

# ***OUR LADY OF LOURDES REGIONAL SCHOOL***

## **Course Offerings and Requirements**



**A Diocesan Catholic School**

**2017-2018**

**Revised March, 2017**

**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 a 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 elementary 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.

Religion	4 credits
English	4 credits
Mathematics	3 credits
Science	3 credits
Social Studies	3 credits
Art or Humanities	2 credits
Health and Physical Education	1 credit
Electives	6 credits

**COURSE OFFERINGS**

FRESHMEN	SOPHOMORES	JUNIORS	SENIORS
Religion I	Religion II	Religion III	Religion IV
English I	World Literature (H)	American Literature (H)	British Literature (H)
	English II (A)	American Literature (A)	British Literature (A)
Geometry (A)	Alg. II/Trigonometry (H)	Precalculus (H)	Calculus (H)
Geometry (H)	Geometry (H)	Alg. II/Trigonometry (H)	Precalculus (H)
Algebra I	Geometry (A)	Algebra II (A)	Stat. and Prob.
Algebra Concepts	Algebra I	Geometry (A)	Trig/Analytic
Biology	Chemistry I (H)	Biology II (H)	Biology II (H)
	Chemistry I (A)	Physics (H)	Physics (H)
			Physics II (H)
	Environ. Science	Environ. Science	Environ. Science
World History I	World History II (H)	20 <sup>th</sup> & 21 <sup>st</sup> Cent. Amer. Hist. (H)	Govern./Economics
	World History II (A)	20 <sup>th</sup> & 21 <sup>st</sup> Cent. Amer. Hist. (A)	World History IV (H)
		World History III (H)	
Principles of Biomedical Science	Human Body Systems	Medical Interventions	Biomedical Innovations
Spanish I	Spanish II	Spanish III	Spanish IV
French I	French II	French III	French IV
Phys. Education I	Phys. Education II	Phys. Education III	Phys. Education IV
		Health II (1/2)	Health II (1/2)
			Computer Apps. I
		Computer Apps. I	Computer Apps II
		Accounting I	Accounting II
		Business Law	Business Law
	Personal Finance (1/2—Sem. 1)	Personal Finance (1/2—Sem. 1)	Personal Finance (1/2—Sem. 1)
	Business Financial Record Keeping (1/2—Sem. 2)	Business Financial Record Keeping (1/2—Sem. 2)	Business Financial Record Keeping (1/2—Sem. 2))
		Independent Living	Independent Living
			Advanced Cooking

<b>FRESHMEN</b>	<b>SOPHOMORES</b>	<b>JUNIORS</b>	<b>SENIORS</b>
		<b>Child Development</b>	<b>Child Development</b>
	<b>Nutrition (1/2—Sem. 1)</b>	<b>Nutrition (1/2—Sem. 1)</b>	<b>Nutrition (1/2—Sem. 1)</b>
	<b>Food Science (1/2 –Sem. 2)</b>	<b>Food Science (1/2 –Sem. 2)</b>	<b>Food Science (1/2 –Sem. 2)</b>
		<b>Nutrition II</b>	<b>Nutrition II</b>
	<b>Studio Art</b>	<b>Studio Art</b>	<b>Studio Art</b>
		<b>Advanced Studio Art I</b>	<b>Advanced Studio Art I</b>
			<b>Advanced Studio Art II</b>
	<b>Yearbook (H)</b>	<b>Yearbook (H)</b>	<b>Yearbook (H)</b>
<b>Concert Choir (1/2)</b>	<b>Concert Choir (1/2)</b>	<b>Concert Choir (1/2)</b>	<b>Concert Choir (1/2)</b>
		<b>Adv. Music Theory</b>	<b>Adv. Music Theory</b>
		<b>Adv. Music</b>	<b>Adv. Music</b>
<b>Quarter Courses:</b>	<b>Quarter Courses:</b>		
<b>Fine Arts</b>	<b>Art History of our Anthracite Region</b>		
<b>Music History</b>	<b>Music Appreciation</b>		
<b>Exploring Bus.</b>	<b>Career Preparation</b>		
<b>Personal Finance</b>	<b>Health</b>		

**MINIMUM CREDIT REQUIREMENTS**  
**NON - BIOMEDICAL**

FRESHMAN		SOPHOMORE	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
Mathematics	1	Mathematics	1
Science	1	Science	1
Social Studies	1		
Phys. Education	¼	Phys. Education	¼
Quarter Courses	1	Quarter Courses	1
Electives/Language	1	Electives/Language	1
<b>Total</b>	<b>7 ¼</b>	<b>Total</b>	<b>6 ¼</b>
JUNIOR		SENIOR	
SUBJECT	CREDIT	SUBJECT	CREDIT
Religion	1	Religion	1
English	1	English	1
U.S. History	1	Government	1
Science	1	Science (optional)	1
Mathematics	1	Mathematics (optional)	1
Phys. Education	¼	Phys. Education	¼
Medical Interventions	1	Biomedical Innovations	1
<b>Total</b>	<b>6 ¼</b>	<b>Total</b>	<b>6 ¼</b>

\* 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**

<b>FRESHMAN</b>		<b>SOPHOMORE</b>	
<b>SUBJECT</b>	<b>CREDIT</b>	<b>SUBJECT</b>	<b>CREDIT</b>
Religion	1	Religion	1
English	1	English	1
Mathematics	1	Mathematics	1
Science	1	Science	1
Social Studies	1	Human Body Systems	1
Phys. Education	¼	Phys. Education	¼
Principles of Biomedical Science	1	Quarter Courses	1
Electives/Language	1	Electives/Language	1
<b>Total</b>	<b>7 ¼</b>	<b>Total</b>	<b>7 ¼</b>
<b>JUNIOR</b>		<b>SENIOR</b>	
<b>SUBJECT</b>	<b>CREDIT</b>	<b>SUBJECT</b>	<b>CREDIT</b>
Religion	1	Religion	1
English	1	English	1
U.S. History	1	Government	1
Science	1	Science (optional)	1
Mathematics	1	Mathematics (optional)	1
Phys. Education	¼	Phys. Education	¼
Medical Interventions	1	Biomedical Innovations	1
<b>Total</b>	<b>6 ¼</b>	<b>Total</b>	<b>6 ¼</b>

**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**

#### **110 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.

#### **120 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.

#### **130 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.

#### **140 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**

#### **210 ENGLISH I - FRESHMEN - ACADEMIC - REQUIRED**

Students will read and discuss works of literature from various genres. They will also read one Shakespearean drama, two novels, and a unit on mythology. 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 8<sup>th</sup> grade English before being admitted to English I.

**220 ENGLISH II - SOPHOMORES - ACADEMIC**

Students will continue the study of works of literature from various genres. They will read one Shakespearean drama 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.**

**222 ENGLISH II – WORLD LITERATURE - HONORS**

Students will explore the literature of a variety of cultures from around the world. They will read at least one Shakespearean drama and a selection of novels. 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 in Academic English who wish to register for an Honors course must have an average of 90 at the time of course selection and must have the recommendation of the English teacher. Students already in an Honors course must have an average of 88 as well as the recommendation of the English teacher.**

**230 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 novel and text selections and one Shakespearean drama. 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.**

**232 AMERICAN LITERATURE - JUNIORS - HONORS**

Students will study American literary history through the writings of the major authors. They will read additional novel and text selections and a Shakespearean drama. 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 in Academic English who wish to register for an Honors course must have an average of 90 at the time of course selection and must have the recommendation of their current English teacher. Students already in an Honors course must have an average of 88 as well as the recommendation of their current English teacher.**

**240 BRITISH LITERATURE - SENIORS - ACADEMIC**

Students will continue the study of literary genres through examples from major British writers. Students will read novel and text selections and one Shakespearean drama. 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.**

**242 BRITISH LITERATURE - SENIORS - HONORS**

Students will study the history of British literature through the writings of the major authors. They will read novel and text selections and two Shakespearean dramas. 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 in Academic English who wish to register for an Honors course must have an average of 90 at the time of course selection and must have the recommendation of their current English teacher. Students already in an Honors course must have an average of 88 as well as the recommendation of their current English teacher.**

**SOCIAL STUDIES**

**310 World History I - Freshmen - Required**

Examines cultural, political, and intellectual foundations that shaped the story of mankind from Prehistory through the development of early civilizations through the Middle Ages. Emphasis will be on Western civilization.

**320 World History II - Sophomores - Honors**

Examines the social, political, religious, intellectual, and technological developments of Man from the early Renaissance to the present. Emphasis will be on Western civilization.

**Prerequisite for honors: World History I and instructor approval.**

**326 World History II - Sophomores - Academic**

Examines the social, political, religious, intellectual, and technological developments of Man from the early Renaissance to the present. Emphasis will be on Western civilization.

**325 World History III - Juniors, Seniors - Honors**

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 the Third World nations (e.g., China, India) and have resulted in the global world of the 21st century.

**Prerequisite for honors: Instructor approval.**

**330 20/21st c. U.S. History - Juniors - Honors – Required**

Student will study various aspects (social, political, religious, intellectual, technological, etc.) of the United States 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), etc.

**Prerequisite for honors: Instructor approval**

**333 20/21st c. U.S. History - Juniors - Academic– Required**

Student will study various aspects (social, political, religious, intellectual, technological, etc.) of the United States 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), etc.

**351 World History IV - Seniors - Honors**

This 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 the history of Europe and the U.S.

**Prerequisite: Instructor approval.**

**340 GOVERNMENT AND ECONOMICS - SENIORS - ACADEMIC - REQUIRED**

Emphasis is placed upon the study of 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.

The economics component will focus on important issues facing the national economy as well as the world economy. During the course, personal involvement within the economic arena will also be addressed. Class participation in the PA Stock Market Game is also a component of this course.

## **BUSINESS**

### **418 EXPLORING BUSINESS – FRESHMAN QUARTER COURSE**

General Business is a course that combines business and economic concepts with practical applications to help students explore business opportunities and to learn to make informed economic decisions in our global economy. This course will introduce students to the various Business courses offered at Lourdes.

### **421 CAREER PREPARATION – SOPHOMORE 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.

### **430 PERSONAL FINANCE-- SOPHOMORES, JUNIORS, SENIORS (1/2 CREDIT—Semester 1)**

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.

### **431 SAT PREPARATION – SOPHOMORES, JUNIORS, SENIORS (1/2 CREDIT – 1 SEMESTER)**

This course prepares students to take the SAT College Entrance Exam. Students will use self paced computer programs to prepare for the English and Math tests.

### **432 ACCOUNTING I – JUNIORS, SENIORS – ACADEMIC**

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. If the student is interested in Accounting as a major he should take it during junior year so that he can take Accounting II in his senior year. **Fee: \$5.00**

### **442 ACCOUNTING II – SENIORS – ACADEMIC**

This course thoroughly reviews the Accounting I cycle and provides the student with sound preparation for a business career. This course will teach the analyzing and recording transactions for a corporation. This course is an excellent foundation for further study in the accounting field. **Fee: \$5.00**

**PREREQUISITE: Must have completed Accounting I.**

### **434 COMPUTER APPLICATIONS I – JUNIORS, SENIORS – ACADEMIC – 1 CREDIT**

This course is designed to provide the student with a thorough knowledge of the five most widely used Microsoft Office 2007 Professional Suite applications; Word, Excel, PowerPoint, Publisher, and Access. This course will develop computer skills needed in higher education and the work place. **Fee: \$25**

### **436 BUSINESS LAW – JUNIORS, SENIORS - ACADEMIC**

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

**438 BUSINESS FINANCIAL RECORD KEEPING – SOPHOMORES, JUNIORS, SENIORS--1/2 CREDIT—Semester 2**

This course will give the student insight to the business world. It might influence them in the choice of a career. It is a basic course that might lead them to choose Accounting as an elective in their Junior or Senior year.

The course will cover topics such as: record keeping for retail charge sales, preparing customer statements, accounts receivables, purchasing, accounts payable, using different journals, cash receipts, cash payments, sales, purchases, general journal accounts, balance sheets, income statements and payroll records.

**444 COMPUTER APPLICATIONS II – SENIORS – HONORS – 1 CREDIT**

This full-year course builds on the skills learned in Computer Applications I in the Microsoft Office 2007 Professional Suite (Word, Excel, PowerPoint, Publisher, and Access). In addition, Web 2.0 tools and Web Page design programs are explored. Topics include computer hardware, operating systems, and computer history.

**Fee: \$25**

**PREREQUISITE: Computer Applications I and teacher approval**

**MATHEMATICS**

**500 ALGEBRAIC CONCEPTS - FRESHMEN - ACADEMIC**

This course will be offered to those students who need to improve their mathematical background with the intention that the student will be able to function in Algebra I environment the following year. The basic concepts of Algebra I are introduced in short lessons presenting manageable bits of material.

**510 ALGEBRA I – ACADEMIC**

Concepts studied include: solving graphing and writing linear equations/functions; solving and graphing linear inequalities; exponents and exponential functions; and may cover some probability and data analysis time permitting. Problem solving is applied to all topics.

**520 GEOMETRY - ACADEMIC**

This is a course in Euclidean Geometry and it is intended for the average student in mathematics. Concepts studied include: basic tools of geometry; the study of parallel and perpendicular lines; congruency and other relationships in triangles; quadrilaterals; proportions and similarity; and some basic trigonometry, time permitting. Problem solving is applied to all topics.

**PREREQUISITE: Algebra I and teacher approval**

**522 GEOMETRY –HONORS**

This is an in-depth course in Euclidean Geometry and it is intended for the student who is interested in mathematics and who has demonstrated an aptitude for advanced mathematics in earlier grades. Concepts studied include: basic tools of geometry; proof; the study of parallel and perpendicular lines; congruency and other relationships in triangles; quadrilaterals; proportions and similarity; a basic introduction of trigonometry; and circles. Other topics are available, time permitting. Problem solving is applied to all topics.

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

**530 ALGEBRA II - ACADEMIC**

Concepts studied include: graphing and solving quadratic functions; factoring; polynomials; rational exponents and radical functions; exponential and logarithmic functions; rational functions; and data analysis and statistics, time permitting. Problem solving is applied to all topics.

**PREREQUISITE: Algebra I, Geometry, and teacher approval.**

**532 ALGEBRA II/TRIGONOMETRY - SOPHOMORES, JUNIORS - HONORS**

This course is a continuation of Algebra I, designed to include an in-depth study of: properties of real numbers; linear open sentences, and their graphs; relations and functions, polynomials; factoring quadratic

expressions; equations and functions; rational expressions and equations; operations involving radicals; complex numbers; matrix algebra; and the trigonometric functions.

**PREREQUISITE: Sophomores - 92 in Algebra I, 88 in Honors Geometry to be taken before or concurrently, and teacher approval. Juniors - 90 in Algebra I, 88 in Honors Geometry, and teacher approval.**

#### **540 TRIGONOMETRY - ACADEMIC**

Concepts studied include: sequences and series; quadratic relations and conic sections; trigonometric ratios and functions; and trigonometric graphs, identities, and equations. Other topics are available, time permitting. Problem solving is applied to all topics.

**PREREQUISITE: Algebra I, Geometry, and Algebra II, and teacher approval.**

#### **542 TRIGONOMETRY/ANALYTIC GEOMETRY - SENIORS - ACADEMIC**

Trigonometry involves the study of periodic functions. The concepts studied include graphing, reduction formulas of the function, identities, inverse circular functions, applications of functions to triangles, the use of polar coordinates, and complex numbers. Analytic Geometry focuses on the study of the line and conic sections. This course is suitable for students who will study some mathematics in college.

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

#### **543 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.**

#### **544 PRECALCULUS - JUNIORS, SENIORS - HONORS**

This course is an analytic examination of functions. The course is comprised of the algebra of real and complex numbers, polynomials, Trigonometry, Analytic Geometry. Polynomial, exponential, and logarithmic functions, as well as Probability, are also included.

**PREREQUISITE: Algebra I, 88 in Honors Geometry, 90 in Algebra II/Trigonometry. Juniors who have completed a course in Trigonometry and have an average of 86 and teacher approval.**

#### **550 CALCULUS - SENIORS - HONORS**

This is a course in differential and integral calculus. Differential calculus is comprised of limits, derivatives, implicit differentiation, and related word problems. Integral calculus is comprised of the anti-derivative, the definite and indefinite integral, special functions and applications using integration. Students are prepared for and may elect to take the advanced placement AP Calculus exam. A basic knowledge and use of a graphing calculator is essential.

**PREREQUISITE: An average grade of 88 in Precalculus and teacher approval.**

### **SCIENCE**

#### **620 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. **Lab Fee \$20.00**

#### **630 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. This course will provide the necessary background to students who are considering a career in medicine or science. **Lab Fee \$20.00**

**PREREQUISITE: Successful completion of Biology I and Algebra I**

### **632 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. **Lab Fee \$20.00**

**PREREQUISITE: An average of 90 in Biology I, an average of 80 in Algebra I, and teacher approval.**

### **634 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. **Lab Fee \$20.00**

**PREREQUISITE: Successful completion of Biology I.**

### **642 PHYSICS – JUNIORS, 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. **Lab Fee \$20.00**

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

### **644 PHYSICS II-SENIORS-HONORS:**

This course will investigate principles and concepts of physics, specifically in the fields of Electrostatics, Sound, and Optics. This course will build on the concepts and skills learned in Physics I, where the focus was on mechanics. Course topics include Electrostatics, DC circuits, Mechanical Waves and Sounds, Thermodynamics, Magnetism and Electromagnetic Induction, Geometrical and Physical Optics and Nuclear Physics. A lab component utilizing Vernier sensors and equipment will be wrapped into the daily course. **Lab Fee \$20.00**

**PREREQUISITE: Successful completion of Physics I and Precalculus (Precalculus may be concurrent).**

### **650 BIOLOGY II – SOPHOMORES, JUNIORS, SENIORS – HONORS**

The course of study will focus on anatomy and physiology. The different systems of the body will be studied in detail to prepare students interested in medical careers, exercise science, and other science fields. Dissection will be used to help gain a better understanding of the intricacies of the human body. **Lab Fee \$20.00**

**PREQUISITE: Average of 90 in Biology I, average of 84 in Chemistry I honors or 87 in Chemistry I academic, and teacher approval. Sophomores with an average of 94 in Biology I and concurrent Chemistry I.**

**FAMILY AND CONSUMER SCIENCES****722 NUTRITION—SOPHOMORES, JUNIORS, SENIORS – 1/2 CREDIT –SEMESTER 1**

This course is designed to teach students basic nutrition knowledge needed to help them make wise food choices now and throughout life. The course will stress the value of identifying and controlling the amount of sugar, salt, and fat in the diet by exploring the six nutrients. Cooking labs will reinforce the purpose of the course. **Lab Fee \$20.00**

**725 NUTRITION II – Juniors, seniors**

Nutrition II takes students further into the study of the science of nutrition exploring the link between diet and disease. The course will cover topics such as Food Allergies and Intolerances, and Dietary Supplements and Functional Foods. Students will complete an in depth examination of the role of nutrition in Diabetes, Cancer and Heart Disease the semester will conclude with the exploration of nutrient-gene interactions in health and disease.

**Prerequisite Nutrition I, Wellness**

**724 WELLNESS—SOPHOMORES, JUNIORS, SENIORS – 1/2 CREDIT –SEMESTER 2**

This course helps students to develop a healthy lifestyle that combines sensible eating with regular exercise. Topics covered include: nutrition guidelines, weight control, stress and chronic health problems, life- span nutrition and eating patterns. Cooking labs will reflect the objectives of the course. **Lab Fee: \$20.00**

**730 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.

**732 INDEPENDENT LIVING - JUNIORS, SENIORS - ACADEMIC**

This course helps to prepare students how to handle day-to-day responsibilities of living. It is designed to develop skills in consumer and home management with emphasis on food preparation. It includes a study of varied foods, meal planning, table service, comparison shopping, with an emphasis on how to prepare nutritious foods. Laboratory experiences will include all food areas concluding with a formal dinner.

**745 FOOD SCIENCE- JUNIORS, SENIORS-ACADEMIC**

This course allows students to understand food composition and the chemistry of foods by conducting experiments with foods and recipes. Students will be able clarify the role of specific ingredients in recipes.



## **LANGUAGES**

### **810 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.

### **812 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.

### **820 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 or teacher approval.**

### **822 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.**

### **830 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 or teacher approval.**

### **832 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.**

**840 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.**

**842 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

**901 MUSIC APPRECIATION – FRESHMAN QUARTER COURSE - REQUIRED**

This is a required quarter course emphasizing the fundamentals of music including meter, rhythm, note reading, simple intervals, and chords. Students will gain firsthand experience with melody and harmony while playing the guitar.

**902 MUSIC HISTORY – SOPHOMORE QUARTER COURSE - REQUIRED**

This is a required quarter course, which examines the development of musical forms and styles throughout the various periods of music history. A special emphasis is placed on significant composers and their works.

**904 CONCERT CHOIR – ½ CREDIT**

Performs choral music of varied styles and periods. Students are required to participate in both the Christmas and Spring Concerts. After school sectional rehearsals are also required. Piano students interested in accompanying the chorus are encouraged to sign up for this class.

**907 ADVANCED MUSIC THEORY – 1 CREDIT—JUNIORS, SENIORS**

This course is a continuation of Music Theory I and will also include ear training, rhythmic and melodic dictation, and sight singing.

**This course is offered in odd-numbered years (ex: 2018-2019)**

**908 ADVANCED MUSIC – 1 CREDIT—JUNIORS, SENIORS**

This course will include learning how to play woodwind, brass and percussion instruments. Students will be able to perform simple melodies on each instrument that is found in a band. While learning how to play each instrument, students will study and learn how sound is created with each instrument. Students will also learn the basic techniques in conducting band, orchestra, and choir music.

**This course is offered in even-numbered years (ex: 2017-2018)**

## ART

### **910 STUDIO ART - SOPHOMORES, JUNIORS, SENIORS – ACADEMIC**

This is a full-year hands-on studio art class. Students learn to “see” and “produce” the way artists do. A wide range of mediums and techniques are explored. Assignments that students will experience can include illustration, painting, sculpture, and wood-burning, to name a few. Students will be challenged to use their new skills to be creative. **Fee: \$25.00**

**PREREQUISITE: A general interest in art; art teacher approval.**

### **911 FINE ARTS – FRESHMEN – QUARTER COURSE - REQUIRED**

This is a required quarter course for freshmen. It is an energetic hands-on introduction to the art making process. Students will have the opportunity to work with various mediums and materials including collage, fiber arts, pottery, colored pencils, dyes, and more. **Fee: \$6.00.**

### **921 ART HISTORY OF OUR ANTHRACITE REGION – SOPHOMORES – QUARTER COURSE - REQUIRED**

This class will teach the basic terminology of what the miners back in the day went through. We will develop art based upon the anthracite region we live in. **Fee: \$2.00**

### **920 ADVANCED STUDIO ART I- JUNIORS, SENIORS - ACADEMIC**

This is a full-year, hands-on studio art class. This class builds on the skills acquired in STUDIO ART. Assignments that students will experience can include micrography, acrylic painting, wire sculpture, and model design, to name a few. **Fee: \$25.00**

**PREREQUISITE: Studio Art; art teacher approval.**

### **922 ADVANCED STUDIO ART II—JUNIORS, SENIORS – ACADEMIC**

This is a full-year hands-on studio art class. This class builds on the skills acquired in ADVANCED STUDIO ART I. Assignments that students experience will reflect the students’ interests.

**PREREQUISITE: Advanced Studio Art I; art teacher approval.**

### **928 YEARBOOK – SOPHOMORES, JUNIORS, SENIORS - HONORS**

This advanced course provides an opportunity for students to build a knowledge of page layout design, photography, editorial writing, etc.

The students will need to work together to keep the design consistent throughout the book and will be graded on that, as well as taking on multiple tasks throughout the year such as fund raising, selling advertisements, being a photographer at specific events, etc.

**PREREQUISITE: Must have teacher's approval.**

### **HEALTH/PHYSICAL EDUCATION**

#### **980 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.

#### **981 PHYSICAL EDUCATION – ¼ CREDIT – REQUIRED FRESHMAN, SOPHOMORE, JUNIORS, SENIORS**

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.

#### **982 HEALTH II - JUNIORS, SENIORS – ½ 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**

#### **OP001 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.