

OUR LADY OF LOURDES REGIONAL SCHOOL

Course Offerings and Requirements



A Diocesan Catholic School

2022-2023

Revised May 2022

2001 Clinton Avenue

Coal Township, PA 17866 - 1699

PHILOSOPHY

Our Lady of Lourdes Regional School is a distinctly Catholic community, comprised of students, faculty, parents, and alumni working together to respond in faith to the educational mission of the Church. We present the message of salvation proclaimed by Our Lord Jesus Christ in the Gospel. Church documents, particularly **To Teach As Jesus Did** and **The Catechism of the Catholic Church**, guide the content and direction of the various curricula. Community, as a lived reality, is the heart of Catholic education at Lourdes. This philosophy carries over into the way we live and work within the family, the parish, the neighborhood, and even the global community. Lourdes is strongly committed to academic excellence and to the preparation of students to assume their roles as productive members of society. In addition to spiritual formation, this preparation encompasses the students' intellectual, personal, social, and physical development.

GOALS

SPIRITUAL DEVELOPMENT

- The students will have grown in their knowledge and appreciation of their Christian heritage and their Catholic identity.
- The students will have grown in their understanding of the Catholic faith and will be able to explain as well as practice it.

INTELLECTUAL DEVELOPMENT

- The students will have developed the ability to identify a problem, generate alternative solutions to the problem, and decide on an effective course of action.
- The students will have developed an appreciation for learning and an understanding that it is a life-long process.

PERSONAL DEVELOPMENT

- The students will have developed a sense of purpose and self-respect.
- The students will have developed the ability to make decisions in the light of Gospel values.

SOCIAL DEVELOPMENT

- The students will be able to appreciate cultural diversity, be tolerant of others' ideas and/or opinions, and be able to respond in a positive manner.
- The students will have developed an awareness of the social graces and the need to practice them in their daily living.

PHYSICAL DEVELOPMENT

- The students will have gained knowledge of and an appreciation for what contributes to a healthy body.
- The students will have graduated from Lourdes Regional with a favorable attitude toward physical activity, which can be continued into adult life

ADMISSION POLICY

Any student living within the territorial limits of Our Lady of Lourdes Regional School, which includes all of Northumberland County and parts of Montour and Columbia counties, may attend Lourdes Regional School provided admission requirements are met.

Lourdes Regional School admits students of any race, color, religion, national or ethnic origin, sex, age, or handicap to all rights, privileges, programs, and activities generally accorded or made available to its students.

Lourdes Regional School does not discriminate on the basis of race, color, religion, national and ethnic origin, sex, age, or handicap in its administration of its education and admissions policies, scholarship and financial assistance programs, athletic, and other school-administered programs.

Any Catholic or non-Catholic boy or girl who is promoted from the eighth grade of the Catholic regional schools is automatically a candidate to attend Lourdes Regional.

Any student transferring into Lourdes Regional from any public school or any Catholic school outside the territorial limits of Lourdes Regional must be interviewed by the Principal and/or the Vice Principal prior to approval.

An application form must be completed.

Any transfer student may be accepted provided his/her program adapts to the Lourdes Regional educational programs as established by the Administration and/or Board of Directors.

Any student may matriculate at Lourdes Regional whose parents or guardians' consent to the payment of fees and tuition and costs in accordance with payment schedules established by the school.

Tuition assistance is available.

Any student, regardless of creed or religion, must take the prescribed religion courses and attend services and programs regularly scheduled for the students.

A non-refundable registration fee must be paid upon application to the school.

TRANSFER OF STUDENTS

Students wishing to transfer to Lourdes Regional at any time must procure, complete, and submit an application. Upon receipt of the application, the Principal and/or the Vice Principal will schedule an interview with the applicant and the parents or guardians.

The interview will be used to determine how well the applicant will be able to benefit from the program of studies and the overall goals and philosophy of the school.

The applicant and parents or guardians should have school records with them to document the student's status.

Notification of acceptance or rejection will be given by the Principal and/or Vice Principal with any provisos deemed necessary.

The admission process for transfer students presumes that all records from the previous school, which include health records, academic transcript, and the like, will be received upon request and that a transfer of records has been signed by the parent or guardian.

LOURDES REGIONAL RESERVES THE RIGHT TO REFUSE ADMISSION TO ANY STUDENT.

ACADEMIC POLICIES AND PROGRAMS

Our Lady of Lourdes Regional School has developed a comprehensive curriculum of academic and non-academic programs. Lourdes offers a rigorous honors program. Course offerings are designed to meet the needs of students on all levels. Through the non-academic aspect of the school's curriculum, students are encouraged to explore other interests and talents through athletics, organizations, and clubs.

GRADUATION REQUIREMENTS

Graduation from Our Lady of Lourdes Regional School depends upon successful completion of all required courses as mandated by the Pennsylvania Department of Education, Our Lady of Lourdes Regional School, and the Superintendent of Education of the Diocese of Harrisburg. Completion of a course is to be interpreted as the receiving of a grade of at least 70 for the year.

A minimum of 26 credits accumulated throughout four years of study (Freshman through Senior year) is required for graduation from Our Lady of Lourdes Regional School. A student must, therefore, pass all subjects totaling no fewer than these 26 credits as listed.

SUBJECT	CREDITS
Religion	4
English	4
Mathematics	3
Science	3
Social Studies	4
Art or Humanities	2
Health and Physical Education	1
Electives	5

COURSE OFFERINGS

FRESHMEN	SOPHOMORES	JUNIORS	SENIORS
Religion I	Religion II	Religion III	Religion IV
English I	English II (H)	American Literature (H)	British Literature (H)
	English II (A)	American Literature (A)	British Literature (A)
Geometry (A)	Algebra II (H)	Precalculus/Trig (H)	Calculus (H)
Geometry (H)	Geometry (H)	Algebra II (H)	Precalculus/Trig (H)
Algebra I	Geometry (A)	Algebra II (A)	Stat. and Prob.
Algebra Concepts	Algebra I	Geometry (A)	Trigonometry
			AP Calculus (H)
Biology	Chemistry I (H)	Biology II (H)	Biology II (H)
	Chemistry I (A)		Physics (H)
		Anatomy & Physiology (A)	Anatomy & Physiology (A)
	Environ. Science	Environ. Science	Environ. Science
World History I	US History (H)	20 th & 21 st Cent. A. H. (H)	Government (H)
	US History (A)	20 th & 21 st Cent. A. H. (A)	Government (A)
	W. Society II (H)	Western Society III (H)	Western Society IV (H)
Principles of Biomedical Science (H)	Human Body Systems (H)	Medical Interventions (H)	Medical Innovations (H)
Spanish I	Spanish II	Spanish III (H)	Spanish IV (H)
French I	French II	French III (H)	French IV (H)
Physical Education	Physical Education	Physical Education	Physical Education
		Health II (1)	Health II (1)
			Computer Apps. I
		Computer Apps. I	Computer Apps. II (H)
		Accounting I	Accounting II
		Business Law	Business Law
	Personal Finance	Personal Finance	Personal Finance
		Child Development	Child Development

FRESHMEN	SOPHOMORES	JUNIORS	JUNIORS
	Studio Art	Studio Art	Studio Art
	Advanced Studio Art I	Advanced Studio Art I	Advanced Studio Art I
		Art Honors (H)	Advanced Studio Art II
			Art Honors (H)
			Career Art (H)
Concert Choir (1/2)	Concert Choir (1/2)	Concert Choir (1/2)	Concert Choir (1/2)
	Music Theory	Music Theory	Music Theory
		Musical Innovations	Musical Innovations
	Instrumental Music	Instrumental Music	Instrumental Music
	Bell Choir	Bell Choir	Bell Choir
Quarter Courses:	Quarter Courses:		
Fine Arts	Art History of our Anthracite Region		
General Music	Music Appreciation		
Computer	Health		
Career Preparation	Physical Education		

MINIMUM CREDIT REQUIRMENTS**NON – BIOMEDICAL**

FRESHMEN		SOPHMORE	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
Mathematics	1	Mathematic	1
Science	1	Science	1
World History	1	US History	1
Physical Education	¼	Physical Education	¼
Quarter Courses *	1	Quarter Courses	1
Electives/Languages	1	Electives/Languages	1
Total	7 ¼	Total	7 ¼
JUNIOR		SENIOR	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
20 th Century US History	1	Government	1
Science	1	Physical Education	¼
Mathematics	1		
Physical Education	¼	Science (optional)	1
Electives	1	Mathematics (optional)	1
Total	6 ¼	Total	5 ¼

*Students can opt out of Quarter Courses and take an Honors or Advanced Placement course from the Virtual High School.

TOTAL 26 CREDITS

It is strongly recommended that a student take at the minimum a two-year sequence in a foreign language. The science and math courses are optional in twelfth grade only if the student has already completed three credits both in science and in math. If the student chooses not to take these subject areas, he/she must select other courses to replace them. Students must take at least six major subjects.

MAXIMUM HONOR COURSES**NON – BIOMEDICAL**

FRESHMAN		SOPHOMORE	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion		Religion	
English		English	1
Mathematics	1	Mathematics	1
Science		Science	1
World History		US History	1
Physical Education		Physical Education	
Quarter Courses		Quarter Courses	
Electives/Languages *	1	Electives/Languages	2
Total	2	Total	5
JUNIOR		SENIOR	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion		Religion	
English	1	English	1
Mathematics	1	Mathematics (optional)	1
Science	1	Science (optional)	1
US History	1	Government	1
Physical Education		Physical Education	
Quarter Courses		Quarter Courses	
Electives/Languages *	2	Electives/Languages	3
Total	6	Total	7

*Students can opt out of Quarter Courses and take an Honors or Advanced Placement course from the Virtual High School.

TOTAL 26 CREDITS

It is strongly recommended that a student take at the minimum a two-year sequence in a foreign language. The science and math courses are optional in twelfth grade only if the student has already completed three credits both in science and in math. If the student chooses not to take these subject areas, he/she must select other courses to replace them. Students must take at least six major subjects.

MINIMUM CREDIT REQUIREMENTS**BIOMEDICAL**

FRESHMAN		SOPHOMORE	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
Mathematics	1	Mathematics	1
Science	1	Science	1
World History	1	Human Body Systems	1
Physical Education	¼	Physical Education	¼
Principals of Biomedical Science	1	Quarter Courses	¾
Electives/Languages *	1	US History	1
Total	7 ¼	Total	7
JUNIOR		SENIOR	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
Mathematics	1	Mathematics (optional)	
Science	1	Science (optional)	
20 th Century US	1	Government	1
Physical Education	¼	Physical Education	¼
Medical Interventions	1	Medical Innovations	1
		Elective	2
Total	6 ¼	Total	6 ¼

TOTAL 26 CREDITS

It is strongly recommended that a student take at the minimum a two-year sequence in a foreign language. The science and math courses are optional in twelfth grade only if the student has already completed three credits both in science and in math. If the student chooses not to take these subject areas, he/she must select other courses to replace them. Students must take at least six major subjects.

MAXIMUM HONOR COURSES**BIOMEDICAL**

FRESHMAN		SOPHOMORE	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion		Religion	
English		English	1
Mathematics	1	Mathematics	1
Science		Science	1
World History		Human Body Systems	1
Physical Education		Physical Education	
Principals of Biomedical Science	1	Quarter Courses	
Electives/Languages *		US History	1
Total	2	Total	5
JUNIOR		SENIOR	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion		Religion	
English	1	English	1
Mathematics	1	Mathematics (optional)	1
Science	1	Science (optional)	1
20 th Century US	1	Government	1
Physical Education		Physical Education	
Medical Interventions	1	Medical Innovations	1
		Elective/Language	2
Total	6	Total	7

TOTAL 26 CREDITS

It is strongly recommended that a student take at the minimum a two-year sequence in a foreign language. The science and math courses are optional in twelfth grade only if the student has already completed three credits both in science and in math. If the student chooses not to take these subject areas, he/she must select other courses to replace them. Students must take at least six major subjects.

COURSE DESCRIPTIONS

RELIGION

1100 RELIGION I - FRESHMEN - ACADEMIC - REQUIRED

Freshman religion is based on the essential beliefs of the Catholic Faith. The curriculum is developed following the systematic presentation of the *Catechism of the Catholic Church*: the Profession of Faith (Creed), the celebration of the Christian mystery (Liturgy and Sacraments), Life in Christ (Moral Living), and Christian Prayer.

1200 RELIGION II - SOPHOMORES - ACADEMIC - REQUIRED

Hebrew Scriptures

This course provides commentary, analysis, and reflection on the major stories of the Old Testament. The major themes and issues are illustrated through important places and events in the life of the Hebrew people. Key passages are used as reflections for incorporating biblical truths into students' everyday life situations.

Christian Scriptures

The curriculum, "*Jesus of History, Christ of Faith*," traces the path the early Christians took as they came to fuller knowledge of Jesus. The approach used is known as "Christology from below," a theological perspective that has been predominant in the Church since Vatican Council II. The goal is to help the students recognize the full humanity and divinity of Jesus.

1300 RELIGION III - JUNIORS - ACADEMIC - REQUIRED

Morality and Social Justice

The content of the course takes up the key themes in Christian Morality: ethical teaching of Jesus, the Commandments, sin, conscience, Church teaching on specific issues, the virtues, and Works of Mercy. The course combines these topics with a method of moral decision-making. Key moral issues of interest to teens today are analyzed and discussed using Christian Principles.

Second semester content develops the major issues of Social Justice from a faith perspective. Concepts such as respect for the human person and the integrity of creation are included in the Christian vision of justice. Scripture and the Church Documents are used to bring the faith element of justice into focus.

1400 RELIGION IV - SENIORS - ACADEMIC - REQUIRED

Church and Vocation

The Church and Vocation course presents a development of the Church through its 2000-year history focusing on the People of God who make up the Church. It challenges the students to take an active role in the Church community through the living out of a personal vocation of service to God and the Church. A personal vocation in the Church as single, married, lay, religious, or cleric only makes sense in the long tradition of the history of the Church. Active participation by the students in the Church is to be the end result of this year-long process.

ENGLISH**2100 ENGLISH I - FRESHMEN - ACADEMIC - REQUIRED**

Students will read and discuss works of literature from various genres. They will also read one Shakespearean drama and three novels. Students will demonstrate competency in grammar, usage, and spelling through verbal and written responses to literature and by beginning and maintaining a writing portfolio. Vocabulary study will emphasize contextual skills. Students will be introduced to research techniques and will complete a research paper.

PREREQUISITE: Student must have successfully completed 8th Grade English before being admitted to English I.

2200 ENGLISH II - SOPHOMORES - ACADEMIC

Students will continue the study of works of literature from various genres. They will read Mythology, and a selection of novels. Students will also continue work in various styles of composition. Vocabulary study will again emphasize contextual skills. Students will expand their knowledge of research techniques and will complete a research paper.

PREREQUISITE: Student must have successfully completed English I before being admitted to English II.

2220 ENGLISH II – WORLD LITERATURE - HONORS

Students will explore the literature of a variety of cultures from around the world. As in any of the Honors sections, emphasis will be on a more sophisticated response to literary topics and enhanced performance in composition. Students will expand their knowledge of research techniques and will complete a research paper. Vocabulary study will continue to emphasize contextual skills.

PREREQUISITE: Students must have successfully completed English I before being admitted to English II and have instructor approval.

2300 AMERICAN LITERATURE - JUNIORS - ACADEMIC

Students will continue the study of literary genres through samples drawn from the works of major American writers. Students will read at least two novels and various text selections. Vocabulary development will continue, as will the focus on students' writing and instruction in the research process.

PREREQUISITE: Student must have successfully completed English II before being admitted to Junior English.

2320 AMERICAN LITERATURE - JUNIORS - HONORS

Students will study American literary history through the writings of the major American authors. They will read at least three novels and various text selections. The focus on students' writing and instruction in the research process will continue. Emphasis will be on a more sophisticated response to literary topics and enhanced performance in composition

PREREQUISITE: Students must have successfully completed English II before being admitted to American Literature Honors and have instructor approval.

2400 BRITISH LITERATURE - SENIORS - ACADEMIC

Students will continue the study of literary genres through examples from major British writers. Students will read at least one novel and various text selections and two Shakespearean dramas. Vocabulary development will continue, as will the focus on students' writing. Students' experience in the research process will culminate at this level.

PREREQUISITE: Student must have successfully completed Junior year English before being admitted to Senior English.

2420 BRITISH LITERATURE - SENIORS - HONORS

Students will study the history of British literature through the writings of the major authors. They will read at least two novels and various text selections. The focus on students' writing will continue. Students' experience in the research process will culminate at this level. Emphasis will be on a more sophisticated response to literary topics and enhanced performance in composition.

PREREQUISITE: Students must have successfully completed American Literature before being admitted to British Literature Honors and have instructor approval.

SOCIAL STUDIES**3100 World History I - Freshmen - Required**

Examines the social, political, religious, intellectual, and technological developments from the early Renaissance (c.1450) to the present. Emphasis will be on Western Civilization.

3202 US History I (A) – Sophomore – Required

This course will include a brief overview of the settlement of North America before more closely studying British policies that led to independence and the creation of our nation. such topics as the evolution of the young republic, growing sectionalism, and a growth of interest in the West will be discussed. There also will be focus on the Civil War and its aftermath. The latter half of the course will attend to the importance of reconstruction, birth of American imperialism, the progressive movement, and events leading to World War I.

3204 US History I (H) – Sophomore – Required

This course will include a brief overview of the settlement of North America before more closely studying British policies that led to independence and the creation of our nation. such topics as the evolution of the young republic, growing sectionalism, and a growth of interest in the West will be discussed. There also will be focus on the Civil War and its aftermath. The latter half of the course will attend to the importance of reconstruction, birth of American imperialism, the progressive movement, and events leading to World War I.

The student will be required to function at a high level and to synthesize, analyze, and Evaluate materials, etc., that are presented at a more advanced level. At least two Papers/projects will be required. Key historical thinking skills such as causality, Chronology, etc., will be promoted with the intent of developing a multidisciplinary Skill set.

Prerequisite for Honors: Permission of instructor

3200 WESTERN SOCIETY II – Honors (Elective)

This course begins an advanced study of the course of Western society. Focused attention begins with the Renaissance and continues through the upheaval of the French Revolution, Napoleon, and the dawn of the new Europe.

Prerequisite for honors: World History I (grade of 88) and permission of instructor.

3240 WESTERN SOCIETY IV – ADVANCED – SENIORS HONORS (Elective)

This is an advanced course of study that is a continuation of Western civilization and focuses on the social, political, religious, intellectual, and technological aspects of contemporary issues and how they relate to events of the past and may be precursors of the future. Emphasis will be on Europe and the U.S.

Prerequisite: Instructor Approval

3250 WESTERN SOCIETY III Advanced - Juniors, Seniors – Honors (Elective)

This course continues the survey of Western civilization. One focus will be on Western policies of imperialism that led to unrest and war in the 20th century and still cause major repercussions throughout the world. Another focus will be on world changes that have occurred because of power shifts in what were previously known as Third World nations (e.g. China, India) and have resulted in global world of the 21st century.

Prerequisite: Instructor Approval.

3300 20/21st c. U.S. History - Juniors - Honors – Required

Students will study various aspects (social, political, religious, intellectual, technological, etc.) of the U.S. from the beginning of the 20th century to the present day. The course will address such topics as the Great Depression, the New Deal, the Cold War, etc., as well as military actions (e.g. WWI, WWII) social/intellectual dilemmas (e.g., Holocaust, Hiroshima's), etc.

Prerequisite: Instructor Approval

3330 20/21st c. U.S. History - Juniors - Academic– Required

Students will study various aspects (social, political, religious, intellectual, technological, etc.) of the U.S. from the beginning of the 20thc to the present day. The course will address such topics as the Great Depression, the New Deal, the Cold War, etc., as well as military actions (e.g. WWI, WWII) social/intellectual dilemmas (e.g., Holocaust, Hiroshima's), etc.

3401 GOVERNMENT - SENIORS - HONORS - REQUIRED

This course is an introduction to how government works and it is meant to encourage the development of crucial skills and habits necessary for participation within a democratic republic. One of the aims of this class is the promotion of civic competence. In addition to an introduction of politics, the course will also discuss contemporary world/national issues. There will be a focus on the Supreme Court and historic, as well as current cases.

Prerequisite: Instructor approval

3400 GOVERNMENT - SENIORS - ACADEMIC – REQUIRED

Emphasis is placed upon the study of and issues facing our national government. The following topics and concepts are covered: popular sovereignty, separation of powers, judicial review, etc. Focus is also placed on the Supreme Court and current cases before it, and on current events of international and national importance.

BUSINESS**4390 CAREER PREPARATION – FRESHMAN QUARTER COURSE**

This course focuses on the development of the student's understanding of career preparation and career development. Students will use handouts, websites, and reference materials to obtain information about career preparation. Emphasis will be on career interest planning post-secondary educational goals, job networking, and interview skills.

4300 PERSONAL FINANCE—SOPHOMORES, JUNIORS, SENIORS

We all need to manage our money. This class teaches practical steps to do that through videos, class discussion, and small group activities. Topics include getting rid of debt, managing money, and spending and saving wisely. Students will be exposed to the stock market through a simulation.

4320 ACCOUNTING I – JUNIORS, SENIORS – ACADEMIC – Offered 2023-2024

In this course students develop the ability to analyze and record transactions of a sole proprietorship and partnership type of business. They also learn to interpret the results of business organization and procedures and to understand the language of business. It is highly recommended that any student interested in studying any type of business course in college take this course because it serves as an orientation for advanced study in business.

4340 COMPUTER STUDIES I – JUNIORS, SENIORS – ACADEMIC – 1 CREDIT

This course will develop computer skills needed in higher education and the work. Students will engage in learning Google Suite software such as Google Docs, Sheets, and Slides. The basics of computers will be taught as well, including basic computer parts, printer setup, Windows OS navigation, and Chrome OS navigation. Students will also learn the basics of some programming languages such as JavaScript, Python, and HTML5.

4360 BUSINESS LAW – JUNIORS, SENIORS - ACADEMIC – Offered 2022-2023

This course teaches both criminal and civil law and how it applies to the individual in societal relationships.

4440 COMPUTER STUDIES II – SENIORS – HONORS – 1 CREDIT

This full-year course builds on the skills learned in Computer Studies I in the Google Suite (Docs, Sheets and Slides). Topics include computer hardware, operating systems, and programming.

Prerequisite: Computer Applications I and teacher approval

MATHEMATICS**5100 ALGEBRA I – ACADEMIC**

Concepts studied include: expressions, equations, and functions; properties of real numbers; solving, graphing, and writing linear equations and inequalities; exponents and exponential functions; polynomials and factoring. Focuses on core algebra skills at an academic pace.

Prerequisite: Math 8/Pre-Algebra

5200 GEOMETRY – ACADEMIC

Concepts studied include: tools of geometry; parallel and perpendicular lines; triangle congruence and relationships; quadrilaterals; proportions and similarity; and introduction to trigonometry. This is a course in Euclidean Geometry that follows a general understanding of Geometric concepts. Works at an academic pace.

Prerequisite: Algebra I and teacher approval

5220 GEOMETRY –HONORS

Concepts studied include: tools of geometry; reasoning and proof; parallel and perpendicular lines; triangle congruence and relationships; quadrilaterals; proportions and similarity; introduction to trigonometry; transformations; and circles. This is an in-depth course in Euclidean Geometry that requires a lot of rigorous application of problem solving. Works at an advanced pace.

Prerequisite: An average of 90 in Algebra I , a solid work ethic, and teacher approval.

5300 ALGEBRA II – ACADEMIC

Concepts studied include: a review of linear equations/functions and inequalities; systems of equations and inequalities; exponents and exponential functions; polynomials and factoring; quadratic equations/functions; radicals and geometry connections; rational equations and functions; introduction to probability and data analysis. This course works at an academic pace.

Prerequisite: Algebra 1 and Geometry

5320 Algebra II – Honors

Concepts studied include: quadratic equations/functions and factoring; radicals and geometry connections; rational equations and functions; introduction to probability and data analysis; polynomials and polynomial functions; rational exponents and radical functions. This is an in-depth course that requires a rigor and problem solving skills. Works at an advanced pace.

Prerequisite: Algebra 1, an average of 85 in Geometry Honors or 90 in Geometry Academic, a solid work ethic, and teacher approval.

5430 STATISTICS AND PROBABILITY - SENIORS - ACADEMIC

This course includes: frequency distribution, central tendency, mean, median, mode, probability distribution, standard normal curve, standard deviation as well as aspects of probability.

Prerequisite: Algebra I, Geometry, an average of 80 in Algebra II and teacher approval.

5440 Pre-Calculus/Trigonometry – Honors

This course studies advanced algebra topics to help prepare students for calculus. Concepts studied include: an in-depth review of linear, quadratic, and polynomial equations/functions and inequalities; exponential and logarithmic functions; rational functions; sequences and series; quadratic relations and conic sections (analytic geometry); trigonometric ratios and functions; trigonometric graphs, identities, and equations. This course works at a rigorous advanced pace.

Prerequisites: Algebra 1, Geometry, an average of 85 in Algebra II Honors or 90 in Algebra II Academic, a solid work ethic, and teacher approval.

5500 Calculus – Honors

This course studies differential and integral calculus. Concepts studied include: limits; derivatives; implicit differentiation; derivative applications; anti-derivatives; definite and indefinite integrals; summation; and applications of integration. This is an advanced course

Prerequisites: An average of 85 in Pre-Calculus/Trigonometry, a solid work ethic, and teacher approval.

5506 Calculus – AP - AB

This college level calculus course culminates with the Advanced Placement test in AB Calculus in May. The concepts of limits and continuity are developed into differential calculus, covering the derivative geometrically, numerically, and analytically. Derivatives of trigonometric, exponential, logarithmic and inverse functions, the chain rule, and implicit differentiation are studied. Applications of the derivatives include curve analysis, related rates, growth and decay, and velocities and accelerations. Second semester topics include: integral calculus; the computations of various Riemann sums and applications of integral calculus including topics such as areas between curves; rotations of solids and average value. All students must take the AP Calculus AB exam in May.

**Prerequisites: A minimum grade of 90% in Pre-Calculus Honors
IF YOU DO NOT MEET THE PREREQUISITES, YOU WILL NOT BE PERMITTED TO OVERRIDE.**

***A TI-84ce graphing calculator is required**

SCIENCE

6200 BIOLOGY I - FRESHMEN - ACADEMIC

Biology I will cover cellular, molecular, and genetic topics including modern lab techniques and theories. Students will study cellular structures and their functions (from environmental response to maintaining homeostasis), metabolism, and molecular and genetic topics (from protein production to family inheritance patterns.) The course will conclude with ecological studies. Laboratory experiments will compliment the course of study. National science standards focusing on STEM education will be addressed

6300 CHEMISTRY I - SOPHOMORES - ACADEMIC

Students will study the major concepts in modern chemistry. These topics include periodic relations, chemical synthesis, atomic structure, reaction progression; and topics such as thermochemistry, acid-base chemistry, and nuclear chemistry. Laboratory studies will be an important part of the learning process, developing critical thinking skills and data recording techniques. **Prerequisite: Successful completion of Biology I and Algebra I**

6320 CHEMISTRY I - SOPHOMORES – HONORS

Students will study the major concepts in modern chemistry. These topics include periodic relations, chemical synthesis, atomic structure, reaction progression; and topics such as thermochemistry, acid-base chemistry, and nuclear chemistry. Laboratory studies will be an important part of the learning process, developing critical thinking skills and data recording techniques. Further emphasis will be placed on individual research and current topics. This course will provide the necessary background to students who are considering a career in medicine or science. **Prerequisite: An average of 90 in Biology I, an average of 86 in Algebra I, and teacher approval.**

6340 ENVIRONMENTAL SCIENCE – SOPHOMORES, JUNIORS, SENIORS – ACADEMIC

Environmental Science will cover ecological topics like biomes, communities, populations, population growth, change and development, and pollution. Current local and global topics will be presented, and ways to improve those situations will be discussed and debated. Individual research options are available. Investigations will involve local areas in the community. Pennsylvania ecology will be studied. **Prerequisite: Successful completion of Biology I.**

6120 PHYSICS – SENIORS - HONORS

This course will introduce and investigate the basic concepts and principles of physics. It will place emphasis on historical development and mathematical derivation of theoretical concepts in physics, with a focus on concepts in mechanics. Presentation, laboratory investigations, problem solving, and individual research on current topics will compose the format of this class.

Prerequisite: Successful completion of Biology I, Chemistry I (academic or honors), Algebra I and II, and Geometry along with teacher approval.

6500 BIOLOGY II –JUNIORS, SENIORS – HONORS

An advanced course in Biology designed for the student who is interested in studying Biological Sciences at the next level. This course puts emphasis on detailed concepts of cellular biology, cellular division, genetics, and evolution. Other topics include plant biology and animal behavior. **Prerequisite: Average of 90 in Biology I, 87 in Chemistry I academic, and teacher approval.**

6550 ANATOMY AND PHYSIOLOGY – JUNIORS, SENIORS - ACADEMIC

This course deals with the structure and functioning of the human body. A macroscopic and microscopic approach will be used, integrating the anatomic structure with the function of various body systems (circulatory, respiratory, etc.). This is a preparatory course for students interested in the Allied Health areas.

Prerequisite: Successful completion of Biology I, Chemistry

FAMILY AND CONSUMER SCIENCES**7300 CHILD DEVELOPMENT – JUNIORS, SENIORS – ACADEMIC**

This course addresses the concepts related to the stages of human growth and development from conception through childhood. Focus will be on physical, social, emotional and intellectual development from birth to age 5.

LANGUAGES**8100 SPANISH I - FRESHMEN - ACADEMIC**

This course introduces the student to the structure of the Spanish language. Culture is also incorporated throughout the year. Instruction is presented in both Spanish and English. This course uses a variety of resources including a textbook as well as online learning tools to assist the students understanding of the basic concepts of the Spanish language. Students learn about various Spanish speaking countries, vocabulary, grammar, and culture. Approximately 12 topics are covered in the program along with varied outside activities. This course is designed for non-native Spanish speakers.

8120 FRENCH I - FRESHMEN - ACADEMIC

This course introduces the students to the French language and culture. The students learn a carefully defined vocabulary range and grammatical concepts that will enable them to read, speak, understand, and write French within reasonable limits. They learn to talk and write about themselves and their families, ask for information, make purchases, and interact in a variety of social situations.

8200 SPANISH II - SOPHOMORES - ACADEMIC

This course is a continuation of that which was introduced in Spanish I. Students will further their knowledge of present tense verbs and will begin using verbs in the past tense. They will also learn about direct, indirect, and reflexive pronouns. Vocabulary lessons will include the home, making and accepting invitations, food and drink, holidays and the human body. Students will apply reading listening and speaking skills in the classroom, while acquiring more information on Spanish culture. Spanish will be spoken frequently in class.

Prerequisite: An average of 78 in Spanish I and teacher approval.

8220 FRENCH II - SOPHOMORES - ACADEMIC

This course aims at strengthening and building on the skills acquired in French I. The students learn to describe people and things, to talk about their homes, to interact with others about leisure-time and vacation activities, to talk about health concerns, and to interact in a variety of social situations. The cultural aspects of the course expand and focus on the customs and traditions of the francophone world.

Prerequisite: An average of 78 in French I and teacher approval.

8300 SPANISH III - JUNIORS - HONORS

This course is a continuation of previously learned material, including present and preterit verbs, object pronouns, commands and a variety of vocabulary. They will build upon their knowledge of grammatical structures and will use vocabulary relative to the family, places around town, weather, school, etc. Students will continue to develop their speaking, reading and listening skills, and they will learn more about the Hispanic culture. Spanish will be spoken frequently in class.

Prerequisite: An average of 83 in Spanish II and teacher approval.

8320 FRENCH III - JUNIORS - HONORS

This advanced course provides an opportunity for students to build on the knowledge gained in French II and to sharpen their communication and comprehension skills. The students learn to talk about their daily routines, express emotions, give opinions, and make travel plans. The cultural emphasis is on the francophone world with its varied customs and points of interest.

Prerequisite: An average of 85 in French II and teacher approval.

8400 SPANISH IV - SENIORS - HONORS

Students will strive to become fluent in the Spanish Language. They will build upon their knowledge of grammatical structures and will increase their collection of vocabulary. Students will continue to develop their speaking writing, reading, and listening skills, and they will learn more about the Hispanic culture. Various projects, reading and speaking assignment will be included in the curriculum. Spanish will be spoken daily and students will be expected to ask questions and respond almost entirely in Spanish.

Prerequisite: An average of 85 in Spanish III or teacher approval.

8420 FRENCH IV - SENIORS - HONORS

This advanced course provides an opportunity for students to build on the knowledge gained in French III and to sharpen their communication and comprehension skills. The students will use functional language to interact socially, express opinions, and converse and write in French on high-interest and contemporary topics. The cultural emphasis is on French history, geography, art, music, literature, and science.

Prerequisite: An average of 85 in French III and teacher approval.

MUSIC

9010 MUSIC HISTORY – FRESHMAN QUARTER COURSE - REQUIRED

This is a required quarter course in which students will examine the development of musical styles throughout history by engaging in class discussions, listening activities, and projects. Emphasis is placed on the works of significant composers such as Mozart and Beethoven.

9020 MUSIC APPRECIATION – SOPHOMORE QUARTER COURSE - REQUIRED

This is a required quarter course in which students will study the history of popular music, such as rock and roll, hip-hop, and rap through listening and writing activities. Students will also discuss the ethics of sampling and will have the opportunity to create their own sampling projects.

9040 CONCERT CHOIR – ½ CREDIT

Choir is open to students who are interested in making music in a group setting. The ensemble will lead music at Mass and will perform Christmas and spring Concerts. Solo and small group opportunities, such as cantoring at Mass or performing a duet at a concert, are also available to those who are interested. Additionally, students may also choose to participate in Cabaret Night in the fall and the Musical in the spring. Piano students interested in accompanying the chorus are also encouraged to sign up for this class.

9060 MUSIC ELECTIVE--SOPHOMORES, JUNIORS, SENIORS

Students enrolled in the music elective class can design their own course by choosing from various musical interests such as:

--Music Theory: Students who opt for this course will learn and apply the foundations of music, including

scales, key signatures, chords, and inversions. Class projects include score analysis, composition, and playing chords on the guitar. This class is most beneficial to students who already participate in musical activities such as playing an instrument or singing.

--Instrumental Music: This is open to students who have previous experience with instrumental music.

Students will be required to submit practice journals and videos, and will have opportunities to perform at Mass, concerts, and other events.

--Composition: Composition is geared toward students who want to create their own music. Students enrolled in this course will learn the basics of music composition and will engage in several projects in order to produce original music.

Prerequisite: Prior experience with choir or instrumental music, or teacher approval.

9080 INSTRUMENTAL MUSIC

This class is open to students who have a background with instrumental music (ex. students with previous experience in band or who take private lessons). Students will be required to submit practice journals and videos, and will meet as a group once a week to rehearse in an ensemble setting. Private lessons may be available with the music teacher based on schedule availability. Instrumentalists will enhance the musical community at school by performing as needed at Mass, concerts, and other events.

Prerequisite: Previous instrument experience or teacher approval.

9081 BELL CHOIR

Bell choir is open to any student who is interested in making instrumental music in a group setting. The ensemble will meet once a week to rehearse. The bell choir will perform at select Masses and may also accompany the choir during concerts.

ART**9100 STUDIO ART - SOPHOMORES, JUNIORS, SENIORS – ACADEMIC**

This is a full-year hands-on studio art class. Students learn to produce art from a wide range of mediums they will be introduced to. Some assignments will include but are not limited to the following...Illustration, Painting, Sculpture, Woodburning, etc. Students will be challenged to use their new skills to be creative.

Prerequisite: A general interest in art; must have passed the ruler test from the year prior, and art teacher approval.

9110 FINE ARTS – FRESHMEN – QUARTER COURSE - REQUIRED

It is an energetic hands-on introduction to learning basic art mediums and techniques. Students will be working with pen and ink, acrylic paints, colored pencils, etc.

9210 ART HISTORY – SOPHOMORES – QUARTER COURSE - REQUIRED

This class will touch base with basic art terminology and will include creating art projects on the time frame we are focusing on.

9200 ADVANCED STUDIO ART I- JUNIORS, SENIORS - ACADEMIC

This is the next step up from Studio Art. You must have completed the Studio Art course the prior year to sign up for this class. We will be building upon the skills acquired in Studio Art.

Prerequisite: Must have passed the ruler test from the prior year, achieved a 85% overall average or higher, and art teacher approval.

9220 ADVANCED STUDIO ART II— SENIORS – ACADEMIC

This is the next step up from Advanced Studio Art 1. You must have completed Advanced Studio Art 1 the prior year to sign up for this class. We will be building upon the skills acquired from the prior year and focusing on projects that reflect the student's interests.

Prerequisite: Must have passed the ruler test from the prior year, achieved a 85% overall average or higher, and art teacher approval.

9240 CAREER ART – SENIORS - HONORS

This is a class for a student who wants to pursue art as a career. We will be developing a 10-piece art portfolio. Artwork will include illustration, sculpture, photography, painting, etc.

Prerequisite: Must have passed the ruler test from the prior year, achieved a 90% overall average or higher the previous years, have taken Studio Art, Adv. 1 and 2, and art teacher approval.

9270 ART HONORS – JUNIORS, SENIORS - HONORS

This advanced course provides in depth techniques on art mediums and hands on projects challenging the student's ability as well as learning the history of art and how it is applied in today's world. **Prerequisite: Must have passed the ruler test from the prior year, achieved a 90% overall average or higher the prior years, have taken Studio Art and art teacher approval.**

9282 YEARBOOK – SOPHOMORES, JUNIORS, SENIORS – PASS/FAIL

Students will create the Lourdes Yearbook. Tasks will include writing text, taking pictures, and graphic design. Students will need to organize information and meet deadlines.

BIO MEDICAL**9500 BIOMEDICAL SCIENCE – HONORS - FRESHMEN**

Principles of Biomedical Science (PBS) HONORS is a full-year 9th grade course in the Biomedical Science Program. This course serves to provide foundational knowledge and skills in fields such as biology, anatomy & physiology, genetics, microbiology, and epidemiology as well as engage students in how this content can be applied to real-world situations, cases, and problems. Through both individual and collaborative team activities, projects, and problems, students will tackle real-world challenges faced by biomedical professionals in the field. They will work with the same tools and equipment used in hospitals and labs as they engage in relevant hands-on work. Students will develop skills in technical documentation to represent and communicate experimental findings and solutions to problems. In addition, students will explore how connections to other disciplines such as computer science and engineering shape the future of medicine and practice collaboration techniques that will help them connect with professionals across any field.

Prerequisite: Application to the Biomedical Science Program

9520 HUMAN BODY SYSTEMS - HONORS - SOPHOMORES

Human Body Systems (HBS) HONORS is a full-year 10th grade course in the Biomedical Science Program. Students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases, and often play the role of biomedical professionals to solve medical mysteries. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Prerequisite: Successful completion of Principles of Biomedical Science

9530 MEDICAL INTERVENTION - HONORS - JUNIORS

Medical Interventions (MI) HONORS is a full-year 11th grade course that allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. The course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios, students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important role that scientific thinking and engineering design play in the development of interventions of the future. Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Prerequisite: Successful completion of Human Body System

9540 MEDICAL INNOVATION – HONORS - SENIORS

Biomedical Innovation (BI) HONORS In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community. Students will be asked to apply what they have learned in the previous three courses to solve unique problems in science, medicine, and healthcare.

Prerequisite: Successful completion of Medical Interventions

HEALTH/PHYSICAL EDUCATION

9800 HEALTH I – SOPHOMORES – QUARTER COURSE - REQUIRED

This is a required quarter course consisting of an introduction to the various systems of the human body, an overview of the symptoms and treatments of common health problems, an emphasis on self-responsibility for wellness, and a realistic approach to decision-making with regard to health related issues. Special consideration is given to the problems of drug and alcohol use in our society and the importance of developing positive, value-based attitudes toward God's great gift of the human body.

9810 PHYSICAL EDUCATION – ¼ CREDIT – FRESHMAN, SOPHOMORE, JUNIORS, SENIORS - REQUIRED

This required course promotes the development of basic skills in various sports. Rules and regulations, team play, strategy and officiating, sportsmanship and a positive approach to physical fitness as an important component of the human lifestyle are emphasized.

9820 HEALTH II - JUNIORS, SENIORS – 1 CREDIT

This course contains an in-depth look at key health issues and a focus on safety and first aid, including CPR certification.

Prerequisite: Health I and teacher approval.

VOCATIONAL/TECHNICAL SCHOOL

9993 VOCATIONAL-TECHNICAL SCHOOL – JUNIORS, SENIORS – 3 CREDITS

The Northumberland County Vocational School offers students in Northumberland County the opportunity of taking courses in various trade and technical programs. The learning and training experiences are real and current with today's workforce standards. These students attend Lourdes in the morning and the Technical school in the afternoon. Students are responsible for their own transportation to the Technical school. Courses offered are Health Occupation, Communication Electronic Technology, Protective Services, Occupational Child Care, Culinary Arts, Cosmetology, Computer Technology, Automotive Repair Welding, Collision Repair, Carpentry, and Electrical Construction.

9997 CO-OP WORK STUDY – JUNIORS, SENIORS – 3 CREDITS

Students can participate in work study programs. Students are responsible for finding and arranging their work assignments and providing their own transportation to their work site. Past assignments have been with contractors, emergency medical services, and hospitals, in both the mornings and afternoon.

VIRTUAL HIGH SCHOOL

The Harrisburg Diocese is a part of a consortium that provides on-line classes through VHS learning. Over 200 unique classes are available to students, on standard, honors, and advanced placement levels. Course offerings can be viewed at vhslearning.org/catalog. Students interested in taking online classes should enter their request on their course selection sheet. Summer courses are also available.