

# NORTHERNLEHIGH HIGH SCHOOL

## PROGRAM OF STUDIES



2019 - 2020

**PLEASE VISIT THE NL HIGH SCHOOL SITE FOR MORE INFORMATION**  
<http://schools.nlsd.org/srhsnlsd/>



# NORTHERN LEHIGH HIGH SCHOOL

1 Bulldog Lane  
Slatington, PA18080

Main Office – 610-767-9832  
Guidance Office – 610-767-9837  
Athletics – 610-767-9840

## Administration

Mr. Robert L. Vlasaty, Principal  
Mrs. Tanya Simms, Assistant Principal

## Counselors

Mrs. Allison Chruscial  
Mrs. Sheila Lanshe

## Director of Special Education

Mrs. Michele Dotta

## Director of Athletics

Mr. Bryan Geist  
Mr. Joseph Tout, Assistant





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*Principal's Message*

Dear Students/Parents/Guardians,

The staff and administration of the Northern Lehigh High School have prepared this Program of Studies Guide to help you during the course selection process. Included in this guide is a list of course descriptions which have been designed to help you decide upon your academic program based on your course history, interests, academic ability and motivation, personality and, most importantly, your future career plans. High School students face many difficult decisions and an infinite number of options. Planning a program of studies to meet the varied demands and interest of every student is a challenging task, yet one we take very seriously in revisiting this guide every year. Our goal is to provide you with as much information and assistance as possible in order to make the proper choices.

The scheduling process that we utilize is a cooperative format that includes input from students, parents, advisors, counselors and teachers and will begin with an online opportunity to choose your courses, then scheduling a personal meeting between you and your guidance counselor in an effort to discuss your goals, selections and options. Many questions concerning courses or career plans can be answered in this booklet, however, if additional information is needed, please do not hesitate to contact your guidance counselor, teachers or administrators.

We look forward to planning the 2019-2020 schoolyear with you and helping you to achieve your goals!

Respectfully,

*Robert L. Vlasaty*

*Tanya Simms*

Robert L. Vlasaty  
Principal  
Northern Lehigh High School  
Northern Lehigh School District

Tanya Simms  
Assistant Principal  
Northern Lehigh High School  
Northern Lehigh School District





## MISSION

**The mission of the Northern Lehigh School District is to create a challenging and supportive environment dedicated to the success of our diverse learning community.**

## VISION

Our learners will have:

- The critical thinking, communication, collaboration and creative skills necessary to be college, career, and future ready.
- Self-esteem, self-discipline, and a sense of responsibility that enables them to meet challenges, be team players, and respect other's differences.
- Communication, technical, and life skills to gather information, solve problems, and adapt to change.
- The tools necessary to support their physical and psychological well-being.
- A vision for personal success.
- An appreciation for the arts and sciences.

We believe that...

- All students can learn and succeed if given sufficient time and appropriate instruction.
- Students will master a core of knowledge based on academic standards and experience academic growth.
- Varied communication skills are essential for success in a global world.
- Positive attitude, motivation, self-esteem and responsible behavior are vital to the learning process.
- All students should develop skills and appreciation in the areas of interest beyond the core of basic knowledge.
- Ongoing staff development is essential to quality learning.
- Learning is a life-long process.
- The school, community, family and students all share in the responsibility for learning.
- Students must be challenged to think critically, problem solve, and use appropriate decision-making skills.
- Students must have a nurturing environment that is physically, emotionally, and spiritually safe.
  - Accepting diversity is an integral part of a student's educational experience.





## **NONDISCRIMINATION POLICY**

Northern Lehigh School District is an equal opportunity educational institution and will not discriminate on the basis of race, religion, age, color, national origin, sex, handicap or limited English proficiency in its activities, programs, or employment practices as required by Title VI, Title IX and Section 504. For information regarding civil rights or grievance procedures, contact the superintendent's office, Title IX and Section 504 coordinator, Administration Building, 1201 Shadow Oaks Lane, Slatington, PA 18080 610-767-9800. For information regarding services, activities and facilities that are accessible to and usable by handicapped persons also contact the superintendent's office.

## **NOTICE TO PARENTS OF HANDICAPPED**

In compliance with state and federal law, the Northern Lehigh School District will provide to each protected handicapped student, without discrimination or cost to the student or family, those related aids, services or accommodations which are needed to provide equal opportunity to participate in and obtain the benefits of the school program and extracurricular activities to the maximum extent appropriate to the student's abilities. In order to qualify as a protected handicapped student the child must be of school age with a physical or mental disability which substantially limits or prohibits participation in or access to an aspect of the school program.

These services and protections for "protected handicapped students" are distinct from those applicable to all eligible or exceptional students enrolled (or seeking enrollment) in special education programs.

For further information on the evaluation procedures and provision of services to protected handicapped students, contact Mrs. Michele Dotta at 610-767-9858.

## **FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)**

The Family Educational Rights and Privacy Act (FERPA) for parents and students who are over eighteen years of age ("eligible students") provide certain rights with respect to the following:

### **I. RIGHT TO REVIEW STUDENT RECORDS**

The right to inspect and review the student's education records within 45 days of the date the District receives a request for access.

Parents or eligible students should submit to the school principal or other appropriate school official a written request that identifies the records they wish to inspect. The principal will make arrangements for access and notify the parent or eligible students of the time and place where the records may be inspected.

### **II. RIGHT TO REQUEST AN AMENDMENT TO STUDENT RECORDS**

Parents or eligible students may ask Northern Lehigh School District to amend a record that they believe is inaccurate or misleading. They should write the school principal, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the District decides not to amend the record as requested by the parent or eligible student, the District will notify the parent or eligible student of the decision and advise either of the right to a hearing regarding the request for the amendment.





Additional information regarding the hearing procedures will be provided to the parent or eligible student when notified of the right to a hearing.

### III. RIGHT TO CONSENT TO DISCLOSURES

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interest or assisting another school official in performing his or her task.

A school official has a legitimate educational interest if the official needs to review an educational record in order to fulfill his or her professional responsibility.

Upon request, the District discloses educational records without consent to officials of another school district in which the student seeks or intends to enroll.

### IV. RELEASE OF DIRECTORY INFORMATION

Since Federal law and state regulations do not prohibit schools from sharing class lists and student directories with Armed Forces recruiters, Northern Lehigh High School honors such requests. The law does require, however, that Northern Lehigh notify parents (or eligible student) of their right to restrict the release of this directory information. Therefore, if a person wishes to exercise this right, she/he should contact the high school main office (767-9832). Lists containing students' names, addresses, and phone numbers are classified in the Family Educational Rights and Privacy Act of 1974 as "Directory Information" and are not subject to the same type of confidentiality restrictions as are other portions of the student record.

### V. PURGING (See School Board Policy #216)

### VI. COMPLAINTS

Parents/guardians have the right to file a complaint with the United States Department of Education concerning alleged failures by the District to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605





**COURSE REQUIREMENTS NEEDED FOR GRADUATION**

<b><u>FULL DAY STUDENT CREDIT REQUIREMENTS</u></b>		<b><u>½ DAY LCTI COURSE REQUIREMENTS</u></b> <small>*Based on a student starting at LCTI in 9<sup>th</sup> grade</small>	
English	4 courses	English	4 courses
Mathematics	4 courses	Mathematics	4 courses
Science	3 courses	Science	3 courses
Social Studies	4 courses	Social Studies	3 courses
Computer Technology <small>Future Ready Skills required</small>	2 courses	*Computer Technology <small>Future Ready Skills required</small>	2 courses
Wellness/Fitness	3 courses	Wellness/Fitness	1 courses
Arts & Humanities	2 courses	Arts & Humanities	2 courses
Electives	4 courses	Remaining credits received at LCTI in chosen lab	
<b>CLASS OF 2020 &amp; 2021</b>	<b>TAKE EACH KEYSTONE EXAM AND RETEST AT LEAST ONCE ON EACH NON-PROFICIENT SCORE**</b>		
<b>CLASS OF 2022 &amp; BEYOND</b>	<b>SCORE PROFICIENT/ADVANCED ON EACH KEYSTONE EXAM OR COMPLETE AN ALTERNATIVE PATHWAY AS DEFINED BY PDE &amp; NLSD**</b>		
<b>Minimum required courses for graduation</b>	<b>26 courses</b>	<b>Minimum required credits for graduation</b>	<b>26 courses</b>

*\*\*Act 158 of 2018 was signed into law on Oct. 24, 2018. This law establishes alternate pathways for graduation for students and becomes effective in the 2021-22 school year. Students graduating from the 2019-2020 school year and when the law takes effect will continue to take each Keystone Exam (Literature, Algebra I, Biology) and retest for each non-proficient score*

**\*NOTE:** Students taking Algebraic Concepts and Algebra IA as a 9<sup>th</sup> grader will only be required to have 1 Computer Technology credit.

**GRADE PROMOTION REQUIREMENTS**

**SOPHOMORE:**

A student will become a sophomore if they successfully complete a minimum of 6 total courses by the end of grade nine.

**JUNIOR:**

A student will become a junior if they successfully complete a minimum of 13 total courses by the end of grade ten.

**SENIOR:**

A student will become a senior if they successfully complete a minimum of 18 total courses by the completion of grade eleven.







## NCAA REQUIREMENTS - DIVISION I AND II COLLEGE ATHLETICS

Students who want to participate in Division I or Division II athletics must receive certification by the NCAA Initial-Eligibility Clearinghouse.

To be certified, a student must be a high school graduate and meet minimum Grade Point Average (GPA) requirements in a core curriculum of at least 16 academic courses (grades 9-12). In addition, prospective Division I and II athletes must also attain a minimum SAT or ACT score - see the NCAA clearinghouse website – [ncaaclearinghouse.net](http://ncaaclearinghouse.net) for more information. Please see your counselor to discuss this further. This process should begin at the end of their junior year.

A list of Northern Lehigh High School's approved courses can be found on the final page of this guide.

## COURSE CHALLENGE POLICY/PROCEDURES

Students may “challenge” a required graduation course in order to replace it with another course that is more driven toward their career plan. The requirement for a successful “challenge” may be, for example, a written examination, project, writing assignment, any combination of these or other evaluative criteria. The specific requirements are determined by the professional staff within the curricular department in which the challenged course is offered.

A student must have maintained at least a 3.5 (A-) GPA in all other courses that were taken in the curricular area being challenged. For example, if a student challenges a science course, the student must have achieved at least a 3.5 in all previous science courses taken. Any interested student who has achieved the GPA requirement should see his/her counselor for additional requirements, mandated deadlines, and other information.

The minimum grade for a successful challenge is 93%. A student who earns a grade between 93% and 100% will receive course credit. Courses that are successfully challenged **will not** count towards a student's GPA or class rank.

## EXAMINATIONS

Final examinations will be administered in all courses unless permission not to administer an end of year final exam is granted by the administration.

For determining Valedictorian and Salutatorian, NLSD will calculate Class Ranking at the conclusion of senior final exams in June.

## GIFTED PROGRAM

Gifted students are identified through objective criteria developed by the Pennsylvania Department of Education. The criteria used to identify the mentally gifted include teacher recommendation, academic achievement, group and individual intelligence testing, and interest inventories. Gifted students are encouraged to take the most challenging classes available to them. If you would like more information please contact your child's school counselor.





## INDEPENDENT STUDY

The opportunity for an independent study is offered to students who are in high scholastic standing (GPA of 3.0 or higher) in a particular curriculum area and possess the ability to work independently and accept a high degree of responsibility for individual achievement. **Students selecting this avenue of extensive research must meet with the subject area teacher to determine whether an independent study project is feasible.** Independent study will only be available to students whose schedules are compatible with a teacher-advisor and if meeting space is available.

### STEPS TO SCHEDULE AN INDEPENDENT STUDY

1. Contact the teacher that you are interested in doing an independent study with to see if it is feasible.
2. Obtain an Independent Study application form from the Guidance Office.
3. Schedule a meeting with the teacher-advisor to finalize plans for the Independent Study, complete the application form, and sign it.
4. Have a parent/guardian sign the application form.
5. Submit a completed application form with all signatures to the Guidance Department to obtain signatures from your counselor and administration.

#### Notes:

1. Grades received from an Independent Study course will be reflected in a student's GPA and class rank. Honors credit may be awarded if course is above what is offered at Northern Lehigh (i.e. Honors Physics III).
2. An Independent Study in any particular course will not be approved if the course is offered at Northern Lehigh High School, unless the student is unable to schedule it due to taking courses through Emerging Health, High School Honors Programs, or LCTI. The purpose of an Independent Study is to pursue advanced study in a curriculum area and not to solve schedule problems.

## CREDIT RECOVERY

If a student fails a course that is required for graduation and/or to progress to the next grade level, may opt to take credit recovery. Credit recovery will be offered to the student for a fee and the fee will vary. Currently, Northern Lehigh High School uses Bulldog Academy, our online program, for credit recovery.

An Underclassman Student (grades 9-11), may only make up a maximum of three (3) failed courses per year through credit recovery.

A Senior Student (grade 12), is afforded the opportunity to take a maximum of three (3) failed courses during the academic year to become eligible for graduation.

## SCHEDULE CHANGES

Because of the complexity of a master schedule, class sizes, and staff assignment, schedule changes will be limited and considered on a case by case basis. Students will have 3 days at the beginning of each semester to drop/add a class and will not be considered to alter the block the course is offered or for a change of teacher assignment. Furthermore, a student may be asked to complete a formal drop/add form before the change would go into effect.





## HONORS SCHOLARS PROGRAMS AND DUAL ENROLLMENT

### LEHIGH UNIVERSITY / DESALES UNIVERSITY / MORAVIAN COLLEGE HIGH SCHOOL SCHOLARS PROGRAM

Senior students in exceptional standing have the opportunity to apply to the Lehigh University, DeSales University, or Moravian College High School Scholar's Program. These programs are highly competitive where selected students are provided the opportunity to take a college course at their respective campus free of charge, with the exception of textbooks, lab fees, and transportation. Applications for these programs become available at varying times so students interested are encouraged to read announcements and check email for more information.

### EMERGING HEALTH PROGRAM

Lehigh Career & Technical Institute, Lehigh Valley Health Network, Penn State Lehigh Valley and LCCC are pleased to offer this dual-enrollment partnership program, which combines interactive, university-level classroom learning with observation in the health care field. This half-day program is designed for high school seniors interested in entering a health-related career. In addition, the program is designed to prepare students for post-secondary education by offering college-level science courses. Students interested should attend a presentation, given by the program, at Northern Lehigh High School during their junior year. There is an application process and fee involved.

### NLHS DUAL ENROLLMENT GUIDELINES

In a partnership with Lehigh Carbon Community College students are offered dual enrollment opportunities that allow them to take college courses for both high school and college credit. Students taking dual enrollment courses must adhere to all guidelines regarding NLSD's Dual Enrollment Program. **For a list of all guidelines, please access Northern Lehigh High School's Guidance page at [www.nlsd.org/shs](http://www.nlsd.org/shs).**

**IMPORTANT:** Any dual enrollment course, not taught by a Northern Lehigh faculty member, will receive 1.0 credit that can be used toward graduation, but the course(s) will not be calculated in class rank or grade point average. This includes all DeSales, Lehigh, and Moravian honors courses, Penn State courses taken through Emerging Health, and some LCCC dual enrollment courses.

Any dual enrollment course taught by a Northern Lehigh faculty member will receive 1.0 credit that can be used toward graduation and the course will be calculated in class rank and grade point average as an honors level course. Students will receive the quality point for taking these course(s).

**\*\*Please refer to the Dual Enrollment pages of this Program of Studies Guide for LCCC courses that will or will not be calculated in class rank and/or grade point average.**

**NOTE: It is the responsibility of the student and/or parent/guardian to consult with the college or university that the student may be attending to determine if dual enrollment credit earned will transfer. NLSD will not be held responsible if dual enrollment credits earned are not transferable.**





**GRADE POINT AVERAGE (GPA)**

A student's GPA is computed at the end of each quarter and a cumulative GPA at the end of each semester on a scale ranging from .00 to 4.00. The GPA for each individual course is determined by converting the final numerical average (0% to 100%) to its 4 - Point Equivalency according to the following conversion scale. Students taking honors classes will receive 1 quality point for each course. Examples are below.

**Note: Class rank is based upon the grade point average. The number one ranked student will be the student with the highest grade point average and so forth.**

<u>Numerical Average</u>	<u>4-Point Scale Equivalent</u>
93 - 100	4.00
90 - 92	3.66
87 - 89	3.33
83 - 86	3.00
80 - 82	2.66
77 - 79	2.33
73 - 76	2.00
70 - 72	1.66
67 - 69	1.33
63 - 66	1.00
60 - 62	0.66
Below 60	0.00

**GPA Calculation Example #1:**

<u>Course</u>	<u>Numerical Average</u>	<u>4-Point Scale Equivalent</u>	<u>Additional Point for honors level course</u>	<u>Attempted Credit</u>	<u>Course Points</u>
Honors English II	97	4.00	1.00	1.00	5.00
Geometry	98	4.00		1.00	4.00
Honors US III	81	2.66	1.00	1.00	3.66
Wellness/Fitness II	92	3.66		1.00	3.66

**Student GPA = 16.32 (Total Course Points) / 4.00 (Attempted Credits) = 4.08**

**GPA Calculation Example #2:**

<u>Course</u>	<u>Numerical Average</u>	<u>4-Point Scale Equivalent</u>	<u>Additional point for honors classes</u>	<u>Attempted Credit</u>	<u>Course Points</u>
LCCC Research & Composition	97	Not included in GPA		English credit earned toward graduation.	0
LCCC Calculus	85	3.00	1.00	1.00	4.00
World History	81	2.66		1.00	2.66
AP Biology	88	3.33	1.00	1.00	4.33

**Student GPA = 10.99 (Total Course Points) / 3 (Attempted Credits) = 3.66**





**COURSE SELECTIONS - 9<sup>TH</sup> GRADE**

**\*Students will take a course from each of the following academic areas depending on their path of study. 8<sup>th</sup> grade teachers will verify or give input on student placement and high school counselors will meet with students to discuss future career plans and make course recommendations to help prepare them.**

NL FULL DAY		NL ½ day & LCTI ½ day	
Course Options	Credit	Course Options	Credit
<b>English</b> - Honors English I, Academic English I, English I	1.00	<b>English</b> - Honors English I, Academic English I, English I	1.00
<b>Math</b> – Honors Algebra II, Academic Algebra IA, Algebraic Concepts and Algebra IA (full year)	1.00	<b>Math</b> – Honors Algebra II, Academic Algebra IA, Algebraic Concepts and Algebra IA (full year)	1.00
<b>Science</b> – Honors Integrated Science, Academic Integrated Science, Integrated Science	1.00	<b>Science</b> – Honors Integrated Science, Academic Integrated Science, Integrated Science	1.00
<b>Social Studies</b> – Honors US History II, US History II	1.00	* <b>Computer Technology</b> – Computer Applications, CAD I, Web Design, Video Production	1.00
<b>Computer Technology</b> – Computer Applications, CAD I, Web Design, Video Production	1.00	<b>LCTI</b> – LCTI Lab.	4.00
<b>Wellness/Fitness</b> – Wellness/Fitness I	1.00		
<b>Electives</b> – These 2 credits can come from Art, Family Consumer Science, Foreign Language, or any other none core course.	2.00	<b>*Note: If students are scheduled for Algebraic Concepts they will take Alg. IA in lieu of a technology course. Two math credits will be awarded if a student takes both of these math courses.</b>	
<b>*Please note: Spanish, French, or German I is recommended for college bound students</b>			
<b>Total Credits 9<sup>th</sup> Grade</b>	<b>8.00</b>		<b>8.00</b>





**COURSE SELECTIONS -10<sup>TH</sup> GRADE**

**\*Students will take a course from each of the following academic areas depending on their path of study and high school counselors will meet with each student to make course recommendations to help prepare them.**

NL FULL DAY		NL ½ DAY + LCTI ½ DAY	
Course Options	Credit	Course Options	Credit
<b>English</b> – Honors English II, Academic English II, English II	1.00	<b>English</b> – Honors English II, Academic English II, English II	1.00
<b>Math</b> - Algebra IB or Academic Algebra IB	1.00	<b>Math</b> -Algebra IB or Academic Algebra IB	1.00
<b>Note: College-bound students should also take a Geometry course during this year (i.e. Honors Geometry or Academic Geometry)</b>			
<b>Science</b> – Ecology&Cell Processes (Semester 1), Biology (Semester 2)	2.00	<b>Science</b> – Ecology&Cell Processes (Semester 1), Biology (Semester 2)	2.00
<b>*Academic and Honors levels of these courses are also available.</b>		<b>*Academic and Honors levels of these courses are also available.</b>	
<b>Social Studies</b> - Honors US History III, US History III, or Honors Civics: Government & Economics	1.00	<b>Social Studies</b> – American Studies II@ LCTI	1.00
<b>Wellness/Fitness</b> – Wellness/Fitness II	1.00	<b>LCTI</b> – LCTI Lab.	3.00
<b>Electives:</b> These 2 credits can come from Art, Family Consumer Science, Foreign Language, or any other none core course	2.00		
<b>*Please note: French, German, or Spanish II is recommended for college bound students</b>			
<b>Total Credits 10th Grade</b>	<b>8.00</b>	<b>Total Credits 10<sup>th</sup> Grade</b>	<b>8.00</b>





**COURSE SELECTIONS - 11<sup>TH</sup> GRADE**

\*Students will take a course from each of the following academic areas depending on their path of study and high school counselors will meet with each student to make course recommendations to help prepare them.

NL FULL DAY		NL ½ DAY + LCTI ½ DAY	
Course Options	Credit	Course Options	Credit
<b>English</b> – Honors English III, Academic English III, English III, AP Language & Composition (NEW)	1.00	<b>English</b> – Honors English III, Academic English III, English III, AP Language & Composition (NEW)	1.00
<b>Math</b> - Honors Trigonometry, Academic Algebra I/Trigonometry, Algebra II/Trigonometry	1.00	<b>Math</b> – Honors Geometry, Academic Geometry, Geometry	1.00
*Geometry will also be scheduled if not taken in 10 <sup>th</sup> grade			
<b>Science</b> - Please refer to course selection sheet for options	1.00	<b>Social Studies</b> – Civics: Government & Economics (full year)	1.00
*Although students will fulfill the 3 credit requirement by 10 <sup>th</sup> grade, it is highly recommended for college-bound students that they take four years of a science, with at least one chemistry course taken in their junior year.			
<b>Social Studies</b> – Honors Civics: Government & Economics or Civics: Government & Economics, AP US History	1.00	<b>Wellness/Fitness</b> - Will be taken at LCTI	1.00
<b>Wellness/ Fitness</b> – Wellness/Fitness III	1.00	<b>LCTI</b> – LCTI Lab.	3.00
<b>Computer Technology</b> - Future Ready Skills (option)	1.00		
<b>Electives</b> – These 2 courses can come from Art, Family Consumer Science, Foreign Language, or any other none required core course.	2.00		
*Third year of a language may be recommended depending on what college/university student wants to attend.			
<b>Total Credits 11th Grade</b>	<b>8.00</b>	<b>Total Credits 11<sup>th</sup> Grade</b>	<b>7.00</b>





**COURSE SELECTIONS -12<sup>TH</sup> GRADE**

**\*Students will take a course from each of the following academic areas depending on their path of study and high school counselors will meet with each student to make course recommendations to help prepare them.**

NL FULL DAY		NL ½ DAY + LCTI ½ DAY	
Course	Credit	Course	Credit
<b>English</b> –AP English Literature, LCCC Research & Composition, Academic English IV, English IV	1.00	<b>English</b> – AP English Literature, LCCC Research & Composition, Academic English IV, English IV	1.00
<b>Math</b> – AP Calculus, LCCC Calculus & Analytic Geometry I, Calculus, Pre-Calculus, Honors Trigonometry, Academic Algebra II/Trigonometry, Algebra II/Trigonometry or Probability & Statistics	1.00	<b>Math</b> –AP Calculus, LCCC Calculus & Analytic Geometry I, Calculus, Pre-Calculus, Honors Trigonometry, Academic Algebra II/Trigonometry, Algebra II/Trigonometry or Probability & Statistics	1.00
<b>Social Studies</b> - World History, Honors World History, AP European History (if not previously taken)	1.00	<b>Social Studies</b> – Honors World History, World History, Honors US History III, US History III, AP European History, AP US History	1.00
<b>Science:</b> Although students fulfilled their 3 credit requirement in 10 <sup>th</sup> grade, it is highly recommended for college-bound students to take four years of a science, with at least one chemistry course and one physics course.		<b>Computer Technology</b> - Future Ready Skills	1.00
<b>Computer Technology</b> - Future Ready Skills (if not previously taken)		<b>LCTI</b> – LCTI Lab.	4.00
<b>Electives</b> – These 5 or 6 credits can come from any other none required course.	5.00		
<b>Total Credits 12<sup>th</sup> Grade</b>	<b>8.00</b>	<b>Total Credits 12<sup>th</sup> Grade</b>	<b>8.00</b>







Career and technical education, or CTE, helps students get more out of high school. Specifically, more opportunities to master practical skills, secure industry credentials, earn college credit, win scholarships, explore careers, develop leadership ability and gain real-world experience. That's why Lehigh Career & Technical Institute is the smart choice for students who want to be college and career ready when they graduate.

Operating with the support of all nine Lehigh County school districts, LCTI offers dozens of CTE programs taught by industry experts in five areas of study: Arts & Humanities, Business & Communication Technology, Engineering & Advanced Manufacturing, Health & Human Services and Industrial Technology.

We are the largest career and technical school in Pennsylvania and, thanks to the support of our education and industry partners, among the best equipped nationwide. LCTI's campus is adjacent to Lehigh Carbon Community College in the Schnecksville section of North Whitehall Township and boasts a 450,000-square-foot facility outfitted with the latest software, tools and equipment

### Enrollment Options for NL Students

Half-day enrollment: Students in ninth through twelfth grade may choose the half-day enrollment option. This half-day option provides students with career & technical education at LCTI and the required academics at their respective school districts. Students are encouraged to take high-level course work at the sending district which will provide the academic background necessary to be successful in today's highly technical careers.

Flex time enrollment: Another option that may suit students' individual needs is the flex-day program. The flex program is designed to provide students with technical coursework on a limited schedule. Students may choose to come to LCTI for one or more periods per day depending upon their needs. Students may attend one or both semesters and may attend for multiple years. Many students use this technical educational training as a jump start to a technical degree in a four-year institution.

Both the half-day and flex-day options may be chosen during the regular course registration process.

### Why Enroll?

Why enroll? Lehigh Career & Technical Institute clearly has the potential to offer students many career opportunities in a schedule that will serve individual needs. Students may decide to pursue career & technical education starting with their freshman year or may start as a sophomore, junior, and even a senior. With the rising cost of post-secondary education, students need to make critical career decisions that result in a postsecondary plan that has a likelihood of being successful. The more than forty career & technical offerings made available to students give them the skills and education that is necessary to make sound career decisions and become productive citizens in today's global economy.





## NORTHERN LEHIGH HIGH SCHOOL 2019-2020 PROGRAM OF STUDIES

### LCTI ACADEMIC OPTIONS FOR HALF-DAY STUDENTS

Lehigh Career & Technical Institute (LCTI) provides academic courses to some half-day students who attend the school. It is very important for students to be successful in both their academic and technical course work. The courses taken at LCTI are necessary to meet the student's graduation requirements. If a student does not complete an academic course with a passing grade, the course must be re-taken. LCTI does not offer a summer school; however, this option may be available through the sending high school. It may also be possible for courses to be made up during the students' senior year; however, make up courses scheduled in the senior year can cause the student to lose the opportunity for a Cooperative Education job placement. If the coursework is not made up, graduation from high school may be jeopardized.

The following academic courses for half-day students may be required while attending LCTI.

#### **American Studies II**

The American Studies II course addresses the development of the United States throughout the twentieth century. This course is aligned to the Pennsylvania Core Standards for Social Studies as well as Reading, Writing, and Listening and Speaking. Through various activities and lessons, these standards will be met to understand the development of the United States as a world power; focusing on economic and industrial development, political trends, society and cultural problems and achievements. The students will develop an understanding of the progress of technology and social groups. They will be expected to evaluate the changes of culture in society and analyze the political contributions of individuals and events of the periods studied. American Studies assignments also include the integrated concepts between this history course and various Career & Technical Labs. Students will be assessed formally and informally to determine mastery of the content for the duration of the academic year.

#### **Wellness & Fitness**

**Course Overview:** The Wellness Program provides students with life-changing information on nutrition and various techniques on stress management that they can use throughout life. The most common mental disorders will be researched and students will receive training on suicide prevention. During nutrition, students will investigate the harmful ingredients found in the foods they eat on a daily basis, analyze products served by several fast food chains and research healthy alternatives.

The Fitness Program is designed to acquaint students with the benefits of physical activity in their lives and to promote life-long wellness and fitness. The course, which is held in the state-of-the-art LCTI Fitness Center, will feature various strength and conditioning principles, such as specificity, progression and overload, along with multiple training techniques, such as Cross Fit, Tabata, Yoga, and an assortment of technology-based exercises.

## LCTI CAREER & TECHNICAL EDUCATION OPTIONS

At Lehigh Career & Technical Institute, students learn by doing. Teachers guide students from instruction to action, helping them tackle projects that mirror on-the-job challenges as they develop the knowledge and skill necessary to secure industry credentials, earn college credit or both. For example, marketing students manage a store on their way to earning National Retail Federation certification. Programs are identified as either Program of Study (POS) or TECH PREP which designates the type of post-secondary credit options available. Students who participate in the POS programs have

the ability to earn advanced college credits through SOAR (Students Occupationally and Academically Ready) or through articulation credit with a specific post-secondary school. Tech Prep programs only offer articulation credit where available.

LCTI's programs fall into five areas of study:





### ARTS AND HUMANITIES

**Advertising Design/Commercial Art:** Students will learn the latest Adobe graphic design software currently used in the professional workplace. The emphasis of the program is based on Adobe Photoshop, Illustrator and InDesign Creative Cloud and creating a printed and electronic portfolio of work produced through these programs. Students are able to receive certification for Adobe Photoshop, Illustrator and InDesign through Adobe endorsed Train Simple. In addition to the Adobe Creative Cloud, students will learn traditional illustration skills such as pencil drawing and shading, water color, color pencil, scratch board and various other mediums. Photography for advertising is used in class and students will learn the use of a Digital Single Lens Reflex camera and the setup of strobe lights. Students are able to concentrate in three different career objectives which are Graphic Design, Sign-Making or Illustration. **(POS)**

**Commercial Photography/Electronic Imaging:** Students who select this specialty will receive training in photography both in the studio and on location using the latest digital camera techniques and digital computer technology for processing and printing images. The course includes professional lighting techniques and design elements for a wide variety of subjects including wedding and portraiture, products for advertising, as well as photojournalism and editorial markets. **(TECH PREP)**

### BUSINESS AND COMMUNICATION TECHNOLOGY

**Administrative Office Technology/Accounting:** Students are exposed to a variety of both technical and interpersonal skills to help prepare them for the 21<sup>st</sup> century office. Skills include office procedures, business communications, accounting, word processing, and utilizing the Microsoft Office Suite (Word, Excel, PowerPoint, Access, and Publisher). Additional topics include entrepreneurship, teamwork, and public speaking. \*This program participates with the IT Academy\* **(POS)**

**Computer Information Technology:** Students will be at the forefront of cyber-security related issues as a means to safeguard sensitive data and preserve confidentiality. Computer Information Technology will challenge students to develop meaningful business solutions through computer programming in Visual Basic, C+, C#, and Java. Students will learn to work with data in order to produce relevant information that will help to drive the direction of organizations and solve real problems. \*This program participates with the IT Academy\* **(POS)**

**Computer & Networking Technology:** Students are prepared for advanced network training and the industry standard CompTIA **A+** and **Network+** Service Technician certifications. The program takes students from basic PC hardware through operating systems and networking. Students will also learn the MS Office Suite, customer service and support, and advanced network support. Students have the opportunity to participate in dual enrollment coursework for college credit; additionally, satisfactory completion of the program may grant college course credit through articulation agreements with LCCC. . \*This program participates with the IT Academy\* **(POS)**

**Marketing and Business Education:** Students learn about finance, retail marketing, banking, entrepreneurship, promotions and other important aspects of marketing through virtual business software and retail experience in the school's store. They examine what is necessary to run a business, promote a product or manage a department. Practical experience is available through the student-managed school store and by participating in community internship opportunities. **(POS)**





## NORTHERN LEHIGH HIGH SCHOOL 2019-2020 PROGRAM OF STUDIES

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**Print Technology/Graphic Imaging:** Students creatively design printed materials such as full-color books, posters, packaging, displays, stationary, as well as specialty items like mugs and shirts. Using the most current versions of Adobe Creative Cloud software on Apple Macintosh computers, students then reproduce their attractive projects on state-of-the-art copiers, printing presses, and bindery machines in a real production environment. **(POS)**

**Web Design/Web Programming:** Students learn the fundamentals related to web page design and website development, graphics, multi-media and HTML coding. Students are taught the tools for rapid web page production and basic server-side programming techniques to handle everything from forms transmittal to building dynamic interactive web pages, intranet, extranet and e-commerce applications. . \*This program participates with the IT Academy\* **(POS)**

### **ENGINEERING& ADVANCED MANUFACTURING**

**Computer-Aided Drafting & Design:** Students combine their industrial and mechanical interests with creativity and work toward successfully moving into mechanical, architectural or civil engineering careers. Drawing techniques, architectural plans, advanced AutoCAD, and engineering, open the world of CAD to students. This solid foundation assists Drafting/CAD students who wish to pursue further education and professional careers. **(POS)**

**Electromechanical/Mechatronics Technology:** Students learn an innovative curriculum which combines hands-on training with real world industrial equipment and software. Students get a solid background in industrial, electrical and electronic systems, A.C. and D.C. motors, motor controls, power distribution systems, programmable controllers, hydraulics, pneumatics, mechanical drives, transformers, process control systems and troubleshooting. **(POS)**

**Electronics Technology/Nanofabrication:** Students are taught the principles of electronics. From DC Circuits to Solid State Devices they learn to design, build, and test electronic circuits. LCTI has a fully functioning Class 1000 fabrication room (cleanroom) where students create the silicon chips that are the foundation of the information age and the heart and soul of modern electronics. **(POS)**

**Precision Machine Tool Technology:** LCTI's Precision Machine lab is recognized as a Haas Technical Education Center and incorporates lessons and demonstrations, as well as extensive applications training in reading blueprints, operating a digital lathe, milling machine, drill press and other machine shop operations in the curriculum. Students train on state-of-the-art CNC machine tools placed in the lab by Haas Automation. **(POS)**

**Pre-Engineering & Engineering Technology:** This pre-engineering program is a sequence of courses which, when combined with traditional mathematics and science courses, introduces students to the world of engineering. Students study the principles of engineering, engineering design, digital electronics and computer integrated manufacturing. **(POS)**

**Supply Chain Management & Logistics Technology:** Students learn inventory control, purchasing, receiving, shipping, equipment operation and maintenance in a state-of-the-art 17,000 square foot distribution center. Students train with current industry technology including handle-held track pads and computers, vertical and horizontal carousels, a computer-controlled conveyor and a computer-integrated warehouse management system. Students explore the supply chain of products from their global origin to the consumer including modes of transportation. **(POS)**





**Welding Technology:** This course teaches students shielded metal arc welding, gas metal arc welding, flux cord arc welding, welding inspection, testing, and safety/emergency procedures. The program operates under entry level certification authorization by the American Welding Society and a special arrangement with Lehigh Carbon Community College permits students to earn a national skills certificate and an Associate Degree.

**(POS)**

### **INDUSTRIAL TECHNOLOGY**

**Auto Body/Collision Repair Technology:** Students learn about the tools and equipment associated with the collision repair industry, while learning welding, non-structural and structural damage analysis, estimating, and repair techniques, along with paint preparation and refinishing systems used on today's technologically advanced automobiles. This comprehensive course of study and the volume of exposure students receive allows them to step into the workforce immediately following graduation or continue studies at the post-secondary level. **(POS)**

**Auto Technology:** Students in this program are prepared to diagnose and repair automobile systems including electrical systems, ignition and emission systems, engine cooling and lubrication, front ends, air conditioning, brakes, transmissions, engines and drive trains. Students participate in the nationally recognized Automotive Youth Education Systems (AYES) industry partnership. The instructors of this program are Master Certified ASE Technicians who utilize state-of-the-art equipment to prepare students to become automotive technicians. **(POS)**

**Cabinetmaking & Millwork:** Cabinetry, wood products design and layout and construction open the world of cabinetmaking & millwork to students. Students are taught to read blueprints, make shop drawings, and produce components with trade-related hand and power tools and machinery. The newly expanded lab and curriculum provides knowledge of lumber products adhesives, fastener, finishing, 32mm cabinets and counter top fabrication. Technology has entered this rewarding construction trade with the addition of CNC router technology. **(POS)**

**Carpentry:** Blueprints, site work, construction footings, framing floors/walls/ceilings/roofs, radon control, insulation and power tools are some of the areas taught in Carpentry. Students participate in the LCTI Student House Project where a home is built and sold at auction upon its completion. Students learn how the building industry works, its standards, and what is required to complete a project on time and at cost. **(POS)**

**Diesel/Medium and Heavy Truck Technology:** Students gain experience with drive trains, clutch assemblies, transmissions, diagnostics, steering and other aspects of this industry. Students also study suspension, diesel engines, gasoline engines, bearings and seals. The trucking industry needs professionals to service the truck fleet that keeps industry and commerce moving in the United States. LCTI can provide students with the necessary expertise they need to succeed in this industry. **(POS)**

**Electrical Technology:** Students learn residential, commercial, and industrial electrical wiring, as well as fluid power technology planning and wiring. Students are taught to install duplex and split wired duplex receptacles, single pole switches, 3-way and 4-way switches and Ground Fault Circuit Interrupters. **(POS)**

**Heating/Air Conditioning & Refrigeration:** Students learn to install, troubleshoot and repair air conditioning, heat pumps, commercial refrigeration units and gas and oil heating equipment. Skilled technicians are proficient in reading electrical diagrams, diagnosis of electrical problems, air distribution designs, copper and steel pipe cutting, soldering and fabricating fiberglass and sheet metal duct systems. **(POS)**





## NORTHERN LEHIGH HIGH SCHOOL 2019-2020 PROGRAM OF STUDIES

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**Heavy Equipment Operations & Preventive Maintenance:** As a student in this fast-paced and diverse program, you will learn the safety, maintenance and operating techniques for a wide variety of earthmoving equipment. Students will also receive instruction in soils, erosion and sediment control, site preparation, aggregate production, concrete and asphalt paving, surveys and grades, and utility installation. In addition, students will have the opportunity to learn machine systems, parts identification and ordering, and preventative maintenance techniques in a state-of-the-art facility. **This program is not available to ninth grade students. (TECH PREP)**

**Masonry:** Students will learn various layouts and pattern designs using brick, concrete masonry units, stone and ceramic tile. This comprehensive program teaches students how to correctly use the necessary tools and equipment to build simple wall structures, fireplaces and brick sculptures. Ceramic tile installation and thin stone veneer applications are also included in the curriculum. Students also participate in the student-built house project. (POS)

**Painting and Decorating:** Students learn to refresh and highlight interior and exterior spaces (residential and commercial) as well as improve and restore historical buildings. Painting, wallpaper hanging, furniture refinishing, line striping, staining and spraying are among some of the topics emphasized in this program. **(TECH PREP)**

**Plumbing and Heating:** In this high priority occupation program, Students will learn the basic to the advanced skills of Plumbing & Pipe Fitting. Repairing and installation of items such as, but not limited to; Faucets, Bathtubs, Toilets, Sump Pumps, Sewage Pumps, Water Heaters, Boilers, Water Softeners, Well Pumps, Solar Heating Systems, Chilled Water, Air Conditioning and Radiant Heating Systems. This lab will teach skills such as but not limited to; brazing, soldering, threading, pressed, rolled/grooved, flared, pipe fitting and measurement and fused joints. Students will work with PEX, Copper, Steel, Cast Iron, PP-R, PVC and CVPC Pipe and Tubing. This program incorporates a multi-level and fast paced, technology enriched learning environment. **(POS)**

**Small Engines/Recreational Vehicle Repair:** Students will learn to diagnose and repair lawn mowers, chain saws, jet skis, motorcycles and go-karts. Students will learn about the small engine and the vital components to effectively make the engine perform to maximum efficiency. Students will also learn about brake systems, transmissions, hydraulics, hydrostatics and drive systems. Students will learn skills that involve welding, cutting with a torch, cylinder honing and boring. **(POS)**

### HEALTH AND HUMAN SERVICES

**Applied Horticulture:** This program, a combination of general horticulture (plant science) and hands-on applications, prepares students to produce, process and market plants and flowers

used for ornamental and aesthetic purposes as well as establishing, maintaining and managing various horticultural businesses. Instruction emphasizes knowledge, understanding and applications important to the success of businesses such as floriculture (floral design), greenhouse and nursery operations and management, and landscape technology. **(POS)**

**Commercial Baking:** Cake decorating, breads, rolls, sweet goods, pastries, pies, doughnuts and nutrition are all part of this course. Students learn the fundamental principles and procedures of operating a fully functioning bakery and retail bake shop, including preparation, display and management. With attention to both theory and practice, this course is designed to prepare students for entry-level positions in the commercial baking industry. **(POS)**





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**Cosmetology:** Students learn hair styling, hair cutting, hair coloring, chemical texturizing, nail/skin care and salon business operations. Students learn these skills through clinical practices offered at the school salon. Preparation for the Pennsylvania State Board Examination will enable students to become licensed as a cosmetologist and will allow them to work in a challenging and creative profession. **(TECH PREP)**

**Culinary Arts:** Stocks, soups, sauces, appetizers, desserts, main dishes, menu planning and nutrition are just some of the aspects of this program. Students learn front of the house and back of the house skills working in the school restaurant. LCTI's program is certified by the American Culinary Federation and is nationally recognized as exemplary in all areas of the curriculum. **(POS)**

**Criminal Justice:** Students learn Pennsylvania criminal and traffic laws, the legal use of force, search/seizure/evidence procedures, arrests and other aspects of law enforcement. Students also train in a fire arms simulator and conduct mock disaster drills to gain practical emergency skills. **(POS)**

**Dental Technology:** Students who enroll in this program learn a variety of skills that will enable them to become a dental assistant, dental laboratory technician, and/or pursue a career as a dental hygienist. The major areas of study in the course include: dental radiology, oral pathology, chair-side dental assisting, anatomy and physiology, dental materials, sterilization, and dental office business procedures. **(POS)**

**Early Care & Education of Young Children:** Students studying childcare will learn child and staff health, child development, early childhood education, special education, discipline and guidance of children, childcare program development and professional development. **(POS)**

**Emerging Health Professionals:** The Emerging Health Professionals Program provides high school seniors with an opportunity to experience a variety of health care careers in a hospital setting and take Penn State/Lehigh Carbon Community College science courses for college credit. Students spend one day a week rotating among various departments of a hospital. Students will experience these departments throughout the three Lehigh Valley Hospital & Health Network facilities, St Luke's University Health Network Allentown Campus, Country Meadows, and Good Shepherd Rehabilitation Network. The hospital portion of the program provides students with observational experience that enables students to observe various health care professionals as they work with patients. Also, students have the opportunity to meet various health career professionals during presentations within the LVHN community. In addition to these experiences, students are given an overview of the health care industry and all that it entails throughout their coursework at LCTI. **This program is only available to senior students. (POS)**

**Exercise Science & Rehabilitation Services:** Health care is among the nation's fastest growing industries and offers a broad range of professional opportunities. In our Exercise

Science & Rehabilitation Services program, students learn about the practical applications of medical science as they explore careers in physical therapy, athletic training and comparable fields. Students can earn CPR, AED and other certifications through the American Heart Association and may pursue internship and co-op positions at local health care facilities. **(POS)**

### **Other Program Options**

**Service Occupations:** Six curricular areas are offered in this program: Building Trades Maintenance, Custodial Maintenance, Grounds Maintenance and Landscaping, Food Service, Material Handling and Hospitality Services. Each area is designed to help the student transition from basic entry-level skill development to more advanced technical training or directly into the workforce. A





## NORTHERN LEHIGH HIGH SCHOOL 2019-2020 PROGRAM OF STUDIES

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skills assessment will be done to determine the readiness and interest of the student. Results of the assessment will be provided to the student's IEP team.

**Career Academy Program:** Provides the nine participating school districts of Lehigh County an alternative for at risk students to receive a high school diploma and work toward a career goal in their program of choice. Selected technical programs at LCTI are available to CAP students. They receive academic instruction in English, mathematics, social studies, science, health/wellness, physical education and enrichment coursework. A week of academic sessions rotates in the schedule with two weeks of technical education. Programs include: Auto Specialization Technology, Building Trades Maintenance, Carpentry, Early Care & Education of Young Children, Electrical Construction, Home Health Services and Office Systems Technology.

**Diversified Career Opportunities:** LCTI Technical Institute offers a Diversified Career Occupations (DCO) Program to qualified high school students interest in earning credits toward graduation while gaining valuable workplace experience. The DCO program requires students to continue pursuing their academic credits, but allows them to work half days in entry-level positions in occupational areas not offered at LCTI or county high schools.

Students learn to work with a work-site mentor who will share his or her expertise and provide training through an Occupational Training Plan. The employer is responsible to evaluate the student's performance on the job and to track attendance in the workplace.

DCO can benefit a variety of students, including those who have earned sufficient credits for graduation and may have free periods in their schedule. Work-based experience is a valuable tool to prepare for both full time employment and for post-secondary education. DCO is also beneficial to local employers, providing an avenue to recruit new workers who will be prepared to accept the challenges of today's workforce.

### **School-To-Career Opportunities:**

- **Job Shadow** Students accompany employees through part of a typical day and learn about the varied aspects of their job and skills required to work in the field.
- **Internship** Students in grades ten and eleven participate in a business match program that allows them to spend a period of time working in their field of study.
- **Cooperative Education:** Students in grade twelve participate in a business match program that allows them to spend a portion of their senior year working in their field of

study. Students pursue their academic coursework during the A.M. session and report to their place of employment for the P.M. session.







## NORTHERN LEHIGH HIGH SCHOOL 2019-2020 PROGRAM OF STUDIES

### DUAL ENROLLMENT PROGRAM

#### DID YOU KNOW YOU CAN TAKE COLLEGE CLASSES WHILE ATTENDING LCTI?

##### ***Opportunities to earn college credit while still in high school***

You won't have to break the bank to attend college. Each credit course at Lehigh Carbon Community College (LCCC) costs about half the regular tuition rate and less than a fourth of the cost for a comparable credit course at any one of Pennsylvania's State universities.

***What is a placement test?*** A placement test is given to students who are interested in taking college courses at LCCC. Students must obtain a minimum score to be eligible for college classes. More information regarding placement testing can be found on [lccc.edu](http://lccc.edu).

***Dual Enrollment requirements?*** Students must be Level II or higher in their lab programs and maintain a minimum of a "B" average to participate in Dual Enrollment. Students must also have good attendance and no discipline referrals. The tuition and associated costs for dual enrollment courses must be paid by the student/parent.

***Want to see if Dual Enrollment is right for you?*** Our free, one credit course "**The College Experience**" is an opportunity to explore dual enrollment. In "**The College Experience**" you'll learn what to expect if you go to college, as well as what will be expected of you. Upon completion of the course, students have the option of taking a placement test to determine eligibility for future classes at a reduced rate paid by the student/parent.

Lehigh Career & Technical Institute does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs or activities. Inquiries may be directed to LCTI's Title IX Coordinator or the Section 504 Coordinator at 4500 Education Park Drive, Schnecksville, PA 18078 or 610-799-1358.





# 2019-2020 COURSE DESCRIPTIONS



## **CAREER/COURSE PLANNING**

For information on careers, career interest assessments, college information, and a list of high school courses recommended for the students intended career path please refer to [www.careercruising.com](http://www.careercruising.com). We use this site with our students when we meet with them to aid in career planning and course selection.

Username: nlhs  
Password: bulldogs

**NOTE: ALL HIGH SCHOOL COURSES MEET DAILY AND RECEIVE 1 CREDIT  
UNLESS OTHERWISE NOTED!**

## **NONBINDING NOTE**

Some described courses may not be offered in a given year due to matters such as low enrollment, insufficient staffing, or budgetary constraints.





## ART

### Courses Offered (listed by level of difficulty)

Crafts  
Theater Arts and Design  
Fine Arts I  
Painting I  
Visual Communications I  
Yearbook Publications (NEW)  
Fine Arts II  
Painting II  
Visual Communications II  
Painting III (Independent Study)  
LCCC Painting I

### CULTURES AND CRAFTS: METHODS AND MATERIALS (15063) - Prerequisite: None

Are you “Crafty” and like to make things with your hands? This course is designed as a solid “hands-on” art class to encourage students to explore and create craft work from many cultures and historical periods. Students shall become craftsmen in learning different crafts from various world cultures and using their talents to create wonderful works of art. It is an exciting course which recognizes crafts as serving functional and non-functional needs to society and offers an informal acquaintance with exemplary works of art. Some craft forms covered in this course may include: Design; Ceramics/clay (on and off the potter’s wheel); Paper Mache; Sculpture; Jewelry; Glass; Metal smith; Woodworking; Stained glass; Weaving; Fiber Arts; Fabric Design; and Seasonal Crafts.

### YEARBOOK PUBLICATIONS (15076): Prerequisite: None

The purpose of this course is to create a high quality, contemporary, all-color yearbook that represents the events of the current school year. This active course will enable students to learn the processes of actually **producing our High School’s fun memory book** for everyone to enjoy for years!

This is an active, hands-on computer-generating yearbook course for beginners and experienced alike and covers the fundamentals of responsible journalism, copy writing, layout and theme design, photography, advertising and marketing, and developing a budget/financing the book with fundraising, as we share responsibilities to meet our deadlines. A daily emphasis on creating a “factual time journal” that is creative and artistic will be made as students **learn or expand** on their knowledge of Adobe Photoshop, Excel, Word, and the actual on-line program offered by the publishing company.

Outside individual or teamwork will need to be done in order to assure deadlines are met. Students will also create a portfolio representative of their work and knowledge from the course, and communications with the Student Editors throughout the semester.





### **THEATRE ARTS AND DESIGN (15071)** - Prerequisite: None

The “hands-on” theatre arts and design course introduces students to the performance and production of the theatre as an art form. Both “On Stage” and “Behind the Scenes” processes will be developed. After the creation of simple sets and props students will team together to create simple scenes. Students will explore the theatre as a means of expression through study of theatre history as well as contemporary theatre arts. Students will also explore the development of stage design including sets, props, and lighting design. Students will

explore the safe use of theatrical equipment and its' importance to the overall effectiveness of a production. Through studying theatre as an expression of both history and culture, students will explore the way in which theatre affects and is affected by its societal context. This course is designed in connection with the PA State Standards for the Arts in theatre education. Some units/projects covered in this course may include: Set and Prop Sketching/Design , Costume and Make-up Design, Traditional and Contemporary Performance (Blue Man Group, Mime, etc.), One Act Plays, Play/Script Analysis, Voice and Movement, Improvisation, Theatrical Equipment, Stage Direction and Management.

### **FINE ARTS I (15064)** - Prerequisite: None

Interested in taking an Art course where you are GUARANTEED you will learn to draw, paint, or sculpt? This is the course for you! Students shall explore the basic foundations of Fine Arts in this course to include drawing, painting, sculpture, and graphics. It is an exciting fundamentals course, which guides the beginner or student with an art interest into successfully creating works of art. Using music, multi-sensory aids, and various art media, the student shall learn processes used in designing an expression, which demonstrates skill, creativity, and dedication. Students are guaranteed they will gain more confidence and create solid art works of which they are proud! **Some units covered in this course include: Pen/ink and pencils (graphite); Clay; Charcoals; Pastels; Foam Sculptures; Printmaking; Tempera; Plaster; Oil/Acrylic paint; Cartooning; Watercolor; Sign making/calligraphy; and Mixed media.**

### **PAINTING I (15066)**- Prerequisite: None

Painting! Painting! ...and more painting! After reviewing simple drawing, color, and design concepts, students shall spend class time creating paintings on paper, canvas board, raw canvas, and found objects. This is a stress-free and beginner's “how-to” course designed for the student interested in trying something new, expanding on a talent, or starting a hobby. Students will experiment and create artwork using many different paints, brushes, and tools and learn specific techniques with reference to Old and New Masters of Art. After developing painting skills, the student shall be encouraged to express his/her own style in further paintings, both in and outdoors.

**Some units covered in this course include: Color theory and harmony; Oil paints; Watercolor; Mixed media; Tempera; Brushes, palette knives; and Acrylic paints.**

### **VISUAL COMMUNICATIONS I (15069)**- Prerequisite: None

Do you have a graphic style? Interested in Pop Culture or Op art? In this course students will learn traditional and contemporary means of mass producing their artwork. Students will develop art artworks using manual and mechanical processes, printing presses, text, computer art programs, Microsoft Publisher, and Adobe Creative Suite. Through the guided exploration of the history of the four basic lettering styles and their variations, students will be introduced to mechanical drawing and create art forms using these styles. The graphic arts will be emphasized throughout the exploration of verbal and non-verbal expressions of art. Lessons shall include various writing instruments, paints, ink and airbrushing, while students learn about advertising, illustration, and printing on many grades of papers (including handmade), fabric/t-shirts, and photography. It is an active course which is designed for students with an interest in learning to develop means of mass producing their artwork while studying calligraphy, printing processes, advertising, computer-generated art, photography, and their functions in today's society.

**Some units covered in this course may include: Graphics-** Fundamentals of printing processes including, Silk Screening; Creating Stencils/Airbrushing; Embossing; Engraving/Intaglio Prints; Block Prints; Mono-typing; and other printing techniques. **Desktop/computer Imagery-** Basic design principles and how they relate to visual communications including, Typography; Computer Generated Graphics; Advertising/Media Literacy; Mechanical Drawing; Adobe Creative Suite, etc. **Photography-**





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Fundamentals of photographic technologies including, digital and manual photography, Digital Photography; Stop-Motion Animation; Pinhole Cameras; and Basic Darkroom Photography

### **FINE ARTS II (15065)**- Prerequisite: 75% or higher in Fine Arts I

Using the skills and knowledge gained from the Fine Arts I course, students will be challenged in Fine Arts II by “polishing their talents” on more advanced projects and processes. Further exploration in drawing, painting, sculpture, and graphics includes using various lights, more expanded and in-depth Art History research, design formats, and combining and using more challenging art media. Each marking period

will offer students an opportunity to independently develop their own styles of art while using the Old and New Art Masters as their mentors. This course is for experienced art students who enjoy the fine arts and wants to continue developing their skills in art.

**Some units covered in this course include: Pen/ink and pencils; Clay; Charcoals; Plaster; Pastels; Embossing; Acrylic paints; Printmaking; Oil paints; Bas relief; Stone carving; Metal smith; Wire Sculptures; and Casting.**

### **VISUAL COMMUNICATIONS II (15070)**– Prerequisite: 75% or higher in Visual Communications I.

Students whom have successfully completed Visual Communications I may continue their technical, calligraphy, printmaking, computer-art and photography skills in this advanced computer generated art class! By further mastering prior techniques developed in Visual Communications I, students shall create more independent advanced art work in this course alongside of other experienced student artists. Advanced airbrushing, photo emulsion silk-screening, mechanical drawings, and advertising design shall be explored and created with reference to Old and New World Masters. Advanced photography skills to include lighting, enlarging, double exposures, and various darkroom techniques will be studied. Students will be further challenged with Adobe Creative Suite in creating computer art graphics. Designing an art form which represents a planned, skillful expression to be reproduced both on and off the press, students shall further explore the advertising world and its relation to today's society.

**Some units covered in this may course include: Acid Etching/Intaglio; Photo Serigraphs; Collagraphs; Glass Etching; Airbrushing; Computer Graphics; Advanced Calligraphy; Advertising Design; Product/Package Design; 35 mm/Digital Photography; Advanced Darkroom Practices; Mechanical Drawings; and Architectural Studies.**

### **PAINTING II(15067)** - Prerequisite: 75% or higher in Painting I(This course can also be taken for college credit. See LCCC Painting I below)

So, you've got the skills, but what's next? This course shall be offered to painters who have completed Painting I, and are interested in continuing to explore new techniques while further developing their own style of expression. Combining knowledge, skills, experiences and positive attitude gained in Painting I class, the art student shall create authentic art forms which are representative of integrity, innovation, and insight. Students shall use prior skills and more familiar principles of design in advancing the content of their paintings. Referencing Old & New World Masters, students shall further explore painting with others who have similar skills or interests in the art both indoors and outside the studio classroom.

**Some units covered in this course may include: Acrylic paints; Mixed media; Oil paints; Airbrushing; Painting on paper, raw canvas, canvas boards, and found objects.**





**PAINTING III – An Independent Study (15068)** - Prerequisite: 80% or higher in Painting II and application submitted for approval. This course is available to seniors only.

This independent study in painting course is specially designed between the student and the instructor to meet the student's specific needs! This is a self-directed curriculum under the watchful eye of the instructor. The student sets goals while creating products that reflect personal talent and interests. Each lesson shall reflect the results of the "planning sessions" with the instructor and the student's thumbnail sketches. Lessons will include the elements and principles of design, rubrics, and an agreed upon deadline.

This course is for the student who is highly self-motivated and advanced painters who may be considering art school or continuing painting as a serious hobby. Students are encouraged to gather necessary materials to support their own successes. It is a course for the mature student who enjoys painting, is highly self-motivated and talented.

**Some units covered in this course may include: Acrylic Paints; Oil Paints; Development of Individual Style; Portfolio design for Art School admissions; Landscapes; Portraits; Mixed Media; and Still Life**

**LCCC PAINTING I (15075)** - This Painting II course is available for college credit. Prerequisite: Earned grade average of 75% or higher in Northern Lehigh's Painting I and/or teacher recommendation.

**Meets Daily- 1 High School Credit & 3 LCCC credits**

This course includes basic instruction in form, color, value, composition, and historical material. The media will include oil and acrylic and may include watercolors. Students are encouraged to create works driven by personal expression.





## BUSINESS/COMPUTERS

### Courses Offered(listed by level of difficulty)

Computer Applications

Future Ready Skills (**Graduation Requirement**) \*New name

Accounting I

Software Development & Marketing (NEW)

Accounting II

### COMPUTER APPLICATIONS (15370) - Prerequisite: None

This course is uniquely designed for students preparing for success in high school, college, and beyond through efficient and proficient use of computer software. Students will experience word processing, desktop publishing, and presentations. This course focuses on database and spreadsheet computer application software in business and daily life. The ability of spreadsheets to properly describe numeric information, show trends, and assist in making future decisions is a key to financial success. Students will analyze and construct databases that can be sorted and queried in multiple ways.

**Some units covered in this course include: integration and presentation of spreadsheet and database information. Advanced levels of online research, simulations, and Web 2.0 Tools are current elements that flow naturally into this dynamic, hands-on course.**

### FUTURE READY SKILLS (15371) - Prerequisite: Juniors and Seniors (Graduation Requirement)

21st Century Technology Skills is a course designed to benefit all students. This course discusses important topics for everyday living in our challenging and dynamic society. Students will learn more about their role as a consumer, a worker, and a productive citizen through the use of available technology, such as Web 2.0 tools and a number of web-based applications. With the use of technology, hot topics in Digital Citizenship will be discussed throughout the semester. Other course topics include personal money management strategies, such as how to properly budget and save, how to establish and maintain a good credit standing and how to prepare personal income taxes. Students will explore careers and create a digital Career Portfolio including a resume, letters of application, and letters of recommendation from personal references. They will complete a general job application and discuss interviewing. This career unit will also include guest speakers for job interviews and current job search trends. This course will also explore the areas of business ownership, financial management and marketing. In covering these topics, students will be presented with real life experiences that will best prepare them to grasp new technological trends for success in high school, college and beyond.

### ACCOUNTING I (15636) – Prerequisite: Sophomore, Junior, or Senior students.

This beginning accounting course provides a basic knowledge of accounting principles and techniques that will enable the individual to obtain employment in an entry level accounting or bookkeeping position. It also provides for a solid foundation either for those wishing to take the advanced Accounting II course or for those who will further their education in accounting at a business school or college. The appropriate accounting techniques stressing both these areas are emphasized in the Accounting I course. An online Accounting workbook is featured throughout this course. This allows the student experience with online course formats. Because of its wide appeal, the Accounting I course is available to any student.

**Some units covered in this course include: Accounting careers and concepts; Starting an accounting system; The effect of business transactions on a business; Analyzing transactions into debit and credit parts; Journalizing business transactions; Posting; Understanding and recording financial statements; Working with six and eight column work sheets; Completing an accounting cycle for a partnership using a combination journal; and Understanding various kinds of journals and the use of ledgers.**





### **ACCOUNTING II (15637)** - Prerequisite: Accounting I

This advanced accounting course provides a basic knowledge of accounting principles and techniques with special emphasis on the accountant in a corporation. This course will further enhance the opportunities available to the student who seeks an entry level accounting or bookkeeping position. It also prepares the students who wish to further their education in accounting at a business school or college. The appropriate accounting techniques, stressing both these areas, are emphasized. This course will be taught entirely on a computer to familiarize the student with modern accounting applications in today's offices.

**Some units covered in this course include: Recording transactions using special journals; payroll records; payroll accounts, taxes, and reports; federal income tax forms; accounting for uncollectible accounts; accounting for plant assets and depreciation; accounting for notes and interest; a voucher system; end of fiscal period work for a corporation; a petty cash and inventory system**

### **SOFTWARE DEVELOPMENT & MARKETING (15372)**

Students will be using critical thinking and problem solving to design a web base game and develop a creative integrated marketing strategy. Students will apply all aspects of marketing advertising/PR campaigns: sales promotion and personal selling. Students are involved in creating print and digital advertising. To design and market their game, students will use web base software (Gamestar mechanic, or code.org), podcast (Audacity), design software (Adobe Photoshop, Adobe Fireworks, Office, Google docs). The Intro to App lab in code.org will be used to give the students a better understanding of the programming involved in their game.







## ENGLISH

### Core Courses Offered

#### 9<sup>th</sup> Grade

English I  
Academic English I  
Honors English I

#### 11<sup>th</sup> Grade

English III  
Academic English III  
Honors English III  
Advanced Placement (AP)  
English Language **(New)**

#### 10<sup>th</sup> Grade

English II  
Academic English II  
Honors English II

#### 12<sup>th</sup> Grade

English IV  
Academic English IV  
LCCC Research & Composition  
Advanced Placement (AP) English Literature

#### Electives Offered

Public Speaking  
SAT PREP ERW  
Creative Writing  
Journalism & Media Studies I **(New)**  
Journalism & Media Studies II **(New)**  
Apocalyptic Fiction & Film **(New)**

**ENGLISH I (15113)** Prerequisite: Successful completion of English 8

**ACADEMIC ENGLISH I (15116)**: Recommended for college-bound 9<sup>th</sup> graders

English I is designed to prepare students for academic success in grades 10, 11, and 12. English I will develop literature and expression skills. Students will read, analyze, and interpret literature across many genres. Students will demonstrate proficiency in written and spoken expression.

**Some units covered in this course include: short stories, novels, mythology, the writing process, and vocabulary development.**

**HONORS ENGLISH I (15118)** Prerequisite: Completion of Honors English Application, recommendation of Grade 8 English teacher, and a grade of 90% or higher in Grade 8 English.

Honors English I is an accelerated version of Academic English I. Reading skills, vocabulary development, and the writing process will be stressed. Reading & discussion of various literary genres will be a major portion of the course. The research paper will be introduced and will be required. Grammar and usage will be covered as the need arises. Written practice for the KEYSTONE will be addressed. Shakespearean drama will be introduced. Summer reading is required.

**Some units covered include the following: Short stories; KEYSTONE Preparation; the Writing process; Drama; Reading skills; The Research paper; and the Novel.**

**ENGLISH II(15123)** – Prerequisite: Successful completion of English I.

**ACADEMIC ENGLISH II (15126)**: Recommended for college-bound 10<sup>th</sup> graders.

English II is designed to prepare students for academic success in grades 11 and 12. English II will develop literature and expression skills. Students will read, analyze, and interpret literature across many genres. Students will demonstrate proficiency in written and spoken expression. Some units covered in this course include: short stories, novels, drama, the writing process, and vocabulary development.





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**HONORS ENGLISH II (15128)**—Prerequisite: Completion of Honors Application and a grade of 90% or higher in Academic English I or 80% or higher in Honors English I.

An accelerated version of academic English I, Honors English II introduces the literary genres of the short story, novel, drama, and poetry. Vocabulary development is stressed along with the writing process and common methods of development. A culmination of these writing skills will be evident in the research paper. Independent reading, research, Socratic seminars, theme analysis and a class play are required. Summer reading is required.

**Some units covered in this course include: The Novel; The Short Story; Shakespearean Drama/Histories; Poetry; Nonfiction; The Writing Process; and The Research Paper**

**ENGLISH III (15132)**—Prerequisite: Successful completion of English II.

**ACADEMIC ENGLISH III (15136)**: Recommended for college-bound 11<sup>th</sup> graders

Academic English III is a college preparatory course for students who anticipate formal instruction beyond high school.

Emphasis is placed on an intensive study of literature and writing with a connection to American history. Students will also read and analyze selected novels, short stories, poetry, and essays. Vocabulary will be studied in preparation for the SAT and for better understanding of the assigned literature. Writing and reading exercises will prepare students for the KEYSTONE examination. In addition, process writing, with emphasis on the literary theme and the five-paragraph essay, will prepare students for the skills necessary to achieve success in future courses and, eventually, college.

**Some units covered in this course include: The American Drama; the American Novel; Comprehensive study of American Literature through selected short stories, poems, and essays; SAT Preparation; KEYSTONE Preparation; The Writing Process and Composition.**

**HONORS ENGLISH III (15138)** -Prerequisite: Completion of Honors Application and a grade of 90% or better in Academic English II, 80% in Honors English II.

An accelerated course, Honors English III entails critical analysis of American literature and authors. Students will trace the history of American literature and explore every literary genre and many literary devices. Early in the course, students will write several paragraphs, impromptu and planned, and will eventually work toward a multi-paragraph paper that utilizes specific literary theories and school of criticism (literary analysis). A culmination of student writing skills will be evident in the research paper. Once students are accepted in Honors English, they will be given a summer reading list of at least three major literary works in which they will be evaluated utilizing differentiated instruction.

**Some units covered in this course include: Various units based on major literary movements in America; Arthur Miller's The Crucible; Theme writing; Oral expression; KEYSTONE Reading/Writing Preparation; and Vocabulary Enrichment.**

**ADVANCED PLACEMENT (AP) LANGUAGE AND COMPOSITION (15153)**: Prerequisites: Students need to show an ability for rigorous study and application. 80% of higher grade in Honors English II or a 90% or higher in Academic English II. Application must be submitted, including a writing sample to demonstrate 5-paragraph essay skills and includes an agreement to complete summer reading and writing assignments.

In essence, AP Language and Composition creates the experience of a college-level composition class. Students learn to approach texts with attention to detail and an understanding of purpose. Students will evaluate the effectiveness of arguments and use what they have learned to form their own arguments and positions on controversial topics. Students will also learn how to gather resources on a topic (they will also be given situations where three resources are provided) and how to synthesize those resources into informed essays. This course will use some of the same literature selections as other 11<sup>th</sup>-grade English courses.

AP Language and Composition is a course in part designed to prepare students for the AP Language and Composition test. This test centers on assessing a student's reading and writing skills. This test is designed to assess whether a student has developed college-level applications of these skills. Writing skills focus on three modes: analysis (of argument), open argument, and synthesis. Nonfiction sources are prioritized, but fictional literature is also integral to this courses (as a source of ideas for argument).





**ENGLISH IV (15143)** - Prerequisite: Successful completion of English III.

**ACADEMIC ENGLISH IV (15146)**: Recommended for college-bound 12<sup>th</sup> graders.

In twelfth grade, students move towards academic independence and college-and-career readiness. Students grapple with demanding texts by integrating previously learned skills to analyze and evaluate the writer's premise, purpose, and argument in both informational and literary text. Students conduct sustained research and engage in sharp distinctive writing while making informed decisions, solving problems, evaluating the credibility and accuracy of sources, and noting discrepancies among the resources. Using previously learned competencies, students master skills such as asking their own questions, solving their own problems, and leading their own class discussions. Finally, students continue to develop the skills in reading, writing, speaking, and listening to master purposeful and independent expression.

**ADVANCED PLACEMENT (AP) ENGLISH LITERATURE AND COMPOSITION (15149) :**

Prerequisite: Completion of AP Application and a grade of B- or better in Academic English III or Honors English III.

Meets daily – 1 Credit

The Advance Placement Literature and writing course follows the guidelines set forth by the AP English Course Description. The literary genres of prose fiction, drama, and poetry from the sixteenth century to contemporary times will be studied within the structure of this course. Readings and analysis will occur as group discussions and as homework assignments. Written and oral interpretation will also analyze how social and historical values influenced literary forms and language. An exam comprised of both an objective and an essay section will follow each literature unit. A variety of writing modes will include writing to understand, to explain, and to evaluate. Assignments calling for complex analysis involving structure, style, and themes will culminate in a research paper on a literary topic. Other writings will include expository essays, extended analysis, timed in class responses, and a class journal that will allow for informal exploratory activities. Opportunities to revise and rewrite after receiving instructional feedback from your teacher and/or peer editor will be afforded. These revisions will work to improve sentence structure, to achieve coherence, and to maintain a consistent voice. All formal essays will be evaluated on a nine point AP grading scale. Weekly vocabulary lessons will encourage the use of a rich, varied, and exact vocabulary and will raise an awareness of the resources of language.

**LCCC RESEARCH & COMPOSITION (15150)** –Please refer to Dual Enrollment Section of Program of Studies on page 64-66.

**CREATIVE WRITING (15147)** – Prerequisite: Completion of Creative Writing Application; sophomore, junior, or senior standing; an 80% or higher English grade.

This course provides an environment which fosters creativity and allows students to stretch their imaginations through writing. Students study professionally written work which acts as a model for student projects including: poetry, personal memoirs, interview profiles, short stories, art-inspired poetry, etc. In the spirit of creating a community of writers, students are encouraged to publish and orally share their work in the school environment. Students are also required to submit a project to a professional publication for publication. A daily journal is a major requirement for this course as well as reading aloud all final writing samples for peer evaluation.

**Some units covered in this course include: Personal Writing; Expressive Writing; Descriptive Writing; Narrative Writing; Column Writing; Critical Review Writing; Literary Writing; Poetry Writing; Persuasive Writing; Memoir Writing; Writing About Literature; and Writing for Publication.**





**PUBLIC SPEAKING (15168)** - Prerequisite: Sophomores, juniors, or seniors only.

Students enrolled in this course will study and apply effective methods of both verbal and nonverbal communication. Different types of speeches and characteristics of effective speakers will be emphasized through use of both original and professional works. Students will give approximately 10 – 12 speeches such as: speech to inform, speech to persuade, speech of presentation, demonstration speech, personal experience speech, speech to entertain, pet peeve, etc. Students are required to maintain a Reflection Log which will be evaluated twice during the semester.

**Some units covered in this course include: Perception of self and other; Establishing a Communication Foundation; Interpersonal Communication; Principles Of Speech Communication; Informative Speaking; Persuasive Speaking; Demonstration Speaking; Speaking to Entertain; Speaking to Present; and Interviewing for Information.**

**SAT PREP ENGLISH, READING, WRITING (15098)**: Prerequisite: Juniors

Meets every other day - .5 Credit

This course is aimed at high school juniors who are planning on taking the SAT exam. Students will learn about the structure and scoring of the SAT exam. Practice SAT exams will be frequently used to gain familiarity with both multiple choice and student-produced response questions. Critical English material needed for the exam will be reviewed by instructors.

**JOURNALISM & MEDIA STUDIES I (15171)**: Prerequisite: Offered to students in grades 10-12. Completion of Journalism Class Application. Must Regularly Contribute to (or Be Active Staff Writer or Editor of) The Slate student newspaper.

**Recommended for** college-bound students interested in some area of the Journalism field and/or a writing major.

Students will analyze the structure of all media with a focus on newspaper writing, but will also cover cable news channels, the Internet vs the printing press, and the role of social media in today's world of obtaining nonstop information. The course will cover basic Journalism ~ getting the story *right* before getting the story *first*, and the structure of news writing...how to say as much you can with as few words possible. We will also put into practice the "inverted pyramid" where the main facts go first and dwindle down to the "nitty gritty." Sectional writing will be covered and practiced (sports, opinion, feature) and a monthly mandatory submission to The Slate, our student newspaper.

**JOURNALISM & MEDIA STUDIES II (15172)**: Prerequisite: Offered to students in grades 10-12. Must have achieved an A or B in Journalism & Media Studies I, Must Regularly Contribute to (of Be Active Staff Writer or Editor of) The Slate student newspaper.

**Recommended for** college-bound students interested in some area of the Journalism field and/or a writing major.

The course continues into the second section that will cover deeper investigative journalism, more rigorous stories with tougher interview methods, analyses of various questioning concepts, a study of famous reporters/news anchors, editing and condensing sentences/paragraphs.





### **APOCALYPTIC FICTION & FILM (15180): Prerequisite: junior or senior standing; an 80% or higher Academic or Honors English grade.**

Apocalyptic Fiction is a genre-based English elective that contains science, psychology, sociology, and research components and includes various forms of media and text that speculate about a scenario that will either destroy life or, more likely, will drastically alter life as we presently know it.

Students approach material critically in search of overarching themes that transcend a singular text. Students will discuss and debate the psychological and sociological implications of these life-altering scenarios. Students will evaluate how effectively the thematic messages of warning are conveyed and how the genre has evolved with the increase of technology and biological advancements. Students will also analyze how context and culture influence the author's purpose in writing apocalyptic fiction. Students will engage in research of a present-day apocalyptic topic-of-interest and will use that research as a basis for creating their own apocalyptic written piece. This is a novel and media-based course with a large reading component.

**Some units/activities covered in this course include:** Film critique, historical context analysis, a thematic analysis essay, debates/Socratic seminars, Scholarly research into fields of science, psychology, and sociology, argumentative presentation based on scholarly research, a how-to-survive demonstration speech, and a short story project





## FAMILY AND CONSUMER SCIENCE

### Courses Offered (listed by level of difficulty)

Foods  
Child Development  
Singles Life  
Food Science  
Child Development -The Early Years  
LCCC Fundamentals of Early Childhood Education

### FOODS (15024) - Prerequisite: None.

This course is designed to entice all students, boys and girls alike. It is packed with new food preparation experiences and information. Study will begin with basic food preparation and progress to more advanced food techniques and skills. Nutrition education will have a special emphasis and the students will complete labs related to the six main nutrients needed by the body. Canning homemade jams and jellies and tomatoes that will then be used on homemade bread and pizza/stromboli are some of the new and unique labs the students will do. In addition the students will make various quick breads, dessert and meat pies, butter and foam cakes.

**Units covered in this course include: Kitchen fundamentals; Food budgeting; Cooking terms and techniques; Safety and sanitation principles; Nutrition analysis and the body; Meal preparation and basic baking concepts.**

### CHILD DEVELOPMENT (15025) - Prerequisite: None.

This course is designed for the student who wants to learn about child development and child care for career opportunities or who may be planning to go into a career that involves working with children. The course will address such issues as prenatal care, stages of labor, physical development in infants, toddlers and preschoolers, and discipline of children to name a few. This course would be a benefit to any student entering college in the fields of education, nursing, early childhood education, and social services. This course can also be beneficial to students who plan on babysitting. Throughout the course, the students will participate in field trips to child care centers and the elementary schools to observe and work with young children.

**Units covered in this course include: Family Life Cycle; Child Development Theorist; Observing Children and how they learn; Preparing for Parenthood; Prenatal development; Childbirth; Physical, Emotional, Social and Intellectual development of children; Health and Safety.**

### SINGLES LIFE (15022) - Prerequisite: None.

Moving out on your own or are you college bound after graduation? If so, this course is for you! This course is designed to help the young adults adapt to those new and difficult situations that will arise when out in life and on their own. Job interviewing, the decision-making process, effective communication skills, how to make nutritious, easy meals and snacks, and tips on renting/buying an apartment or house, are only a few of the topics to be discussed.

**Units covered in this course include: Personal Development; Communication Skills; Job Seeking Skills; Banking Principles; Decision Making Process; Relationships Skills; Basic Cooking Techniques; Time management; Consumer Rights and Responsibilities; Budgeting; Home Buying and Renting; and Housing and Home Furnishing Skills.**





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### **FOOD SCIENCE (15023)** - Prerequisite: 75% or better in Foods.

Are you interested in becoming a food science researcher, a dietitian, or pastry chef? How about owning your own catering business or do you just want to know more about the principles of cooking? This foods science course is designed for students who wish to study advanced nutrition and food science in college or trade school. Cooking more advanced dishes and more emphasize to detail and presentation of food will be studied. Study will begin with a review of the basic foods course content and then progress to more advanced food science concepts.

**Units covered in this course include:** Advanced Nutrition; Food Supply; Food Evaluation; Career Exploration; Science of Candy Making; Meat and Poultry Cookery; Fruit and Vegetable Cookery; Protein Substitutes; Cooking Skills and Techniques.

### **CHILD DEVELOPMENT THE EARLY YEARS (15026)** – Prerequisite: 80% or better in Child Development (Will be offered 2019-2020 School Year)

Students will continue to study about child development and child care career opportunities. The course will review and expand on the topics of physical, emotional, social, and intellectual development of preschoolers, elementary and early teenagers. This course is ideal for students that are thinking of going into any area of education, nursing, or social services. Trips to the elementary schools and/or nursery schools will be intricate part of the course.

**Units covered in this course include:** Discipline; Emotional development; Physical development; Social development; Intellectual development; Toy selection and evaluation; Disabilities and evaluation; and Health and safety.

### **LCCC FUNDAMENTALS OF EARLY CHILDHOOD EDUCATION (15030)** - Please refer to the Dual Enrollment section of the Program of Studies.





## FOREIGN LANGUAGE

### Courses Offered

Spanish I  
Spanish II  
Honors Spanish III  
AP Spanish Language & Culture

### SPANISH I (15516) - Prerequisite: None.

The emphasis in this course is directed toward the four basic language skills: speaking, listening, reading, and writing. This exciting and useful foreign language is spoken extensively in the classroom to develop skills of comprehension and conversation. These skills are reinforced through conversational activities and cued writing. An emphasis on basic understanding and communication is stressed. Basic grammar and vocabulary are emphasized in the course. Students are expected to complete projects that integrate the use of technology to reinforce writing and vocabulary skills. **Some units covered in this course include: greetings, school, describing people & things, family, weather, present tense, expressing likes/dislikes, asking/answering questions, calendar, time**

### SPANISH II (15526) - Prerequisite: Successful completion of Spanish I.

A basic review unit at the beginning is used to review first level work (Spanish I). The four areas stressed in level one are also stressed in level two: speaking, listening, reading, and writing with a grammar emphasis on preterit tense. Continuing oral instruction and comprehension are developed through the use of interactive group/paired activities and the integration of computer technology. Writing/reading skills are further developed. Evaluation is done by oral and written testing. Spanish II provides the background and skills development necessary to build increasing knowledge of the language. Students are expected to complete activities which may include Country Presentations and Photo Stories. **Some units covered in this course include: clothing and colors, body & health, shopping, sports, foods, house & rooms, restaurant, places & location, daily routines, present tense, past tense, commands, number to 1,000,000, making comparisons.**

### HONORSSPANISH III (15536) - Prerequisite: Teacher recommendation and/or 85% or above average in Spanish II.

This course will review previously learned grammar and vocabulary and introduces a variety of tenses and grammar concepts. The students will thoroughly learn the past tenses and their uses by the end of the course. The use of computer technology and listening exercises will support the curriculum. There will be an added emphasis on speaking the language in the classroom. Oral assessment, small group work and dialogue, and short story writing will be used to enhance listening comprehension, grammar, and vocabulary. Students are expected to complete activities which may include creating narratives & dialogues, Photo Stories, podcasts, various forms of oral assessment. **Some units covered in this course include: Vocabulary: weather, home activities and chores, health and exercise, nationalities, animals, jobs/employment, the future, travel. Grammar: commands (formal, familiar, and plural), preterit vs. imperfect (past tense), future, and conditional, Por vs. Para, pedir vs. preuntar, double object pronouns.**







**AP SPANISH LANGUAGE & CULTURE (15546)**- Prerequisite: a grade of 85% or higher in Honors Spanish III and/or teacher recommendation.

AP Spanish Language and Culture is a rigorous college-level course which is taught almost exclusively in Spanish. It emphasizes communications by applying all three modes (the interpretive mode of communication through podcasts, videos, and readings, and the interpersonal and presentational modes to share thoughts on a variety of topics ranging from literary works to interdisciplinary topics including politics, history, and sociology). This course engages students in an exploration of culture in both contemporary and historical contexts. The course develops students' awareness and appreciation of cultural products (books, music, etc.), practices (patterns of social interactions within a culture and comparing other cultures to one another), and perspectives (values, attitudes, assumptions). This course will be structured around six themes (beauty and aesthetics, contemporary life, families and communities, global challenges, personal and public identities, and science and technology).

## **FRENCH AND GERMAN LANGUAGE OFFERINGS!**

Northern Lehigh High School will also offer German and French to all students through Bulldog Academy, our online program. If your student is interested in taking either of these languages, please have them select it at the time of scheduling.

Please call the guidance office at 610-767-9837 if you have any further questions.





# MATHEMATICS

## Courses Offered

### Algebra

- Algebraic Concepts
- Algebra IA
- Algebra IB
- Academic Algebra IA
- Academic Algebra IB
- Honors Algebra II

### Geometry

- Geometry
- Academic Geometry
- Honors Geometry

### Trigonometry

- Algebra II/Trigonometry
- Academic Algebra II/Trigonometry
- Honors Trigonometry

### Calculus

- Pre-Calculus (**previously Intro. Calculus**)
- Calculus
- LCCC Calculus And Analytic Geometry I
- AP Calculus AB

Probability and Statistics

SAT Prep Math

**ALGEBRAIC CONCEPTS (15315)**: Prerequisite: 8<sup>th</sup> grade Pre-Algebra; also considered is PSSA scores and teacher recommendation

Due to the increase demands by the core curriculum and in order to prepare students for the Algebra I Keystone Exam, the Algebra I curriculum will be split into separate courses. Algebraic Concepts will be the first course offered. **Note: Students who are scheduled for this course will automatically be scheduled for Algebra IA and Algebra IB.**

**Units covered: Foundations for Algebra, Solving equations, Solving Inequalities, Data Analysis**

**ALGEBRA IA (15318)** - Prerequisite: Algebraic Concepts

Due to the increased demands put in place by the Core Curriculum and in order to prepare students for the Algebra I Keystone Exam, Algebra I will be split into two separate courses. **NOTE: Students who are scheduled for Algebraic Concepts will also take Algebra IA in lieu of an elective during their 9<sup>th</sup> grade year. They will then take Algebra IB in the fall of their 10<sup>th</sup> grade year.**

**Units covered in these courses are: Equations & Inequalities, Graphing Linear Equations, Systems of Equations, Polynomials, Rational Expressions, Square Roots, Quadratic Equations, and Data Analysis.**





**ALGEBRA IB (15137)** - Prerequisite: Algebra IA

Due to the increased demands put in place by the Core Curriculum and in order to prepare students for the Algebra I Keystone Exam, Algebra I will be split into two separate courses. **NOTE: Students who are scheduled for Algebra IA will automatically be scheduled for Algebra IB.**

**Units covered in these courses are: Equations & Inequalities, Graphing Linear Equations, Systems of Equations, Polynomials, Rational Expressions, Square Roots, Quadratic Equations, and Data Analysis.**

**ACADEMIC ALGEBRA IA (15301)** – Prerequisite: 80% in Pre-Algebra; also considered is PSSA scores and teacher recommendation

Academic Algebra is recommended for any student who plans to further their education beyond high school. **Some units covered in this course include: Linear equations; Graphing; Linear inequalities; Linear systems; Factoring; Fractional equations; Rational expressions; and Algebraic expressions (monomials, binomials, polynomials)**

**ACADEMIC ALGEBRA IB (15302)** Prerequisite: Academic Algebra IA or 90% or better in Algebra IA, or teacher recommendation

Students will review and expand on the topics covered in Academic Algebra IA. Student will be introduced to new topics, which will provide a foundation for any advanced math courses in high school or college. This course is strongly recommended for any student who plans a college or university degree.

**Some units covered in this course include: Linear equations and Inequalities; Imaginary Numbers; Absolute value involving equations and inequalities; Rational Expressions; Simplifying Polynomials; Distance and Slope; Quadratic Equations and Inequalities; Graphing Linear Equations; Using Formulas; Parallel and Perpendicular Lines; Radicals; and Systems of Equations.**

**HONORS ALGEBRA II (15322)** – Prerequisite: 80% or better in 8<sup>th</sup> grade Algebra I, and/or teacher recommendation.

This course will expand on topics covered in Algebra I. Students will also be introduced to new topics which will provide a foundation for any advanced math courses in high school or college. This course is strongly recommended for students who excel in mathematics and/or intended on pursuing a career that requires a high level of mathematical skills.

**Some Units covered in this course include: Linear Equations and Inequalities; Absolute value involving equations & inequalities; Simplifying Polynomials; Quadratic Equations and Inequalities; Using Formulas; Radicals; Imaginary Numbers; Radical Equations; Rational Expressions ; Complex Rational Expressions; Synthetic Division; Distance and Slope; Graphing Linear Equations; Parallel and Perpendicular Lines; Linear Functions; Systems of Equations; Dimensional Analysis; and Arithmetic and Geometric progressions and series.**

**GEOMETRY (15323)** - Prerequisite: Algebra I and/or teacher recommendation.

**ACADEMIC GEOMETRY (15303)** - Prerequisite: 80% in Algebra IB, or 8<sup>th</sup> grade Algebra I

Geometry is recommended for students anticipating a formal education beyond high school. It includes the study of both plane and solid figures. Emphasis is placed on logical and sequential development of geometric ideas.

**Some units covered in this course include: Basic vocabulary; Postulates; Proofs of theorems; Constructions; Parallel lines; Problem solving using ideas of congruency; Problem solving using ideas of similarity; A study of circles; A study of polygons; Areas-surface areas-volumes; and A study of solids.**





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**HONORS GEOMETRY (15324)** – Prerequisite: A 90% or better in Algebra I or II or 80% in Honors Algebra II.

This course will cover all of the topics in Geometry. The course will cover the topics in greater depth with more emphasis on proofs, applications, using technology and real life. Geometry is recommended for students anticipating a formal education beyond high school. It includes the study of both plane and solid figures.

**Some Units covered in this course include:** Geometry vocabulary; Proofs of Theorems; Parallel lines; Problem solving using ideas of similarity; a study of circles; Areas-surface areas-Volumes; Postulates; Constructions; Problem solving using ideas of congruency; a study of Polygons; and A study of solids.

**ALGEBRA II/TRIGONOMETRY (15338)** - Prerequisite: Geometry and Algebra IB and/or teacher recommendation.

**ACADEMIC ALGEBRA II/ TRIGONOMETRY (15307)** - Prerequisite: 80% in Academic Geometry and Academic Algebra IB, or Honors Algebra II, or teacher recommendation.

This course is designed for those students anticipating formal education beyond high school. Students contemplating a mathematics, science, or business-related field are urged to complete this course. The Math Department feels that a good background in algebra is essential for success in this course.

**Some units covered in this course include:** Pythagorean Theorem; The distance formula; The trigonometric functions; Radian and degree measure of angles; Laws of Sines and Cosines; Graphs of the trigonometric functions; Navigations; Linear Functions and Graphs; Trigonometric identities; Finding the line of best fit; Solving Right Triangles; Quadratic Functions and the Parabola; Amplitude, Period, Phase Shift; Relations and Functions; Values of Special Angles; Solving Oblique Triangles; and Exponents and Logarithms.

**HONORS TRIGONOMETRY (15339)** – Prerequisite: 90% in Academic Geometry or 80% in Honors Geometry and a90% in Algebra II or an 80% in Honors Algebra II.

This course will cover all of the topics in Trigonometry. Trigonometry is recommended for students anticipating a formal education beyond high school. It includes the study of trigonometry, functions, relations and graphs.

**Some Units covered in this course include:** Pythagorean Theorem; Trigonometric function; Laws of Sines and Cosines; The distance formula; Radian and degree measure of angles; Identities; Graphs of trig functions; Right Triangles; Amplitude, Period and Phase Shift; Exponential and Logarithmic functions; Linear functions; Quadratic functions; Relations; Complex numbers; Inverse trigonometric functions; and Graphs of exponential, logarithmic, linear, quadratic, relations and inverse trig functions.

**PRE-CALCULUS (15345)** - Prerequisite: Algebra II/Trigonometry or Academic Algebra II/Trig

Introduction to Calculus is recommended for students who plan to continue their education beyond high school in a math-related field, but who do not feel they are ready for the calculus course. Students who enroll in this course should be proficient in algebra, geometry, and trigonometry. Introduction to Calculus will review and expand upon some trigonometric and algebraic concepts, and also introduce new concepts including limits of functions and trigonometric functions, conic sections, maximum and minimum problems and related rates.

**Some units covered in this course include:** Relations and Functions; Composite and Inverse Functions; Symmetry; Families of Graphs; Families of Graphs; Tangent to a Curve; Synthetic Division; Natural Logarithms; Sequences and Series; Limits; Derivative of a function; Area under a curve; The area between curves; and Definite integrals.





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**CALCULUS (15346)** - Prerequisite: 85% in Algebra II/Trig. or Academic Algebra II/Trig, or 75% in Honors Trigonometry.

Calculus is designed for the student preparing for higher education and training in engineering, science, or other mathematics-related field. The Mathematical Association of America and the National Council of Teachers of Mathematics recommend that the calculus course offered in the 12<sup>th</sup> grade should be treated as a college-level course. These same organizations recommend that students who enroll in a calculus course in secondary school should have demonstrated mastery of algebra, geometry, trigonometry, and coordinate geometry.

**Some units covered in this course include: Conic Sections; Relative External; Functions; Graphs of Polynomial Functions; Limits; Continuity, concavity, and asymptotes; The derivative; The Mean Value Theorem; Velocity and Acceleration; Rolle's Theorem; Product, quotient and chain rules; Optimization problems; Implicit Differentiation; Integration; Derivatives of Trig Functions; The definite Integral; Related Rates; and Area under a curve.**

**LCCC CALCULUS AND ANALYTIC GEOMETRY I (15349)** - Please refer to the Dual Enrollment section of the Program of Studies on page 54. (Fall Semester)

**AP CALCULUS (15347)** - Prerequisite: 85% Calculus, 80% LCCC Calculus/Analytical Geometry, or teacher recommendation

This course is designed to prepare students for the AP Calculus AB Exam to be given in May. Students who have demonstrated mastery in algebra, geometry, trigonometry, and a previous Calculus course are eligible for this course. AP Calculus will follow the topics outline by the College Board, along with additional topics that the instructor deems fit to include. This course will move at a faster pace than the normal calculus course and require students to utilize and apply previously taught material. By doing this, the course will focus on AP Exam questions, material, and test preparation. Students enrolled in the course are **expected** to sit for the AP Calculus AB Exam in May.

**Some units covered include: functions, graphs, limits, derivatives, integrals, and applications of integrals**

**PROBABILITY AND STATISTICS (15336)** - Prerequisite: Honors Algebra II, Algebra IB, Academic Algebra IB

This course will offer to students the necessary information in order to work with introductory probability and statistics. Probability and statistics exist in almost every aspect of life and is easily applicable in areas such as sociology, business, ecology, and economics. This course will prepare students for the rigors of college mathematics.

**Some units covered in this course include: The Need for Statistics; Probability Concepts; Problem-Solving Methodology; Probability Distractions; Averages; Sampling Concepts; Dispersions; Estimating Parameters; Descriptive Statistics: and Testing Hypotheses.**

**SAT PREP MATH (15099)**: Prerequisite: Juniors

Meets every other day - .5 Credit

This course is aimed at high school juniors who are planning on taking the SAT exam. Students will learn about the structure and scoring of the SAT exam. Practice SAT exams will be frequently used to gain familiarity with both multiple choice and student-produced response questions. Critical math material needed for the exam will be reviewed by instructors.





## MUSIC

### Courses Offered

Concert Band

Concert Choir

Music Theory: Composition and Songwriting

### CONCERT BAND (15053/15054) - Prerequisite: None.

Concert Band is open to all students who enjoy music and who desire to learn music through performance. The band's study and practice includes performances such as a winter and a spring concert as well as playing for other school and civic functions. Students are also encouraged to participate in chorus, marching band, jazz band, pep band, Lehigh County Band, District X Band, and the school musical. Students are required to attend one lesson per week on a rotating schedule. As an elective, the course may be used to fulfill a portion of the humanities graduation requirement.

**Some units covered in this course include: Computer-assisted music theory; playing skills; a variety of music styles; Rhythmic reading and pitch reading; Good tone quality and intonations; Interpretation; Scales; and Small ensemble experience.**

### CONCERT CHOIR (15051/15052) - Prerequisite: None.

Concert Choir is designed for all students who have a love for singing. The Concert choir rehearses and performs a broad selection of excellent literature from Renaissance works through contemporary music. Music includes **everything** from folk songs to major Classical works to Broadway medleys. The student will learn about their voice and the techniques that will enable them to read music and become a stronger singer. Rehearsals take the form of the full-choir, small group sessions, individual lessons, evening dress rehearsals, and public performances. The choir performs at least two major concerts, one in December and one in May, as well as scheduled performances throughout the community. Students are encouraged to participate in Concert Band, Marching Band, and the all-District Musical, Lehigh County Chorus, and District 10 Choir.

**Some units covered in this course include: Physical Vocalization Skills; Music Literacy; Sight Reading; Tone Quality and Choral Blend; and Diction.**

### MUSIC THEORY: Composition and Songwriting (15057) - Prerequisite: None

Have you ever wanted to learn to write a song? This course is designed as a beginning music theory course for those interested in learning strategies for writing music. You do not have to have prior knowledge of music theory to be successful in the class. Students will focus on basic music concepts and apply them to solo and group compositions with the goal of advancing their songwriting abilities.

Music technology will be used to aid in learning and for compositional purposes. For the final project, students will be to compose a solo song which will be shared with classmates. Students who play instruments will be encouraged to bring them to aid in composition and performances, but the ability to play an instrument is not required.





## SCIENCE

### Courses Offered

#### 9<sup>th</sup> Grade: Physical Sciences

- Integrated Science
- Academic Integrated Science
- Honors Integrated Science

#### 10<sup>th</sup> grade: Life Sciences

- Ecology & Cell Processes/Biology I (full year)
- Academic Ecology & Cell Processes/Academic Biology (full year)
- Honors Ecology & Cell Processes/Honors Biology I (full year)

#### Electives within Life Science

- Anatomy
- Advanced Placement (AP) Biology

#### Chemistry

- Fundamentals of Chemistry
- Chemistry I
- Honors Chemistry I
- Honors Chemistry II
- Advanced Chemistry

#### Physics

- Physics I
- Honors Physics I
- Honors Physics II

**INTEGRATED SCIENCE (15416)**- Prerequisite: None

**ACADEMIC INTEGRATED SCIENCE (15418)**

This course is intended for those students who plan on pursuing the Traditional Academic Pathway in high school. There is a strong emphasis on using mathematical formulas and concepts as they relate to the physical sciences. **Some units covered in this course include: Physical science basics; using thermal energy; Moving objects; Machines; Acceleration and momentum; The Nature of Matter; and Energy.**

**HONORS INTEGRATED SCIENCE (15420)** – Prerequisite: 90% or better average in 8<sup>th</sup> grade science and 85% or better average in Algebra I and a completed application.

Honors Integrated Science is designed for the ninth grade student with **exceptional background and aptitude in science.** Academically talented students who desire to challenge themselves or are planning to pursue a science related career are encouraged to choose this course. A strong emphasis is placed on the theoretical basis and use of mathematics to explain various laws and theories that relate to the physical science. Projects and laboratory exercises in this course require skills of independent goal setting and self-motivation. **Some units covered in this course include: Physical Science Basics; Unit Conversions; Energy; Inertia; Velocity and Acceleration; Momentum; Forces; Work; Power; Nature of Matter; and Mechanical Advantage and Efficiency of Machines.**





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**ECOLOGY & CELL PROCESSES (15423)**-Prerequisite: Successful completion of integrated science  
**ACADEMIC ECOLOGY & CELL PROCESSES (15426)** Prerequisite:80% or higher in Integrated Science

**HONORS ECOLOGY & CELL PROCESSES (15422)**- Prerequisite: Completing of honors application and 90% or higher in Integrated Science or 80% in Honors Integrated Science

Meets Daily- Only runs Semester 1

This curriculum is the first part of a yearlong preparation for the state mandated Pennsylvania Biology Keystone Exam. All 10<sup>th</sup> grade students are required to take this course. The content of this course corresponds to the state anchors for Biology. A semester exam will be given at the end of Semester 1. Laboratory activities, computer activities and projects are an integral part of this learning experience. Students will be expected to be advanced in all study island topics covered under the Biology Keystone.

**Units covered include: science as inquiry; nature of science; scientific investigation; cell and cell processes; chemical basis of life; basic biological principles of the cell; homeostasis, cellular transport, bioenergetics and ecology.**

### **BIOLOGY I (15426)**

**ACADEMIC BIOLOGY I (15428)** Prerequisite: 80% or higher in Integrated Science

**HONORS BIOLOGY I (15429)** - Prerequisite: Completion of Honors Application and 90% or higher in Integrated Science or 80% in Honors Integrated Science.

Meets daily – Only runs Semester 2

This curriculum is the second part of a yearlong preparation for the state mandated Biology Keystone Exam. All 10<sup>th</sup> grade students are required to take this course. The content of this course corresponds to the state anchors for Biology. A semester exam will be given at the end of Semester 2. Computer activities, projects, and laboratory activities are an integral part of this learning experience. Students will be expected to be advanced in all study island topics covered under the Biology Keystone.

**Units covered include: cell growth and reproduction, genetics, theory of natural selection**

**ANATOMY (15432)** - Prerequisite: A grade of 80% or better in Ecology/Cell Processes and Biology I.

Meets daily – 1 Credit

This course is designed for students planning to pursue a health or science related field. Students need to be independently motivated, have strong study skills and well-developed work ethics. Topics to be covered include an orientation to the human body and the structure and function of the body systems. Dissection and lab work are integral components of this course.

**Units covered in this course are:** An Introduction to Anatomy and Physiology, The Tissue level of Organization (Histology),The Integumentary System and Function, Skeletal System and Function, Muscular System and Function, Nervous System and Function, Endocrine System and Function, Cardiovascular System and Function, Lymphatic System and Function, Respiratory System and Function, Digestive System and Function, Urinary System and Function, Reproductive System and Function







**ADVANCED PLACEMENT (AP) BIOLOGY 15433** - Prerequisite: Completion of AP Application plus 90% or better in Ecology/Cell Processes, Biology I and Chemistry I or science department recommendation.

This is a freshman-level college course involving the life sciences for students who have strong science backgrounds and desire to have advanced college placement/credit or for students planning to major in biology-related curricula. Successful completion of this course may result in the granting of college credit and possibly advanced placement to the student who scores well in the AP exam. Please see the AP Biology instructor for a detailed course description and appropriate consultation prior to finalizing course selections. **Some units covered in this course include: Molecules and cells (structure and function); Genetics and evolution (molecular and Mendelian genetics, heredity, and evolution); Organisms and populations; and Energy in Living Systems (Thermodynamics, enzymes, respiration, and photosynthesis).**

**FUNDAMENTALS OF CHEMISTRY (15438)**: Prerequisite: Successful completion of Integrated Science

This course is recommended for student with a limited background in science and math. After covering the basic chemical principles and mastering basic math skills, students will apply the scientific method and chemical principles to explore matter and energy. This course is not designed to be a preparatory course for other high school chemistry courses.

**Some units covered in this course include: elements, compounds and mixtures, metric system, measurements and solving problems, atomic structure, chemical bonding, periodic law, equations, chemical formulas, and elementary Stoichiometry. Student should have a scientific calculator as it will be needed to complete assignments in this course.**

**CHEMISTRY I (15439)** - Prerequisite: Successful completion of the academic or honors freshman year science course. 80% or better in Algebra IB, 75% in Honors Algebra II

This course is recommended for academically-oriented students. The student MUST demonstrate adequate problem-solving skills throughout the program. The course stresses the more technical, mathematical approach to the mastery of chemical principles and concepts. The course includes the study of atomic structure, energy, common elements, compounds and mixtures; periodic arrangement of elements and its use in predicting chemical behavior, chemical reactions, equations, Stoichiometry, and some chemical bonding. **Some units covered in this course include: Elements, Compounds, and Mixtures; Metric System; Measurements and Solving Problems; Atomic Structure; Quantum View of the Atom; Periodic Law; Chemical Bonding; Chemical Formulas; Equations; and Stoichiometry. Students should have a scientific calculator and a bound composition book as it will be needed to complete assignments in this course.**

**HONORS CHEMISTRY I (15440)** - Prerequisite: Completed Honors Chemistry I Application and completion Academic Algebra IB with a grade of 85% or higher or Honors Algebra II with a grade of 80% or higher. Successful completion of honors integrated science freshman year.

This course is designed for the student with exceptional background and aptitude in science. It includes an in-depth study of chemical concepts. Emphasis is on developing higher level thinking skills. This course will involve detailed laboratory reporting and analysis. Collection of classroom data is an integral part of this course.

**Some units covered in this course include: Elements, Compounds and Mixtures; Metric System; Measurements and Solving Problems; Atomic Structure; Quantum View of the Atom; Periodic law; Chemical Bonding; Chemical Formulas; Equations; Stoichiometry; and Gas Laws. Students should have a scientific calculator and a bound composition book as it will be needed to complete assignments in this course.**





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**HONORS CHEMISTRY II (15442)**- Prerequisite: Completed Honors Chemistry II Application and a minimum 80% in Chemistry I or 70% in Honors Chemistry I.

Chemistry II provides a detailed look at more involved areas of chemistry. This is a more involved laboratory-oriented course which will include detailed laboratory reporting. This course should prove of value for the student planning to enter higher education in the "Physical Science" areas and advanced professions in the "Life-Sciences." This course is designed for the student with exceptional background and aptitude in science. Emphasis is on developing higher level thinking skills. **Some units covered in this course include: Review of Chemistry I concepts; Kinetic Theory of solids, liquids and gases; The Solubility Product Principle; Thermochemistry; Ionic Equilibrium of Weak Electrolytes; Electrochemistry and Redox Reactions; Acids, Bases, and Salts; and Chemical Kinetics and Chemical Equilibrium. Students should have a scientific calculator and a bound composition book as it will be needed to complete assignments in this course.**

**ADVANCED CHEMISTRY (15443)**- Prerequisite: Completion of Application and successful completion of Honors Chemistry I and Honors Chemistry II. Algebra II/Trigonometry is highly recommended before taking this course.

This course is equal to a first year college course. It differs from the usual secondary course with respect to the number of topics studied, rate the material will be covered, depth of study, emphasis on calculations, amount of homework and type and variety of lab work completed by the student. Lab work will include the use of sensitive balances, spectrophotometers, and other analytical equipment. Unknowns will be identified through analytical and qualitative chemistry. Each lab report will include a sophisticated analysis of the experiment. Students can expect an hour or more of homework per night. With our block scheduling it will not be unusual to cover a chapter per day or two; students will be expected to have a strong individual work ethic. The instructor will be here, as your mentor and coach, but you will need to accept a strong commitment for your own learning. Remember this is a college course. **Some units covered in this course include: Stoichiometry; Wave functions; Precipitation and Oxidation; Molecular shape; Gas Laws; Rates of Reaction; Thermodynamics; and Equilibrium reactions. Students should have a scientific calculator and a bound composition book as it will be needed to complete assignments in this course.**

**PHYSICS I (15448)** - Prerequisite: Successful completion of the academic or honors freshman year science and trigonometry. 80% or better in Algebra II, 75% in Honors Algebra II

This course is recommended for academic students preparing for college. Physics is a course which emphasizes the qualitative study of the relationship between matter and energy. Students will develop logic and reasoning skill while studying this relationship through mathematical modeling, the scientific process and laboratory experiments.

**Units covered: mechanics, thermodynamics and electricity**

**HONORS PHYSICS I (15447)** – Prerequisite: Completion of trigonometry with a grade of 85% or higher. If a student has not taken trigonometry the student must have earned a 90% or higher in Algebra II.

This course is designed for students with an exceptional mathematical and scientific background that are preparing for science oriented careers. Physics is a course which emphasizes the qualitative study of the relationship between matter and energy. Other aspects include acquiring a vocabulary, transposing theoretical mathematics to application, recognizing the intuitive aspects of physical principles, and acquiring an appreciation of the scientific process. Laboratory experiments will be used throughout the course to reinforce the above aspects.

**Units covered: mechanics, thermodynamics and electricity**





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**HONORS PHYSICS II (15449)** -Prerequisite: Physics I with an average of 80% or greater and completion of an application or Honors Physics I with a 70% or greater

This course is a continuation of Physics I and is highly recommended for students who plan to take Physics in college. **Units covered: circular and rotational motion, light and optics, and quantum mechanics.**





## SOCIAL STUDIES

### Core Courses Offered

United States History II  
Honors United States History II  
United States History III  
Honors United States History III  
Civics: Government and Economics  
Honors Civics: Government and Economics  
World History  
Honors World History  
AP US History  
AP European History

### Electives Offered

Psychology  
Sociology  
Introduction to Economics  
Second World War  
Honors Psychology (**PITT credit option**)

### UNITED STATES HISTORY II (15216) - Prerequisite: Required for freshman students

United States History is the study of the social, economic, and political development of the United States and its people from the Progressive Era to the end of World War II. Through the chronological study of American history and culture, the common ideals and values that give meaning to our national character can be appreciated. The evolution of the American people, their beliefs, and concern for individual human dignity and rights will be given emphasis so as to provide a historical perspective for future decisions.

### HONORS UNITED STATES HISTORY II – Prerequisite: Completed Honors Application and a minimum of a 90% in previous social studies courses and 85% in English 8.

Honors United States History II is a fast-paced, in-depth survey course that will give the student a thorough understanding of the economic, political, and social development of the United States and its people from the end of the Reconstruction era to the conclusion of World War II. Through the chronological study of American history and culture, the common ideals and values that give meaning to our national character can be appreciated. The evolution of the American people, their beliefs, and concern for individual human dignity and rights will be given emphasis to provide a historical perspective for future decisions. This course is largely class discussion and lecture format. The use of primary source readings and other secondary essays will complement the main text. **This course will introduce the student to writing in a social studies course.**

### UNITED STATES HISTORY III (15226) - Prerequisite: Required for sophomore students

United States History III is the study of the social, economic, and political development of the United States and its people from the end of World War II to the historic election of Donald Trump as president. Through the chronological study of American history and culture, the common ideals and values that give meaning to our national character can be appreciated. The evolution of the American people, their beliefs, and concern for individual human dignity and rights will be given emphasis so as to provide a historical perspective for future decisions.





**HONORS UNITED STATES HISTORY III (15228)** - Prerequisite: Completed Honors Application and an average of 90% in previous social studies courses.

This challenging course, designed for the student with an exceptional background and aptitude in American History, is especially recommended for those students who are planning to major in History in college. This college preparatory course provides an in-depth examination of American History from the end of World War II to the historic election of Donald Trump as president. The use of primary sources and other collateral readings will be emphasized.

**CIVICS: GOVERNMENT AND ECONOMICS (15246)**: Prerequisite: A non-freshman course

Civics: Government and Economics is a survey course that will give the student a basic understanding of the functions and the services of democratic and economic systems. To facilitate such understanding, we will engage in a topical study of our economy and our government. First, we will define the meaning of American citizenship. Second, we will examine how our democratic system developed. Third, we will investigate the specific rights guaranteed to each citizen by our Constitution. Fourth, we will explain the election process and the party system. For the economics portion of the semester, we will examine our economy. The course will examine the basics of our economic system. Additionally, we will examine the role of money and banking in our American society. If time permits, the course will investigate the criminal and juvenile justice systems. **This course is a graduation requirement of all students.**

**HONORS CIVICS: GOVERNMENT AND ECONOMICS (15250)** – Prerequisite: Completed Honors Application and 90% in high school social studies courses (85% in weighted course)

Honors Civics: Government and Economics is a fast-paced, in-depth survey course that will give the student a thorough understanding of the functions and the services of democratic and economic systems. This course is largely class discussion and lecture format. To facilitate such understanding, we will engage in a topical study of our economy and our government. First, we will define the meaning of American citizenship. Second, we will examine how our democratic system developed. Third, we will investigate the specific rights guaranteed to each citizen by our Constitution. Fourth, we will explain the election process and the party system. For the economics portion of the semester, we will examine our economy. The course will examine the basics of our economic system. Additionally, we will examine the role of money and banking in our American society. If time permits, the course will investigate the criminal and juvenile justice systems. **This is a writing intensive course.**

**WORLD HISTORY (15236)** – Prerequisite: US History II and US History III

World History is a comprehensive study of the culture, geography, and lasting effects of historical events on our world today. As a survey course, it will focus on four major eras in world history beginning with the Renaissance and ending in the modern era following the events of World War II. The geography of a nation can often determine the course of its history and the evolution of the culture of its people throughout time. Students will be able to clearly identify historical events which shaped the world they live in today, on a local and global scale. Through the chronological study of trade and interactions between groups, students will observe the global influence on our values, beliefs and rights as American citizens. The class will focus greatly on both lecture as well as in-depth class discussion. Students will be encouraged to discover for themselves the parallels between their lives and the lives of important figures throughout time.

**\*For Juniors and Seniors only. Students must have taken US History II and III prior to this class.**





**HONORS WORLD HISTORY (15239)**-Prerequisite: 90% or above in US History II, III, and Civics:Government or an 85% in Honors US History II, III and Honors Civics: Government and completed application

Honors World History is a challenging, comprehensive study of the culture, geography, and lasting effects of historical events on our world today. As a survey course, it will focus on broad overarching topics throughout world history. It is based upon on four major eras in world history beginning with the Age of Exploration and ending in the modern era following the events of World War II. The geography of a nation can often

determine the course of its history and the evolution of the culture of its people throughout time. Students will have the opportunity to analyze world events by focusing on causality and global consequences. Students will be able to understand the value of diplomacy among nations and endeavor to predict possible outcomes of diplomatic action based upon cultural, ethnic, and religious divides. Through the chronological study of trade and interactions between groups, students will observe the global influence on our values, beliefs and rights as American citizens. The class will focus greatly on both lecture as well as in-depth class discussion. Students will be encouraged to discover for themselves the parallels between their lives and the lives of important figures throughout time.

**ADVANCED PLACEMENT UNITED STATES HISTORY (15229)**- Prerequisites: Students should be able to read a college-level textbook and write grammatically correct, complete sentences; Completed application; 90% average in academic social studies classes or an 85% average in previous honors social studies classes.

The College Board's Advanced Placement Program (AP) enables students to pursue college level studies while still in high school.

AP US History focuses on developing students' understanding of American History from approximately 1491 to the present. The course has students investigate the content of United States history for significant events, individuals, developments, and processes in nine historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides seven themes (American and national identity; migration and settlement; politics and power; work, exchange, and technology; America in the world; geography and the environment; and culture and society) that students explore throughout the course in order to make connections among historical developments in different times and places.

AP United States History concludes with a college-level assessment developed and scored by college and university faculty as well as experienced AP teachers. AP Exams are an essential part of the AP experience, enabling students to demonstrate their mastery of college-level coursework. Most four-year colleges and universities in the US and universities in more than 60 countries recognize AP in the admission process and grant students credit, placement, or both on the basis of successful AP Exam Scores.

AP US History is designed to be the equivalent of a two-semester introductory college or university course.





**ADVANCED PLACEMENT EUROPEAN HISTORY (15240)**- Prerequisite: Students should be able to read a college-level textbook and write grammatically correct, complete sentences; Completed application; 90% average in academic social studies classes or an 85% average in previous honors social studies classes.

AP European History focuses on developing students' understanding of European history from approximately 1450 to the present. In this course, students will investigate the content of European history for significant events, individuals, developments, and processes in four historical periods, and develop and use the same thinking skills and methods (analyzing primary and secondary sources, making historical comparisons, chronological reasoning, and argumentation) employed by historians when they study the past. The course also provides five themes (interaction of Europe and the world; poverty and prosperity; objective knowledge and subjective visions; states and other institutions or power; and individual and society) that students explore throughout the course in order to make connections among historical developments in different times and places. This will be a challenging, college level course, culminating in the AP European History exam. Students interested in the course must be able to read and interpret a college-level textbook and possess the skills necessary to write according to academic standards. European History has similar prerequisites to Honors World History and counts towards students' world history graduation requirement. United States History II and III are prerequisites.

**HONORS PSYCHOLOGY (15254)**- Prerequisite: 85% or higher in previous social studies class

Meets daily- 1 Credit, with optional enrollment for PITT Dual Enrollment credit

Honors Psychology will focus on the scientific study of the behavior and mental processes of human beings. You will learn psychological facts, principles and phenomena within the various fields of Psychology. This course may also be taken for college credit through **The University of Pittsburgh**.

- Students will think critically about the world of Psychology and their relationship to it.
- Students will learn about Psychologists, their experiments and theories, over the past century.
- Students will assess differing theories of Psychologists such as Psychoanalytic, Behavioral, Cognitive, Humanistic, Biological and they will explore socio-cultural perspectives.
- Students will demonstrate an understanding of how Psychologists think and the ethical ways in which they test their hypotheses.
- Students will be able to relate Psychological theories to current events, think critically and draw their own conclusions

**PSYCHOLOGY** - Prerequisite: Sophomore, Junior, Senior

Psychology is defined as the scientific study of behavior and mental processes. This Psychology course is designed to introduce students to major theories and concepts associated with the Introduction to Psychology. Key concepts such as major psychological schools, theorists, child and adolescent psychology will be identified. Students will also analyze psychological disorders as well as methods of treatment. Students will be given a broad overview of major terms associated with Psychology.

**SOCIOLOGY (15248)** - Prerequisite: Junior or senior only.

Sociology is defined as the scientific study of groups of people. This Sociology course is designed to introduce students to major theories and concepts associated with the Introduction to Sociology. Key concepts such as the history of sociology, social structure, adolescence, adulthood, crime and deviance, and class systems will be identified. Students will gain an understanding of how the individual functions within different social settings. Students will be given a broad overview of major terms associated with Sociology.





### **INTRODUCTION TO ECONOMICS (15252)** - Prerequisite: Successful completion of Civics: Government & Economics

Introduction to Economics is an academically challenging elective that is recommended for any student planning to attend a four-year college or university or any student planning a post-high school career in economics or business. This course, which meets state and national standards, focuses on the study of economic behavior and decisions in a nation's whole economy. Students will explore the importance of money, banking, and finance in our economic system, as well as topics such as economic growth, unemployment, inflation, taxes, government spending, the national debt, the Federal Reserve System, international trade, and globalization.

### **SECOND WORLD WAR (15230)** - Prerequisite: Sophomore, junior or senior students.

This elective allows juniors or seniors to investigate and understand the causes, events, and effects of World War II. This epochal struggle transformed the world; its aftershocks continue after the passage of over half a century. The war will be studied from an American perspective, but will examine issues such as the rise of Fascism in Italy and Germany, the rise of militarism in Japan, the worldwide economic depression of the 1930's, the failure of collective security among the democratic powers in Europe, and the Holocaust. Although military strategy constitutes a key component of this course, other aspects will be investigated, including political, economic, and social issues. A special point of focus will be the American "home front," which underwent a significant transformation. A research paper, an interview and a book report are required. Selected documentaries will supplement the textbook and other collateral readings. This course will require a considerable amount of reading; it is important that the student have a good reading background and interest in the subject.







## TECHNOLOGY EDUCATION

### **Courses Offered (listed by level of difficulty)**

Web Design  
Video Production  
Television Studio  
Computer-Aided Drafting Technology I (CAD I)  
Principles of Technology I  
Computer-Aided Drafting Technology II (CAD II)  
Principles of Technology II  
Video Production II

### **WEB DESIGN (15378)** - Prerequisite: None

Throughout this course, students will be introduced to the key principles and technologies of effective and attractive web design, focusing on both the aesthetic appearance of the site's imagery as well as the basic programming languages that enable the site's functionality.

**The objective of this class is to produce a website that demonstrates thoughtful planning through logical content organization and consideration for a target audience, attractive site design through artistic principles and a working command of graphic software, and the utilization and implementation of the HTML programming language to create a functioning website.**

### **VIDEO PRODUCTION (15377)** - Prerequisite: None

Throughout the video production course, students will explore the history of video technology and concepts associated with visual storytelling, as well as gaining experience with recording equipment and professional-grade non-linear editing and motion-graphics software to create their own video presentations.

### **TELEVISION STUDIO**- Prerequisite: 85% or higher in Video Production, or completed application

The Television Studio curriculum will expose students to the challenges of producing a live daily television broadcast. Students will gain experience with broadcasting equipment including cameras, microphones, video switchers, audio boards, teleprompters, and studio lighting. Students will also become familiar with professional editing and graphics software, such as Adobe Photoshop, Adobe Premiere, Adobe After Effects, Adobe Audition, Pinnacle Studio, MirrorScript Pro, and Microsoft PowerPoint. Additionally, students will gain valuable journalism experience by writing and conducting school-related news reports, interviews, sports coverage, and other student-interest segments. Students will write, plan, budget, direct, film, edit, and create graphics for their own news segments, a multi-step process which allows for interdisciplinary connections to nearly all Common Core subject areas.





**COMPUTER-AIDED DRAFTING TECHNOLOGY I (CAD I) (15043)** – Due to enrollment limitations, upperclassmen are given priority.

Students will learn to use drafting and design computer software programs and apply them to a variety of drawing and design situations. After a computer hardware/software orientation, students will learn to read and draw several types of technical drawings. This information will then be applied in the design process as students work individually on a number of architectural and mechanical design activities. Students will play the role of professional designers and planners who create design solutions to the given problems. **Some units covered in this course include: Use of the computer in drawing; Use of printers and plotters; Use Auto Cad Programs for design, drawing, and problem-solving.**

**PRINCIPLES OF TECHNOLOGY I (15041)** – Due to enrollment limitations, upperclassmen are given priority.

Students will be introduced to advanced problem solving methods. The focus of the course is to develop a means of designing solutions to technical problems through brainstorming, analysis, prediction, construct testing and test result evaluation. Students will be presented with hypothetical or actual problems and proceed in small groups or individually, to create solutions. Presentation and analysis are culminating activities. **Some units covered in this course include: Communications; Transportation; Power Technology; Construction; Research Applications; Word Processing; and C. A. D.**

**COMPUTER-AIDED DRAFTING TECHNOLOGY II (CAD II) (15044)**-Prerequisite: CAD I. Due to enrollment limitations, upper classmen are given priority.

Students will continue their computer-aided drafting experience. Course will allow students to work at their own individual level with the Auto-Cad Program. Advanced level will include Auto Cad 3D, a 3-D drawing program and architectural drafting is available. Design and critical analysis is highlighted. **Some units covered in this course include: Advanced Drawing Applications; Architectural Drawing; and 3-D Solid Modeling.**

**PRINCIPLES OF TECHNOLOGY II (15042)**-Prerequisite: Principles of Technology I. Due to enrollment limitations, upper classmen are given priority.

Principles of Technology II is the second course in a sequential series in the technology curriculum. Students will be introduced to STEM (Science, Technology, Engineering, and Math) while working on a project as a group or individually. A number of STEM activities will be applied to help students as they design and build a fully working electric guitar. This exciting project can be done as a group, where a guitar will be built for a school organization or local business or individually, where the student will purchase the kit and build the guitar. No guitar playing experience is necessary for this class, but certainly is welcomed. **Some units covered include: woodworking, engineering, 3D design (solid works), prototyping, electronics, guitar set up, science and mathematics that apply to guitar use and design, research applications, word processing.**

**\*\*\*If a student would like to build his or her own guitar, there will be a cost involved. This is not a requirement and arrangements will be made for a student to build a guitar for a group or organization, at no cost to them.\*\*\***

**VIDEO PRODUCTION II (15089)**- Prerequisite: 85% or higher in Video Production

The Video Production II curriculum will build upon the foundation established in Video Production, delving deeper into production (filming) processes and post-production (editing) concepts using Adobe Premiere Pro. Students will also be introduced to motion, graphics, animation, and special effects through the use of Adobe After Effects. In addition, the school's Television Studio, teleprompters, and green-screen will be a valuable resource as students expand their experience with the various facets of Video Production.

Video Production II will focus on advanced aspects of the production process and will require a more independent and self-disciplined approach on behalf of the students. Over the course of the semester, students will produce multiple projects that incorporate advanced filming techniques, editing concepts, and visual effects processes, each of which allow for interdisciplinary connections to nearly all PA Core subject areas.





## WELLNESS AND FITNESS

**Wellness/Fitness I:** All Freshmen will be scheduled this course.

**Wellness/Fitness II:** All Sophomores will be scheduled this course.

**Wellness/Fitness III:** All Juniors will be scheduled this course.

Wellness and fitness are essential for the healthy development of each student and our community as a whole. The well-being of our students will largely determine the quality of life they will have throughout their lifetime. To thrive in our ever-changing world, our students will acquire and use knowledge, skills and habits necessary to promote individual, family, and community wellness and fitness. During our students' three year participation in wellness and fitness, they will focus on completing outcomes in concepts of health, healthful living, safety and injury prevention, physical activity, and concepts, principles, and strategies of movement.

**Units in these courses include:** CPR/AED/First Aid, Nutrition, Drugs and Addiction, Human Growth and Development, Strength Training, Lifetime Fitness, Fitness Testing, and Sports related physical activity including skill development and game strategy.

**IMPORTANT:** If a student successfully completes Wellness/Fitness I, II, and III they will not take a gym course during their senior year.





## DUAL ENROLLMENT DESCRIPTIONS

**LCCC RESEARCH & COMPOSITION (15150)**- Prerequisite: Students will have passed the appropriate level III English course (Honors, Academic, or Integrated) and met the appropriate level on LCCC's placement exam to register for this course.

Meets 2x weekly – 1 English Credit - 3.0 College Credits

Cost: TBA + textbooks

In College English I, students write essays, develop a research paper, and master library skills. Students strive for sound logic, effective use of details, appropriate diction, and correct grammar and mechanics. Students study models of good writing, which include student essays as well as professionally written essays. A minimum of 12 students must be registered for this course to be offered.

**\*\*LCCC CALCULUS AND ANALYTIC GEOMETRY I (15349)**- Prerequisite: Students will have passed Trigonometry (Honors or Academic) and met the appropriate prerequisites required by LCCC to register for this course.

Meets daily – 1 Math Credit - 3.0 College Credits

Cost: TBA

This course is primarily intended for students majoring in science, mathematics, or engineering. Topics include: data analysis, limits, differentiation, with applications (optimization and related rates), and integration. A graphing calculator is required

**\*\*LCCC PAINTING I (15075)**– Prerequisite: Earned grade average of 75% or higher in Northern Lehigh's Painting I and/or teacher recommendation.

Meets daily – 1 Credit - 3.0 College Credits

Cost: TBA

This course includes basic instruction in form, color, value, composition, and historical material. The media will include oil and acrylic. Students are encouraged to create works driven by personal expression.

**LCCC FUNDAMENTALS OF EARLY CHILDHOOD EDUCATION (15030)** - Prerequisite: Students will have taken Northern Lehigh's Child Development course and received a grade of 80% or higher and/or recommendation of teacher.

Meets daily – 1 High School Credit - 3.0 College Credits

Cost: TBA

This course offers an analysis of Early Childhood Education through historical, current, and future perspectives. Discussions of current teaching trends and best practices are included. Topics covered include major theorists, types of programs, environments, and cultural diversity.





**IMPORTANT INFORMATION REGARDING DUAL ENROLLMENT COURSES:**

1. Any dual enrollment course that is preceded with (\*\*) **WILL BE** calculated in the student's grade point average (GPA) as an honor's course and class rank. Any dual enrollment course that **DOES NOT** have asterisks **WILL NOT** be calculated in the student's grade point average and class rank.
2. Students interested in enrolling in these courses must follow all guidelines established between Northern Lehigh and LCCC. These guidelines can be found on the Northern Lehigh High School Guidance page at [www.nlsd.org/srhnlsd/](http://www.nlsd.org/srhnlsd/)
3. Students will be given instructions on how to enroll in these courses through the guidance department.
4. Course descriptions can be found at [www.lccc.edu/academics/course-search](http://www.lccc.edu/academics/course-search)
5. LCCC College Research and Composition be offered Block 4 one semester and Block 1 the other semester. Class will run two days a week, which will be determined prior to each semester and students will be notified. **No classes will be held on Friday. If a student does not have a class scheduled during one of these days during the time that the course is offered, they will be required to leave campus. This will result in students finding their own method of transportation.**

**\*\*Note:** It is highly recommended that a student not having transportation to accommodate this change should refrain from taking these dual enrollment courses.





## NCAA APPROVED COURSES

### ENGLISH

15116 Academic English I  
15118 Honors English I  
15126 Academic English II  
15128 Honors English II  
15136 Academic English III  
15128 Honors English III  
15146 Academic English IV  
15149 AP English Literature & Composition  
15153 AP English Language & Composition  
15168 Public Speaking  
15147 Creative Writing

### SOCIAL STUDIES

15216 US History II  
15218 Honors US History II  
15226 US History III  
15228 Honors US History III  
15236 World History  
15239 Honors World History  
15230 The Second World War  
15237 Psychology  
15248 Sociology  
15252 Intro. To Economics  
15246 Civics: Govt & Econ  
15250 Honors Civics:Govt& Econ  
15254 Honors Psychology  
15229 AP US History  
15240 AP European History

### FOREIGN LANGUAGE

15516 Spanish I  
15526 Spanish II  
15536 Honors Spanish III  
15546 AP Spanish Language and Culture

### MATHEMATICS

15301 Academic Algebra IA  
15302 Academic Algebra IB  
15303 Academic Geometry  
15307 Academic Algebra II/Trig.  
15322 Honors Algebra II  
15324 Honors Geometry  
15339 Honors Trigonometry  
15336 Probability & Statistics  
15345 Intro Calculus  
15347 Calculus  
15348 AP Calculus

### SCIENCE

15420 Honors Integrated Science  
15422 Honors Ecology/Cell Processes  
15429 Honors Biology I  
15418 Academic Integrated Science  
15426 Academic Ecology/Cell Processes  
15428 Academic Biology I  
15432 Anatomy  
15433 AP Biology  
15439 Chemistry I  
15440 Honors Chemistry I  
15442 Honors Chemistry II  
15443 Advanced Chemistry  
15447 Honors Physics I  
15448 Physics I  
15449 Honors Physics II

### ELECTIVES

15041 Principles Technology I  
15042 Principles Technology II

