# *General Electives*
## Full Year Electives

**132 CP Introduction to Business via Entrepreneurship (1 Cr.)**                          **Grades 11 and 12**
This course takes a look at starting your own business.  Students will learn how to start, operate, and maintain a business encouraging creativity, innovation, critical thinking and problem solving.  Areas of concentration include entrepreneurship characteristics, idea generation, forms of business ownership, budgeting and accounting, ethics, human resource management, and marketing.  This class is a great start for anyone considering a business program at the post-secondary level.


**134 CP  Accounting I  (1 Cr.)**                          **Grades 11-12**
The aim of this course is to provide students with an exposure to the basic skills needed to provide accounting for a sole proprietorship and corporation.  Students with an interest in pursuing a career in business or accounting will be taught to record transactions in journals, post to ledgers, prepare financial statements, write and endorse checks, and prepare bank reconciliations.  The calculation and recording of a company's payroll will also be covered.   On-line working papers are used enabling each student to access assignments from any computer.


**144 CP  Accounting II  (1 Cr.)**                          **Grade 12**
This course is an extension of the principles acquired in Accounting I.  It is a valuable course for the college-bound student seeking a business, financial, or accounting degree.  A corporate business environment is used to teach the recording of uncollectible accounts, inventory valuation, accruals, deferrals, and depreciation of assets.  Specialized journals, ledgers, and financial statements are taught using working papers accessible from any computer.
*Prerequisite: Successful completion of Accounting I*


**246 CP Journalism/Photo-Journalism (1 Cr.)**                          **Grade 12**
This Journalism/Photo-Journalism course is a full year course that will create the monthly Blue and Gold Insider, the Yearbook, and Student Column for the local newspaper while generating updates for Marian social media.  Students will be introduced to the evolving balance between print and online news and ways they can complement each other to report different kinds of news and stories.


**335 H Spanish III (1 Cr.)        (Virtual – TBA)**                          **Grades 11**
Students acquire information and recognize the distinctive viewpoints that are available through the study of the language and it's culture. Students study the works of native Hispanic authors. Emphasis is placed on continuing the knowledge of the language, the correct use of grammar and oral communication skills using Internet sources and technology.
*Prerequisite:  85 in Honors Spanish II; 90 in CP Spanish II; approval of Spanish II teacher*


**336 CP  Spanish III (1 Cr.)           (Virtual – TBA)**                          **Grades 11**
Students continue the study of grammar and vocabulary.  There is an increased emphasis on the development of writing and conversation skills. Knowledge of the Hispanic world is expanded through the use of technology and Internet sources.
*Prerequisite for Spanish III:  approval of Spanish III teacher*


**341 H  French IV (1 Cr.)   (Virtual)**                          **Grade 12**
Students continue to increase their proficiency in the basic language skills of listening, speaking, reading, and writing through intensified review of grammar and vocabulary and the continued development of writing skills.  Literary classics are read and discussed.  French books, magazines, newspaper, and Internet sources are used to continue the study of French civilization and culture.
*Prerequisite:  80 in Honors French III; 85 in CP French III; approval of French III teacher*


**351 H  Spanish IV  (Virtual) (1 Cr.)**                          **Grade 12**
Students continue to increase proficiency in the basic language skills and in the knowledge of Hispanic culture and civilization.  An intensified review of grammar, writing original paragraphs, and the study of vocabulary are emphasized.  Reading selected articles from Hispanic newspapers and     magazines plus the use of Internet sources increase student awareness of  current events and contemporary issues in the Hispanic world.  Movies and videos from Spain, Latin America, and the United States are shown to supplement the textbook and to encourage class conversation in Spanish. Reading the novel El Cid in Spanish is required to complete the course. *Prerequisite – successful completion of Spanish III H.*

**441 H  Calculus  (1 Cr.)    Dual Enrollment                                    Grade 12**

This challenging course brings students to an understanding of the structure of mathematics and the real number system.  The course is invaluable to students who plan to major in math or science-related fields in college.  The topics considered are polynomials, exponential, logarithmic, and trigonometric functions.  Students also study advanced graphing, limits, derivatives, and integrals.  Applications relate to the physical sciences and engineering, business, economics, and the life sciences. *A graphing calculator is required.  Prerequisites:  85 in Honors Pre-Calculus;  93 in CP Pre-Calculus; Department approval*

**442 CP Calculus  (1 Cr.)                                           Grade 12**

This course is designed to build on skills introduced in the Pre-Calculus course.  The topics considered are limits, derivatives of a polynomial, rational, logarithmic and exponential functions, integrals, graphing and applications of these topics.  Applications include business, economics, life sciences, and general interest. *A graphing calculator is required.*
*Prerequisites:  successful completion of Pre-Calculus; Department approval*

**444 CP  Math and Reasoning Applications  (1 Cr.)                          Grades 11 & 12**

This course includes inductive and deductive reasoning, estimation, mathematical models, problem solving, set operations, Venn Diagrams, survey problems, arguments and truth tables, number bases in positional systems and computations, Investment topics and strategies,  cost of home ownership, voting methods, apportionment methods, and statistical study.
*A calculator is required.  Prerequisites: successful completion of Algebra II; Department approval*

**451 AP Calculus  (1 Cr.)    Dual Enrollment                                    Grade 12**

Senior students who have demonstrated the self-motivation necessary to succeed in challenging courses, and who have department approval are eligible for this course.  Following the curriculum prescribed by the College Board, the course includes elementary functions, limits, derivatives and their applications, antiderivatives, techniques of integration, the definite integral, and applications of the integral*.  Students approved for this course are required to take the AP Calculus exam.*  Satisfactory grades in this exam may qualify students to receive college credit for a semester course and to receive advanced placement in college. *A graphing calculator is required.  The College Board exacts a fee for the exam of approximately $95.    Prerequisite: A qualifying PSAT or SAT score;  Department approval*

**454 CP College Algebra (1Cr.)        Dual Enrollment                          Grade 12**

This course is designed for students planning on continuing their education in a non-mathematical/non-science field. It will build on Algebra skills and include a comprehensive treatment of topics needed for the mathematics placement test for college and a basic college mathematics course required for all four-year programs. The course balances theory, application, modeling and drill, covering a wide variety of disciplines.  *A graphing calculator is required.*
*Prerequisite:  Successful completion of Pre-Calculus; 93 in Math Applications; department approval*

**541 H  Physics (1 Cr.)     Virtual                                           Grade 12**

This course delves into the interactions of matter and energy, from the subatomic level of quarks and leptons to the astronomical level of the Big Bang and black holes.  The first part of the course focuses on the ordinary interactions seen in our everyday world, including Newton's Laws.  This course examines these topics in an in-depth manner applying quantitative methods and analyzing the implications of physical forces.  In addition, the course investigates the energy of waves and their fields, electromagnetism, nuclear reactions and subatomic physics.  The course takes you into the world of the very small to see how physicists discovered that the laws that govern tiny things explain how larger masses act while making connections to the everyday world.
*Prerequisites:  87 in Honors Chemistry; 87 in Honors Math; 93 in Regular Chemistry and Math; Department approval*

**542 CP  Physics  (1 Cr.)     Virtual                                           Grade 12**

This course covers a broad knowledge base including Newtonian laws of mechanics, gravitation, vectors, basic trigonometry, forces, motion, acceleration, energy, heat, and waves.  The student will keep a reflective journal in which research and investigations will be included to enrich the topics covered.  The student will also have the opportunity to locate current news articles that reflect physics in everyday life as it applies to the concepts presented.

**545 H  Anatomy and Physiology  (1 Cr.)                                    Grade 12**

This course is designed for students interested in a medical/health related career and examines the interrelationship between human anatomy and physiology. Emphasis is placed on terminology, the study of cells and some of their processes including protein synthesis, tissues, and the cardiovascular system.  Examination of the skeletal and muscular systems is supplemented with a cat dissection, live or virtual, in the second semester. Additional supplements include videoconferences of an autopsy, live knee replacement, a kidney transplant and sports medicine videoconference..
*Prerequisites:  90 in Honors Biology; 95 in Regular Biology;  department approval*

### 546 CP Biology II (1 Cr.)                                                           Grade 12

This course is designed for students interested in general biology; it is a continuation of Biology I. Topics includes all the systems of the human body and disease control. *Approval of Biology I teacher is required.*

### 547 H Organic Chemistry (1 Cr.)                                                     Grade 12

This course, a survey course of general organic chemistry principles, will cover the nomenclature and reactions of all the major kinds of organic molecules, from Alkanes to Polymers. The last part of the course will focus on biochemistry.
*Prerequisites: 87 in Honors Chemistry; 93 in Regular Chemistry; approval of Chemistry I teacher*

### 639 CP The American Civil War (1 Cr.)                                               Grades 11 and 12

This course will summarize and present the major events and battles related to the Civil War in chronological order. It will set forth the major political issues and philosophies that set the stage for the Civil War, sustained the conflict, and continue to linger on to the this day. It will discuss life on the home front and its effects on today's society. Finally, the reconstruction of the country will be discussed and it's after effects.

### 932 CP STEM Virtual & Robotics (1 Cr.)      - FULL YEAR COURSE                      Grade 11 or 12

In this course, students will be fully engaged in in-depth projects working individually and collaboratively in a variety of STEM project experiences which focus on "hands-on" project-based learning. Through each experience, students will come to the realization of how virtually important Science, Technology, Engineering, and Math is to our world in the 21st Century. This course is designed to be a student-centered experience to enhance each learning preference and/or style. Students will participate in activities such as building and engineering, coding and programming on an introductory level, designing and testing drones and utilizing 3D printing technology for the creation of parts and materials. Students will lead their own learning through self-discovery and become a representative of their chosen area of STEM throughout the year