

The second semester focuses on the history and mission of the Church as the continuation of Christ's mission on Earth. Through analysis of the scriptural basis of the Church and its key doctrinal beliefs, students will be challenged to consider their own role within the Church and their responsibility for its future.

### **The Sacraments** **Credit: 0.50 Semester 1 J**

[Sacraments as Privileged Encounters with Jesus Christ]

In the first semester students will discuss how they can encounter Christ in a full and real way through the sacraments. Students will examine the scriptural and historical development of the Sacraments of Initiation (Baptism, Confirmation, and Eucharist), the Sacraments of Healing (Reconciliation and Anointing of the Sick), and the Sacraments at the Service of Communion (Holy Orders and Marriage), and how they serve as ongoing opportunities to encounter Christ throughout their lives.

### **Christian Morality** **Credit: 0.50 Semester 2 J**

[Life in Jesus Christ]

The second semester focuses on Catholic moral teaching. By doing in depth analysis of the basic precepts of a Christian lifestyle, both those found in Scripture (the Ten Commandments and the Beatitudes) as well as those handed down from the Church, students will be able to apply traditional teachings to moral decision making in their daily lives.

**Catholic Social Teaching** **Credit: 0.50** **Semester 1 S**

[Living as a Disciple of Jesus Christ in Society]

In the first semester students will be presented with an exposition of the social teaching of the Catholic Church and challenges students to apply gospel values to situations of social injustice. The course will begin with a discussion of God's plan for humanity and the Church's response to its role as promoters of charity and justice. Focus will be placed on the major themes of Catholic Social Teaching, foremost among them the life and dignity of the human person. The social dimensions of the Commandments and the Beatitudes will be addressed and will serve as foundations for analysis of specific issues of injustice.

**Exploring World Religions** **Credit: 0.50** **Semester 2 S**

[Ecumenical and Interreligious Issues]

The second semester will offer students an opportunity to expand their knowledge of faith traditions beyond their own. After a review of the foundation of the Catholic Church, students will briefly study the historical development of other Christian communities and the ecumenical movement that arose in light of the Second Vatican Council. The course will focus on the relationships between Christianity and the other monotheistic religions, Judaism and Islam. Non-monotheistic religions will also be addressed. The course will culminate with a discussion of the challenges of dialogue and unity among people of differing faiths.

**Service Learning** **Credit: 0.50**

As part of the Religion Program each student is required to participate in a service learning experience for 50 hours. This is an opportunity for the student to practice her faith by becoming directly involved in the real concerns her local community. In conjunction with the field work, students will meet to discuss their service experience and its impact on their lives. This program provides a unique learning opportunity for understanding the works of mercy as well as the works of justice.

## SCIENCE

### **Biology\*** Credit: 1.00 Year F

Biology examines life as a set of interacting systems: from atoms and biological molecules to cells, organisms and ecosystems. The program surveys the fundamentals of plant and animal biology, mammalian anatomy, and genetics. Students explore techniques and recent trends in biotechnology and discuss the implications and ethics of such. Participation in lab activities provides first-hand experience collecting and interpreting data. The course develops critical-thinking skills, scientific measurements and graphing. Inquiry based activities along with traditional learning approaches help prepare students for future course work in the sciences. Honors Biology requires more in-depth discussion, analysis and outside readings.

### **Principles of Biomedical Science** Credit 1.00 Year F

In the introductory course of PLTW Biomedical Science program, Mercy High School students explore concepts of biology and medicine to determine factors that led to the death of a fictional person. While investigating the case, students examine autopsy reports, investigate medical history, and explore medical treatments that might have prolonged the person's life. The activities and projects introduce students to human physiology, basic biology, medicine, and research processes while allowing them to design their own experiments to solve problems. *Prerequisite: Admission to Project Lead the Way Biomedical Science.*

### **Physical Science** Credit: 1.00 Year SO

Physical Science is a course where students study the relationships between matter and energy. This laboratory-based course intends to teach thinking skills and foster student self-confidence in the learning process and the ability to work closely with others. The goal of the course is twofold: to teach students about their world through basic science topics in chemistry and physics and to prepare students for more advanced science courses. The first portion of the year is an introduction to chemistry; students study topics including atoms, the Periodic Table, compounds, and chemical reactions. The second part of the year students learn about basic physics topics, including motion, force, waves, and energy. Because this is a content-oriented and skill-building course, topics are covered with a variety of approaches, including hands-on laboratory work, independent learning, group activities, inquiry based and traditional learning. Also included are problem-solving skills, study and test taking skills, decision-making, and critical thinking. *Prerequisites: Teacher recommendation and department approval.*

### **Introduction to Physics (Honors)** Credit 1.00 Year SO

Introduction to Physics is an Honors course for sophomores. Students are introduced to physics through discovery, understanding, and application. Students are building an understanding through exploration, developing compre-

\* Honors section offered



hension through demonstration and thought-provoking questioning, and applying skills and knowledge through a variety of inquiry-based activities and problem-solving. Laboratory work and activities are an essential part of the course. *Prerequisites: Teacher recommendation and department approval.*

### **Human Body Systems**

**Credit: 1.00 Year SO**

Students examine the interactions of human body systems as they explore identity, power, movement, protection, and homeostasis. Exploring science in action, students build organs and tissues on a skeletal mannequin; use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration; and take on the roles of biomedical professionals to solve real-world medical cases. *Prerequisite: Principles of Biomedical Science.*

### **Chemistry\***

**Credit: 1.00 Year J/S**

Chemistry is a science course that studies matter and the changes that matter may undergo. Students are directed to examine the intricacies of chemical composition and reactions while contemplating the balance and order that exist in the universe. Laboratory experiments and discussions provide opportunities to develop skills and techniques to reinforce classroom topics and prepare students for advanced topics in chemistry. Problem-solving plays an essential role in this course, providing students with the opportunity to apply algebraic concepts which they have learned to further investigate the chemical world. Honors Chemistry requires more advanced problem-solving techniques along with graphical and data analysis abilities. *Prerequisites: Biology, Algebra I, a Physical Science, teacher recommendation, and department approval.*

### **Environmental Science**

**Credit: 1.00 Year J/S**

Environmental Science to expose the student to the interrelationships between living and non-living components of the environment. The students will explore biological, chemical and physical properties associated with ecosystems and apply these principles to laboratory exploration. The course will explore alternate forms of energy, environmental pollutants and conservation while the political, social and ethical issues related to these topics will be discussed. Lab work will be a component of this course as well as community projects and outside readings. *Prerequisites: Biology, a Physical Science, teacher recommendation and department approval.*

### **Medical Interventions**

**Credit: 1.00 Year J**

Students follow the life of a fictitious family as they investigate how to prevent, diagnose, and treat disease. Students explore how to detect and fight infection; screen and evaluate the code in human DNA; evaluate cancer and prevail when the organs of the body begin to fail. Through real-world cases, students are exposed to a range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. *Prerequisite: Human Body Systems.*

\* Honors section offered

**Biology II (Honors) Credit: 1.00 Year S**

Biology II presents to the students a greater depth and understanding of major life science concepts. Designed to build upon the basic fundamentals of Biology and Chemistry, Biology II explores the workings of the cell, the transfer and utilization of energy, DNA, and the mechanisms behind variation. Emphasis is placed on genetics and biotechnology along with the ethical implications associated with this advancing knowledge. Independent laboratory work, formal laboratory reports, critical-thinking exercises, and outside readings are important components to the course. Students enhance their understanding of mammalian anatomy and physiology by performing a cat dissection in the spring. *Prerequisites: Biology and Chemistry with a minimum of a B- average and a cumulative GPA of 3.0, teacher recommendation, and department approval.*

**Physics (Honors) Credit: 1.00 Year S**

Physics (Honors) is a one-year college preparatory laboratory course designed for students who plan to pursue science or engineering fields in college, but open to all qualified students. Physics, the study of motion, energy, and forces, is quantitative in character and is closely linked with Mathematics. Considerable attention is given to problem-solving utilizing Trigonometry and Advanced Algebra. Laboratory experiments and reports are completed where students observe and analyze Physics in action. Topics include mechanics, kinematics, work and energy, waves, electromagnetic waves, electricity, magnetism, along with the fundamental topics of modern physics. *Prerequisites: Successful completion of Algebra II or higher, presently enrolled in Introductory Pre-calculus, Pre-calculus (H), or AP Calculus, teacher recommendation, and department approval.*

**AP Biology Credit: 1.00 Year S**

AP Biology enables students to pursue college-level biological studies while still in high school. The content of the course is designed to spend less time on factual recall and more time on inquiry-based learning of essential concepts as identified by the College Board. To foster a deeper level of learning students will be guided in their development of advanced inquiry and reasoning skills along with techniques in collecting data, data analysis and mathematical applications. Independent outside readings, laboratory reports and research will be assigned and the student should expect additional scheduled times during the school year where they will be asked to meet with the instructor for additional support. The AP Biology course is equivalent to a two-semester college introductory course in biology and will include a cat dissection in the spring to enhance student understanding of mammalian anatomy and physiology. The AP Biology Exam is offered in the late spring and is an expectation of the course. *Prerequisites: Biology and Chemistry with a minimum of a B average and a cumulative GPA of 3.0, teacher recommendation, and department approval.*

**Biomedical Innovation** **Credit: 1.00** **Year** **S**

In the final course of the PLTW Biomedical Science sequence, students build on the knowledge and skills gained from previous courses to design innovative solutions for the most pressing health challenges of the 21<sup>st</sup> century. Students address topics ranging from public health and biomedical engineering to clinical medicine and physiology. They have the opportunity to work on an independent project with a mentor or advisor from a university, medical facility, or research institution. *Prerequisites: Medical Interventions.*

**SOCIAL STUDIES**

**World Cultures\*** **Credits: 1.00** **Year** **F**

World Cultures is a year-long ninth grade course which provides students with an overview of the major political and cultural factors that have shaped our world today. Students will explore the geography, history, and culture of various civilizations in order to understand the peoples of the world and their contributions to civilization. Beginning with the ancient world and moving to the early modern era, students will have the opportunity to trace the evolution of Africa, the Middle East, Asia, the Americas, and Europe.

**American Government\*** **Credit: 0.50** **Semester 1** **SO**

This one-semester course is a study of the U.S. federal system. Students briefly review the early pre-constitutional political history of the country, explore the Constitution and key amendments, and learn about the three branches of the federal government. Students develop an understanding of the responsibilities of United States citizens and they learn to understand and analyze current events.

**U.S. History I: Federalism to Reconstruction\*\*\*** **Credit: 0.50**  
**Semester 2** **SO**

U.S. History to World War I is a one-semester survey course that examines the early history of the United States beginning with the administrations of Washington, Adams and Jefferson. Progressing chronologically, students examine the causes and effects of key events and the social, political and economic conditions that prevailed throughout the 19th Century. The influences and contributions of women, minorities and religious groups are integrated throughout the course. The Honors section of this course prepares students to take the AP U.S. History Exam at the end of their junior year.

\* Honors section offered

\*\*\* Honors/AP section offered

**U.S. History II: Industrialization to the Present\*\*\*** **Credit: 1.00**  
**Year J**

Twentieth Century U.S. History is a year-long survey course designed to acquaint students with the history of the United States from the end of the 19th Century to the present. Progressing chronologically, students examine the causes and effects of key events, movements and turning points of the Twentieth Century. The influences and contributions of women, minorities and religious groups are stressed. Environmental issues and the role of the nation in the global community are integrated throughout the course. The Honors/AP section of this course prepares students to take the AP U.S. History Exam at the end of the junior year.

**Global Issues** **Credit: 1.00** **Year J/S**

This year-long course challenges students to explore global trends in the 21<sup>st</sup> Century from multiple perspectives. Through the use of case studies and current events, students will analyze such topics as globalization, conflict, population growth, resource scarcity and waste issues in order to identify sustainable solutions to these increasingly common problems. This course will look at the role the United Nations and other governmental and non-governmental organizations play in the development and protection of human rights. Students will examine their personal cultural identity while gaining an appreciation for both Western and non-Western cultures and perspectives. Students also learn to recognize their own roles in creating and preventing some of these current and future problems.

**AP Psychology** **Credit: 1.00** **Year J/S**

This course stresses reading, writing and critical thinking within the context of scientific methodology and questioning. It is the equivalent of a college-level introductory psychology course. Students will be introduced to the major topical areas of psychology by studying core concepts and theories and applying relevant vocabulary. A year-long research project relating to adolescence will be a major focus of the course. Preparation for the AP exam is ongoing. *Prerequisites: A or A- at semester in English III and U.S. History II or teacher approval with reading comprehension and writing sample.*

\*\*\* Honors/AP section offered

## WORLD LANGUAGES

At Mercy High School students are required to take two consecutive years of the same language, either French or Spanish. Students are encouraged, but not required, to take a world language each year. If a student's mother tongue is one other than English, and they have attended at least one year at an academic institution in which instruction in the language other than English has occurred, the student is exempt from the world language requirement.

### **French I** **Credit: 1.00** **Year** **F**

Students practice listening, speaking, reading and writing French. Emphasis is placed on correct pronunciation, acquiring vocabulary, and understanding grammar. Students are introduced to an overview of the geographic, ethnic, and cultural diversity of the contemporary French-speaking world. The course is complemented by a series of video programs, online resources, CDs, DVDs, and TV-5.

### **French II** **Credit: 1.00** **Year** **SO**

This course is an extension of French I; students review the vocabulary and structure previously learned. They become proficient in listening, speaking, reading, and writing the language, extending their vocabulary base and studying new grammar. In addition, the history and culture of French speaking countries will be studied. This course is complemented by a series of video programs, online resources, CDs, DVDs, and TV-5. *Prerequisites: French I.*

### **French III (H)** **Credit: 1.00** **Year** **J**

Oral comprehension, speaking, reading and writing are emphasized in the context of new elements of grammar and culture. Readings are based on the history and culture of Francophone countries. This course is complemented by a series of video presentations and TV-5, and online resources. *Prerequisites: A final grade of C or better in French II and teacher approval.*

### **French IV (H)** **Credit: 1.00** **Year** **S**

Study of grammar continues with the mastery of the subjunctive mood. Oral expression and writing are heavily emphasized within the context of Francophone literature and works of women authors. The course is complemented by TV-5 and online resources. *Prerequisites: A final grade of C or better in French III and teacher approval.*

### **French V (H)** **Credit: 1.00** **Year** **S**

Students read, interpret and analyze selected francophone literary works. Throughout the course, proficiency in speaking, reading and writing are stressed. The course is complemented by TV-5 and online resources. *Prerequisites: Teacher approval.*

**Spanish I\*** **Credit: 1.00** **Year** **F**

Students practice listening, speaking, reading and writing as well as a basic comprehension of the Spanish Language. Students will learn some practical vocabulary needed for conversation and be able to express it both in spoken and written form. Students are also introduced to the people, culture and way of life of the Hispanic countries. The course is complemented by a series of video programs, CDs, DVDs, and online resources to develop audio-oral skills.

**Spanish II\*** **Credit: 1.00** **Year** **SO**

This course is an extension of Spanish I. Students will continue to learn practical vocabulary needed for conversation. They will be able to express as well as comprehend basic information in both spoken and written form. Their language skills will be strengthened through listening, speaking, reading and writing exercises, and other activities. In addition, the history and culture of Spanish-speaking countries will be studied. The course is complemented by a series of video programs, CDs, DVDs, computer software and online resources to further reinforce audio-oral skills. *Prerequisites: Spanish I.*

**Spanish III\*** **Credit: 1.00** **Year** **J**

Listening, speaking, reading and writing are practiced with vocabulary at the level of information, ideas and opinions. Previously learned grammatical patterns are reinforced, and the subjunctive is introduced and practiced. The course is complemented by a series of video programs, CDs, DVDs, computer software and online resources to further reinforce audio-oral skills. Students study the history and culture of Spain and Latin America. They read and analyze several literary selections covering a variety of topics. *Prerequisites: A final grade of C or better in Spanish II and teacher approval.*

**Spanish IV (H)** **Credit: 1.00** **Year** **S**

Spanish language skills are reinforced with vocabulary of life situations as well as from the perspective of analysis, synthesis, and evaluation. Grammar review continues including all verb tenses and moods. Audio-oral skills are exercised through CDs and video. Students study the history, geography, and culture of Spain and Latin America. Selections from Spanish and Latin American literature are read and discussed, including authors from Spain and all the Spanish-speaking regions: South America, the Caribbean, Mexico, and Central America. *Prerequisites: A final grade of C or better in Spanish III and teacher approval.*

**Spanish V (H)** **Credit: 1.00** **Year** **S**

This course offers the opportunity to advanced students to maintain and improve their language skills. The student will focus on universal tasks while improving and increasing her ability to understand and discuss current topics in the target language. The student will also further identify, present and debate contemporary issues in order to develop a more meaningful understanding of Spanish and empathy for its speakers and their culture. This course serves as preparation for the AP Spanish Language and Culture Exam. *Prerequisites: Teacher approval*

\* Honors section offered

## ONLINE LANGUAGE COURSES

Mercy High School students can enroll in online original credit courses through Educere, a leading K-12 virtual education services organization with school customers across 42 U.S. states and 22 countries. Register online at [www.educere.net](http://www.educere.net) using Educere course number and Mercy High School code V6R6S88V.

**Any registration for a course in Arabic or Chinese must be approved in advance by the chair of the World Languages Department.**

<b>Educere ID</b>	<b>Course Name</b>	<b>Cost*</b>	<b>Credit</b>	<b>Schedule</b>	<b>Provider</b>
DCFSP2069	Arabic: Level 1	\$891	Full	Self-Paced	Arab Academy
DCFSP2070	Arabic: Level 2	\$891	Full	Self-Paced	Arab Academy
DCFSP2071	Arabic: Level 3	\$891	Full	Self-Paced	Arab Academy
DCFSP4131	Arabic: Level 4	\$891	Full	Self-Paced	Arab Academy
DCFSP4132	Arabic: Level 5	\$891	Full	Self-Paced	Arab Academy
DCFSP4217	Chinese I	\$499	Full	Self-Paced	FOUNDERS (PS)
DCFSP4218	Chinese II	\$499	Full	Self-Paced	FOUNDERS (PS)
DCFSP4220	Chinese III	\$549	Full	Self-Paced	FOUNDERS (FL)

\*Cost is current at time of printing but may be subject to change.

