

# MT. LEBANON HIGH SCHOOL



## COURSE CATALOG

2023 - 2024



#### Compliance Statement

Mt. Lebanon School District does not discriminate on the basis of race, age, color, religion, sex, national origin, ancestry, or handicap or disability in the administration of any of its educational programs, services or activities, or with respect to employment. The District adheres to the nondiscrimination provisions of Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, the Age Discrimination in Employment Act, The Pennsylvania Human Relations Act, and all other applicable federal, state and local laws, regulations and ordinances. Inquiries concerning Section 504 of the Rehabilitation Act should be directed to Director of Facilities, Mt. Lebanon School District, 7 Horsman Drive, Pittsburgh PA 15228, 412-3442090. Inquiries concerning Title IX and the ADA should be directed to Director of Human Resources, Mt. Lebanon School District, 7 Horsman Drive, Pittsburgh, PA 15228, 412-3442080.

# **Mt. Lebanon High School**

**155 Cochran Road  
Pittsburgh, Pennsylvania 15228  
412-344-2000**

## **Course Catalog 2023- 2024 School Year**

**Published by Mt. Lebanon School District**

The Mt. Lebanon High School Course Catalog is available

On-line by visiting the school website at:

<http://www.mtlsd.org>

**Updated December 2022**

**Mission Statement:**

**To Provide the Best Education Possible for Each  
and Every Student.**

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**Although school personnel will make every effort to communicate with students and families,  
it is the student's responsibility to ensure that requirements for graduation are met.**

## TABLE OF CONTENTS

### REQUIREMENTS AND GUIDELINES

COUNSELORS, DEPARTMENT CHAIRS.....	5
SECTION I – GENERAL INFORMATION.....	7
SECTION II – ALTERNATIVE PROGRAMS.....	13
SECTION III – COURSES OF STUDY.....	15

### COURSES BY DEPARTMENT

ENGLISH.....	21
SOCIAL STUDIES.....	25
MATHEMATICS AND COMPUTER SCIENCE.....	28
SCIENCE.....	31
WORLD LANGUAGES.....	36
BUSINESS AND INFORMATION TECHNOLOGY.....	39
FAMILY AND CONSUMER SCIENCES.....	41
TECHNOLOGY EDUCATION.....	42
FINE ARTS.....	44
HEALTH AND PHYSICAL EDUCATION.....	49
PARKWAY WEST CAREER AND TECHNOLOGY CENTER.....	51
CCBC AVIATION PROGRAM.....	54
NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA).....	55
ONLINE COURSE SELECTION DIRECTIONS.....	56
PRINTED COPY COURSE SELECTION SHEETS.....	58
APPENDIX A.....	69

## SECTION I – GENERAL INFORMATION

### Purpose of the Course Catalog & Timelines

Although designed for student use in selecting courses for the following year, the *Course Catalog* also provides information for long range graduation planning. The *Course Catalog* is distributed in January (electronically and/or printed copy) to all students in Mt. Lebanon in grades 8 through 11. During the spring, school administrators use course selections, submitted by students in February, to plan the following year's master schedule and resultant staffing needs. Parents may override faculty recommendations for screened courses through March 10, 2023. Changes after this time frame will only be made on a space available basis.

**Teacher Requests** - The school is unable to honor parent and student requests for specific teachers.

### Schedule Changes - Adding & Dropping Courses

Students should select their courses with great care and the awareness that all schedule changes must meet the following rules:

- After March 10, 2023 all schedule change requests must be submitted to the Schedule Change Committee. Requests will be reviewed on a space available basis
- New courses may only be added in the first two (2) weeks of the semester in which they begin (Semester 1 for S1 and Full -Year courses, Semester 2 for S2 courses.)
- Students carrying five (5) full-time courses may not drop a course at any time unless they enroll in another course, limiting this option to the first two weeks of a semester.
- Students carrying six (6) full-time courses may apply to the Schedule Change Committee to withdraw from one course. Withdrawal is not guaranteed.
- Withdrawal during the first nine (9) weeks of the course results in a "W" grade on the transcript. Withdrawal during the second nine (9) weeks results in the failing grade of "E" on the transcript. Yearlong courses will have two separate semester grades to which the above rules will apply.
- If a student withdraws from a course because the level is determined to be inappropriate and enrolls in a different level of a similar course, this is considered a "change of level" rather than withdrawal. Level changes may be initiated by a student, parent or teacher and must be arranged through the school counselor and approved by the parent and department chair.
  - Students may not request a transfer from AP Human Geography to World Cultures or AP US History to academic US History, or vice versa after the first four (4) weeks of the first semester. At the end of the first semester, a student may request a transfer from AP Human Geography to World Cultures for the second semester or a student may request a transfer from AP US History to Academic US History for the second semester. Additionally students may not request to move from academic levels to AP levels after the first semester.
  - Students may not request a transfer from Honors Advanced Precalculus to Honors Precalculus, Honors Precalculus to Applications of Functions & Trigonometry, Applications of Functions & Trigonometry to College Preparatory Mathematics, AP (AB) or AB (BC) Calculus to Honors Business Calculus, Honors Business Calculus to Fundamentals of Calculus or from AP Statistics to academic Statistics or vice versa after the first four (4) weeks. If this level change is made within the accepted four week period, the student is required to make up all missed assignments and assessments for the new course.
  - Students may not request a transfer from Honors Chemistry to Chemistry, Honors Biology to Biology, AP Environmental Geoscience to Environmental Geoscience, Honors Physics to Physics, or from AP Physics 1 to Honors Physics or vice versa after the first four (4) weeks of the first semester. These courses do not follow the same curriculum and pacing. Students may request a transfer from Honors Chemistry to Chemistry, Honors Biology to Biology, AP Environmental Geoscience to Environmental Geoscience, or Honors Physics to Physics at the end of the first semester. Students may not request a transfer from AP Physics 1 to Honors Physics at the end of the first semester because the curriculum diverges too much by that point. Additionally, students may not request to move from Academic level courses to Honors or AP levels or from Honors to AP level courses after the first semester.
  - Students may not request a change from an honors level 4 World Language course to an academic level 4 World Language course after the first nine (9) weeks. Students may not request a change from an Advanced Placement World Language course to an honors level World Language course after the first nine (9) weeks.

### Commencement Participation

In order to participate in the commencement ceremony, a student must have fulfilled all academic requirements for graduation prior to the commencement ceremony. In addition, students must have met all outstanding delinquent obligations. Senior students who have not met graduation requirements on time may still earn the current year's diploma if they fulfill the requirements by October 1. Senior students who complete their graduation requirements after October 1 will only be eligible for the following year's diploma.

### Credits

Successful completion of one semester's course work equals 1 credit (5 or 6 class meetings per week). The 43.6 credits for graduation must be earned between grades 9 and 12. Physical Education and Dance courses earn .80 credits 2 days per week for a full year. All 4-day courses earn .80 credits per semester, and 3-day courses earn .60 credits.

## Graduation Requirements

<b>Total Credits</b>	43.6
<b>English</b> Students must take an English course each semester; one course must be a year-long American literature course.	8
<b>Mathematics</b> Computer science courses do not count for math credits.	6
<b>Science</b> Science credits must be distributed as follows: 2 credits–Physical Sciences; 2 credits–Life Sciences; 2 credits–Geosciences	6
<b>Social Studies</b> 1 credit – American Political & Economic Systems      2 credits – World Cultures or AP Human Geography 1 credit – History of Western Cultures                      2 credits – United States History	6
<b>Health &amp; Wellness</b> Students fulfill the district graduation project requirement through successful completion of a personal health project in this course. The purpose of the project, which may include research, writing or some other appropriate form of demonstration, is to assure that the student is able to apply, analyze, synthesize and evaluate information and communicate significant knowledge and understanding. Projects may be undertaken by individual students or groups of students.	1
<b>Physical Education</b> Courses are required for students in grades 9 and 10 and are elective for students in grades 11 and 12.	1.6
<b>Practical Arts</b> Course options listed in the course catalog.	1
<b>Arts and/or Humanities</b> Arts and Humanities include courses in Fine Arts, Technology Education, and Family & Consumer Science. In addition, humanities include the following courses: AP Human Geography (taken as an elective), AP European History, Anthropology, Comparative Religions, Honors European Literature, Honors International Relations, AP Psychology, Psychology, Introduction to Global Studies, (H) Contemporary Domestic Issues, Positive Psychology, and World Language courses beyond Level 2.	4
<b>General Electives</b> An elective is any course taken in any area of study beyond those specifically listed under minimum requirements.	10

An English course is required in a student's schedule each semester. All students complete year-long courses in English 9, English 10 and American Literature. Advanced Placement Language and Composition can serve as the Junior year English course. Seniors can select two semester courses from a list of several options or Advanced Placement Literature and Composition.

Physical Education or Dance is required for 9th and 10th grade students. Students are required to complete four semesters of physical education or dance prior to graduation with 0.4 credit given for a 2 day per week per semester physical education course. The net credit requirement is 1.6. PE Partners meets the requirement for 10th grade students.

Physical Education will be included in a student's GPA.

The Keystone Exams are end-of-course assessments designed to assess proficiency in the subject area. In order to be eligible for graduation, per Act 158, students must meet one of the pathways referenced on the following page, Keystone Exam Policy (page 9), and in Appendix A (page 69).



## KEYSTONE EXAM POLICY

The statewide graduation requirement outlined in Act 6 and Act 158 and delayed by Act 136 takes effect for the graduating class of 2023. Students are required to take the Keystone Exams for purposes of federal accountability. After the initial exam administration, students who do not pass the respective Keystone Exam (Algebra 1, Biology, or English Literature) will be provided with optional remediation. Additionally, students who do not pass an exam will take the respective exam one additional time, minimally. Act 158 of 2018 and delayed by Act 136 of 2020, then, provides a student in the graduation class of 2023 and thereafter alternative pathways to demonstrate readiness for postsecondary success. Appendix A (page 69) outlines the alternative pathways. Additional factors relating to the class of 2023 and thereafter include:

- Students who opt out of one or more Keystone Exams must still meet state and local graduation requirements.
- A student with a disability who satisfactorily completes a special education program developed by an individualized education program team under the Individuals with Disabilities Education Act and 22 Pa. Code Ch. 14 (relating to special education services and programs) that does not otherwise meet the requirements outlined herein in Appendix A (page 69) shall be granted and issued a regular high school diploma.
- The performance level demonstrated by a student on the associated Keystone Exam will not be included on a student's transcript.

### Course Levels

As a comprehensive high school, Mt. Lebanon offers a demanding college preparatory program supplemented with strong offerings in several elective areas. Three course levels - Academic, Honors and Advanced Placement - enable students to select courses consistent with their abilities and achievements.

Academic level courses are demanding college preparatory courses that require average to above-average analytical reading skills. Students can expect regular homework which reinforces concepts developed in class and some material which is challenging at high cognitive levels.

Honors courses are rigorous courses which demand a high level of analytical reading ability and often lead to Advanced Placement studies. Students are required to spend a significant amount of time outside of class on course work and may have summer assignments.

Advanced Placement courses are first year college level courses that follow the College Entrance Examination Board syllabus and prepare students for the AP examinations given in early May. Some colleges will grant credit for high scores on AP tests. AP courses are the most rigorous course offerings and require a significant amount of time outside of class on course work and may have summer assignments.

### Screened Courses

To enroll in Honors and Advanced Placement courses, a student must be recommended by a screening committee which considers: 1) criteria for the course, 2) the student's scholastic ability, 3) achievement and performance, 4) evidence of maturity, motivation, interest and industry, and 5) previous teachers' recommendations. Parents who wish to override a faculty screening recommendation must do so through completion of a Schedule Change Request form by March 10, 2023. This form may be obtained from the student's school counselor. Changes after this time frame will only be made on a space available basis.

### Quality Point Average (QPA) and Class Rank

Class rank has been eliminated from the high school transcript. Any student having an application on which it stipulates that class rank is required and will not be accepted without this information, should see their school counselor. The QPA is derived by dividing the total number of quality points earned by the total number of eligible credits taken at MLHS. Quality points are numerical values assigned to grades. QPA is computed on both a weighted and a non-weighted basis. Point values for weighted QPA are listed in the table below. Point values for non-weighted QPA are always the values listed in the Academic category, i.e., A = 4, B = 3, etc., regardless of the course level. Grades earned in pass/fail courses, independent study, and work study are not included in the computation of QPA.

Both the weighted and non-weighted QPA's will be printed on student transcripts. Non-weighted QPA is used for honor roll designation.

	AP Weighted Values	Honors Weighted Values	Academic Values
A	5.5	5	4
B	4.5	4	3
C	2	2	2
D	1	1	1
E	0	0	0

A value of .05 is added to the weighted QPA of a student during each semester they complete the full course load of 6 credits for grades at MLHS. A value of .01 is added to the weighted QPA each semester a student enrolls in and receives credit for Honors Advanced Precalculus.

**Grading System**

Grades are to reflect the student's average of achievement in a particular course. Behavior comments are recorded separately on the report card. Achievement points cannot be lowered as a means of punishment for behavior. As indicated in the Secondary Grading Practices, student grades will be assigned as follows:

90 - 100	A
80 - 89	B
70 - 79	C
60 - 69	D
59 or below	Failure

**Minimum Class Enrollment**

The administration reserves the right to cancel courses in which enrollment does not reach a minimum level, generally 20 students.

**Recommended Course Load**

Students are encouraged to schedule six (6) full credit courses per semester. For each semester in which students carry the course load of six (6) full credits completed for grades, they are rewarded with the addition of .05 quality points to their weighted Quality Point Average (QPA).

**Repeating Courses**

Generally, courses previously passed may not be repeated for additional credit. Exceptions to this rule apply to a limited number of courses, most of which are in the Fine Arts, Physical Education or Technology Education departments.

### Sample Schedule

Grade 9	Grade 10	Grade 11	Grade 12
English 9	English 10	One year-long American literature course	Two semester academic courses OR Two semester honor courses OR AP English 12: Literature and Composition
APES/HWC	World Cultures	US History	Elective (1 each sem.)
Geometry	Algebra 2	Functions or Precalculus	Statistics, Personal Finance, Business Math, or Calculus
Chemistry	Biology	Environmental Geoscience	Physics, AP Science, or Elective
French 2	French 3	French 4	(H) French 5 or AP French
		Health & Wellness (1 semester)	
Physical Education or Dance (both 2 days/week each semester.)	Physical Education or Dance (both 2 days/week each semester)		
Elective (1 each sem.)	Elective (1 each sem.)	Elective (1 semester)	Elective (1 each sem.)

## PRACTICAL ARTS COURSES

A student must take a one (1) semester Practical Arts course, which can be met through the courses identified herein. (Note: Technology Education would apply to the Arts/Humanities and Practical Arts categories.)

### BUSINESS AND INFORMATION TECHNOLOGY

COURSE #	COURSE TITLE
6093	Technology and Media Applications
6013	Web Page Design
6023	Web Page Design 2
6033	Honors Web Page Design 2

### COMPUTER SCIENCE

COURSE #	COURSE TITLE
3718	(H) Introduction to Computer Programming 1
3728	(H) Introduction to Computer Programming 2
3850	AP Computer Science A
3603	Honors Computational Mathematics

### MATHEMATICS

COURSE #	COURSE TITLE
3603	Honors Computational Mathematics

### TECHNOLOGY EDUCATION

COURSE #	COURSE TITLE
6611	CAD for Architecture 1
6612	(H) CAD for Architecture 2
6631	CAD for Engineering 1
6632	(H) CAD for Engineering 2
6651	CISCO HP IT Essentials 1
6662	Honors CISCO HP IT Essentials 2
6691	Introduction to Woodworking
6692	Advanced Woodworking
6741	Graphics Design 1
6742	(H) Graphics Design 2
6763	Robotics in Power Technologies
6653	Robotics in Power Technologies 2
6851	Applied Engineering 1
6862	Honors Applied Engineering

### MEDIA ARTS

COURSE #	COURSE TITLE
7743	Media Arts and Production 1
7760	Advanced Media Production (5 day)
7740	Advanced Media Production (4 day)
7803	Digital Filmmaking (5 day)
7813	Digital Filmmaking (4 day)

## SECTION II – ALTERNATIVE PROGRAMS

### **Alternative Education**

Students with severe attendance, behavior or academic concerns may be recommended for placement at a variety of alternative educational sites where they may earn credits towards graduation from Mt. Lebanon High School.

### **Auditing Courses**

Students may apply to audit courses when they wish to attend a course without receiving a grade or credit, if there are open seats in the class after all students taking the class for credit have been placed. To audit a course, a student must (1) be taking five courses for credit, (2) secure the teacher's permission, (3) declare his or her intention to audit prior to enrollment in the course, (4) complete the permission form available in the School Counseling Office and (5) attend the class regularly. If auditing a course, the student may not change to requesting credit. Students may not audit during a lunch period. Students may arrange to audit a course through their school counselor.

### **Credit Deficiencies**

Students may makeup credit deficiencies resulting from course failure by repeating the course, taking an approved correspondence course, an approved online course, or taking the course in an approved summer school program. Students may arrange credit recovery through their school counselor.

### **Driver's Education**

Students may earn credit on their transcript through the completion of the driver's education course in the Continuing Education Department. Information may be obtained on the high school website or by calling 412.344.2020.

### **Early Admission to College**

For the senior year, an exceptionally able student may attend an approved college on a full-time basis and earn credit toward graduation from Mt. Lebanon High School. The student must (1) request approval from their school counselor by completing the Application for Early Admission, available in the School Counseling Office, (2) be accepted on a full-time basis in a program granting college credit toward a degree, and (3) provide to Mt. Lebanon High School a college transcript to document successful completion of the first year of college. All Mt. Lebanon High School graduation requirements must be met before a Mt. Lebanon diploma can be issued. Students may also follow items 1 and 3 above for dual enrollment during the school day. The student is responsible for all costs of external courses provided by an approved college or dual enrollment program.

### **Early Graduation**

By scheduling carefully, students may be able to satisfy graduation requirements by the end of grade 11 or the end of the first semester of grade 12. Application for early graduation can be made through the School Counseling Office no later than the first month of the semester in which graduation is intended.

### **English as a Second Language (ESL)**

ESL instruction is available to students with limited proficiency in speaking, listening to, reading or writing English due to their status as immigrants, refugees, international students or American born children from non-English speaking homes. Upon enrollment, school counselors may refer students for an ESL evaluation and, if eligible, the student will be scheduled into the program. Most often, students receive elective credit for ESL courses and are also scheduled into English courses.

### **External Courses for Acceleration**

Students wishing to accelerate through the required sequence of courses at Mt. Lebanon High School may do so by completing one of the many college courses offered for high school students, primarily during the summer. The student must receive prior approval from the subject department chair. Credit toward graduation is not granted for completion of acceleration courses.

### **External Courses for Graduation Credit**

Students may earn a maximum of two (2) credits toward graduation through external courses while enrolled at Mt. Lebanon High School. The district is unlikely to approve external credit for those science courses which, when completed at the high school, include a sixth period laboratory experience. Students who take an external World Language course must pass a proficiency exam to enroll in the next level of the language. Grades earned through external courses are not computed in QPA. The student is responsible for all costs of external courses and providing the school counselor with an external transcript as verification of completion and for inclusion on the student's transcript.

Correspondence Courses: To earn external credit through correspondence courses, the student must obtain prior approval from their school counselor and the appropriate content area department chair. The correspondence course provider must be **accredited**.

Internet/Online Courses: To earn external credit through on-line courses, the student must obtain prior approval from their school counselor and the appropriate content area department chair. The online course provider must be **accredited**.

**Independent Study**

Independent study may be applied for by a 12<sup>th</sup> grade student as a sixth or seventh full-time course. Grades are issued and appear on the transcript but are NOT included in the QPA or for .05 add-on purposes. The student must design a plan of study on a topic that is an extension of, or an addition to, the regular curriculum, secure a Mt. Lebanon High School faculty advisor, and submit an application, available in the School Counseling Office, prior to the semester in which the independent study is initiated. One (1) credit may be earned for each semester of independent study. Final approval for independent study is at the discretion of the content area department chair.

**Parkway West Career and Technology Center**

Students wishing to participate in extensive study of a technical area may pursue application to this school. Students accepted into the program are transported by the district to Parkway for daily half-day sessions through which they earn general elective credits toward graduation at Mt. Lebanon High School. Students also attend the high school for daily half-day sessions for instruction in core subjects such as English, Mathematics, Science, Social Studies and Physical Education. At Parkway, students develop technical skills to obtain and hold jobs in a variety of fields. Attendance in the Parkway program does not preclude college admission following graduation. Students in grades 9-12 are eligible to attend Parkway West Career and Technical Vocational Center.

The Pennsylvania Department of Education (PDE) supports career and technical education students aligning their high school courses to a college program in order to complete a degree program in order to complete a degree, diploma or certificate. The Students Occupationally and Academically Ready (SOAR) Program allows qualified high school students enrolled in approved career and technical Programs of Study to receive college credit towards a diploma, certificate or degree in a similar program at a postsecondary institution. Students can find additional information about Articulation Agreements at [www.parkwaywest.org](http://www.parkwaywest.org).

**Pass/Fail Courses**

Students wishing to explore a curriculum area without earning a specific grade may apply in writing to take a course on a pass/fail basis. Courses eligible for pass/fail grading are the academic level courses in the Business/Information Technology, Family & Consumer Sciences, Fine Arts, and Technology Education Departments. The student must submit an application to their school counselor within the first four (4) weeks of the course. The pass/fail grade is not included in the QPA.

**Summer School**

Students planning to take credit recovery courses during the summer should enroll during the week following the last day of the school year. Summer school information is available in the School Counseling Office.

**Work Study**

Work study is designed for senior students seeking career exploration opportunities and/or development of general employment skills. Students may apply to earn a maximum of three (3) elective credits each semester for work experiences during the school day. Students must attend three (3) class periods per day at the high school and obtain a work site which is approved by their Unit Principal. Evaluations by the employer and school supervisor result in quarterly and semester grades which are not included in the QPA, but are included on transcripts. Students should apply for work study through the School Counseling Office. Final approval for work study is at the discretion of the student's Unit Principal.

SECTION III – COURSES OF STUDY										
Course No.	Course/Title	Level	Pass/ Fail	Summer Assign.	Grade				Credit Per Sem.	Page
					9	10	11	12		
<b>ENGLISH</b>										
1000	English 9	A		√	√				1	21
1100	English 10	A		√		√			1	21
1200	American Literature: Confrontation in America	A		√			√		1	21
1210	American Literature: Exploring the American Dream	A		√			√		1	21
1220	American Literature: Celebrating American Individualism	A		√			√		1	21
1423	Fiction	A				√	√	√	1	22
1503	Journalism 1	A			√	√	√	√	1	22
1543	Journalism Production (5 day)	A			√	√	√	√	1	22
1553	Journalism Production (4 day)	A					√	√	0.8	22
1563	Yearbook Production (5 day)	A			√	√	√	√	1	22
1573	Yearbook Production (4 day)	A					√	√	0.8	22
1433	English 12: The Language of Power	A		√				√	1	22
1443	English 12: Technology and Humanity	A		√				√	1	22
1453	English 12: Exploration of Social Roles	A		√				√	1	22
1463	English 12: The Study of Modern Drama	A		√				√	1	23
1473	English 12: The Language of the Natural World	A		√				√	1	23
1603	Composition	A				√	√	√	1	23
1613	Imaginative Writing	A				√	√	√	1	23
1623	Imaginative Writing Production	A				√	√	√	1	23
1800	Honors English 9	H		√	√				1	23
1810	Honors English 10	H		√		√			1	23
1820	Honors American Literature	H		√			√		1	24
1830	Advanced Placement English 12: Literature and Composition	AP		√				√	1	24
1840	Advanced Placement English : Language and Composition	AP		√			√		1	24
1853	Honors European Literature	H		√				√	1	24
1863	Honors British Literature	H		√				√	1	24
1873	Analysis of Film as a Text	A					√	√	1	24
<b>SOCIAL STUDIES</b>										
2103	American Political and Economic Systems (APES)	A			√				1	25
2123	The History of Western Cultures (HWC)	A			√				1	25
2150	AP Human Geography	AP		√		√	√	√	1	25
2151-2	World Cultures	A				√			1	25
2200	United States History	A					√		1	25

SECTION III – COURSES OF STUDY										
Course No.	Course/Title	Level	Pass/ Fail	Summer Assign.	Grade				Credit Per Sem.	Page
					9	10	11	12		
2220	Advanced Placement United States History	AP		√			√		1	25
2300	Advanced Placement European History	AP					√	√	1	26
2323	Anthropology	A				√	√	√	1	26
2343	Comparative Religions	A				√	√	√	1	26
2363	Economics	A				√	√	√	1	26
2383	Political Science	A				√	√	√	1	26
2400	Advanced Placement U.S Government and Politics	AP		√			√	√	1	26
2403	Psychology	A				√	√	√	1	26
2410	Advanced Placement Psychology	AP		√			√	√	1	26
2413	Intro to Global Studies	A				√	√	√	1	26
2443	Honors International Relations	H					√	√	1	27
2468	Positive Psychology	A				√	√	√	1	27
2483	Honors Contemporary Domestic Issues	H				√	√	√	1	27
6353	Honors Business Law	H				√	√	√	1	27
MATHEMATICS AND COMPUTER SCIENCE										
3240	Algebra 1	A		√	√	√			1	28
3250	Geometry	A		√	√	√			1	28
3260	Honors Geometry	H		√	√	√			1	28
3350	Algebra 2	A				√	√	√	1	28
3360	Honors Algebra 2	H				√	√	√	1	28
3370	College Preparatory Mathematics	A					√	√	1	28
3410	Applications of Functions and Trigonometry	A					√	√	1	28
3420	Honors PreCalculus	H				√	√	√	1	28
3430	Honors Advanced PreCalculus	H				√	√	√	1	28
3490	Fundamentals of Calculus	A						√	1	29
3505	Honors Business Calculus	H					√	√	1	29
3509	Advanced Placement (AB) Calculus	AP					√	√	1	29
3510	Advanced Placement (BC) Calculus	AP					√	√	1	29
3530	Advanced Placement Statistics	AP				√	√	√	1	29
3540	Honors Linear Algebra	H						√	1	29
3541	Statistics	A						√	1	29
3552	Finite Mathematics	A						√	1	29
3572	Personal Finance	A					√	√	1	30
3581	Business Mathematics	A					√	√	1	30
3603	Honors Computational Mathematics	H					√	√	1	30
3613	Honors History of Mathematics	H					√	√	1	30



SECTION III – COURSES OF STUDY										
Course No.	Course/Title	Level	Pass/Fail	Summer Assign.	Grade				Credit Per Sem.	Page
					9	10	11	12		
3718	Honors Introduction to Computer Programming – 1	H		√	√	√	√	√	1	30
3728	Honors Introduction to Computer Programming – 2	H		√	√	√	√	√	1	30
3850	Advanced Placement Computer Science A	AP					√	√	1	30
SCIENCE										
4210	Chemistry	A			√	√	√	√	1	31
4220	Honors Chemistry	H			√	√	√	√	1	31
4230	Honors Organic Chemistry	H		√			√	√	1	31
4240	Advanced Placement Chemistry	AP		√		√	√	√	1	32
4305	Physics	A			√	√	√	√	1	32
4320	Honors Physics	H			√	√	√	√	1	32
4330	Advanced Placement Physics C: Mechanics	AP					√	√	1	32
4340	Advanced Placement Physics C: Electricity and Magnetism	AP						√	1	33
4350	Advanced Placement Physics 1	AP		√	√	√	√	√	1	33
4360	Advanced Placement Physics 2	AP		√		√	√	√	1	33
4513	Honors Science Technology Engineering Math Exploration (STEM-X)	H			√	√	√	√	1	33
4110	Biology	A				√	√	√	1	33
4120	Honors Biology	H				√	√	√	1	34
4183	Wildlife Biology	A					√	√	1	34
4423	Forensic Science	A					√	√	1	34
4133	Honors Human Anatomy & Physiology	H					√	√	1	34
4150	Advanced Placement Biology	AP		√			√	√	1	34
4400	Environmental Geoscience	A					√	√	1	35
4410	Environmental Geoscience: [Advanced Placement Environmental Science]	AP		√			√		1	35
4053	Astronomy	A					√	√	1	35
WORLD LANGUAGES										
5210	French 1	A			√	√	√	√	1	36
5220	French 2	A			√	√	√	√	1	36
5230	French 3	A				√	√	√	1	36
5240	French 4	A					√	√	1	36
5250	Honors French 4	H					√	√	1	36
5260	Honors French 5	H						√	1	36
5270	Advanced Placement French 5	AP						√	1	36
5310	German 1	A			√	√	√	√	1	36
5320	German 2	A			√	√	√	√	1	37
5330	German 3	A				√	√	√	1	37

SECTION III – COURSES OF STUDY											
Course No.	Course/Title	Level	Pass/Fail	Summer Assign.	Grade				Credit Per Sem.	Page	
					9	10	11	12			
5340	German 4	A					√	√	1	37	
5350	Honors German 4	H					√	√	1	37	
5360	Honors German 5	H						√	1	37	
5370	Advanced Placement German 5	AP						√	1	37	
5510	Latin 1	A			√	√	√	√	1	37	
5520	Latin 2	A				√	√	√	1	37	
5530	Latin 3	A					√	√	1	37	
5550	Honors Latin 4	H						√	1	38	
5610	Spanish 1	A			√	√	√	√	1	38	
5620	Spanish 2	A			√	√	√	√	1	38	
5630	Spanish 3	A				√	√	√	1	38	
5640	Spanish 4	A					√	√	1	38	
5650	Honors Spanish 4	H					√	√	1	38	
5680	Honors Spanish 5	H						√	1	38	
5670	Advanced Placement Spanish 5	AP		√				√	1	38	
BUSINESS AND INFORMATION TECHNOLOGY											
6093	Technology & Media Apps	A	√		√	√	√	√	1	39	
6013	Web Page Design	A	√			√	√	√	1	39	
6023	Web Page Design 2	A				√	√	√	1	39	
6033	Honors Web Page Design 2	H				√	√	√	1	39	
6211	Honors Financial Accounting 1	H				√	√	√	1	39	
6222	Honors Financial Accounting 2	H				√	√	√	1	39	
6233	Finance	A	√		√	√	√	√	1	39	
6343	Entrepreneurship	A	√			√	√	√	1	39	
6353	Honors Business Law	H				√	√	√	1	40	
6413	Introduction to Business	A	√		√	√	√	√	1	40	
6500	Advanced Placement Macroeconomics	AP					√	√	1	40	
3572	Personal Finance	A	√				√	√	1	40	
3581	Business Mathematics	A	√				√	√	1	40	
FAMILY AND CONSUMER SCIENCE											
6503	Contemporary Life Management	A	√		√	√	√	√	1	41	
6513	Child Development 1	A	√		√	√	√	√	1	41	
6522	Child Development 2	A	√		√	√	√	√	1	41	
6533	Fashion Arts	A	√		√	√	√	√	1	41	
6543	Advanced Fashion Arts	A	√		√	√	√	√	1	41	
6551	Food and Nutrition	A	√		√	√	√	√	1	41	
6562	Food for Today	A	√		√	√	√	√	1	41	
6573	Food for Tomorrow	A	√		√	√	√	√	1	41	

SECTION III – COURSES OF STUDY										
Course No.	Course/Title	Level	Pass/ Fail	Summer Assign.	Grade				Credit Per Sem.	Page
					9	10	11	12		
6583	Interior Design and Housing (5 day)	A			√	√	√	√	1	41
6593	Interior Design and Housing (4 day)	A					√	√	1	41
TECHNOLOGY EDUCATION										
6611	CAD for Architecture 1	A	√		√	√	√	√	1	42
6612	Honors CAD for Architecture 2	H			√	√	√	√	1	42
6631	CAD for Engineering 1	A	√		√	√	√	√	1	42
6632	HonorsCAD for Engineering 2	H			√	√	√	√	1	42
6651	CISCO HP IT Essentials 1	A	√		√	√	√	√	1	42
6662	Honors CISCO HP IT Essentials 2	H			√	√	√	√	1	42
6691	Introduction to Woodworking	A	√		√	√	√	√	1	42
6692	Advanced Woodworking	A			√	√	√	√	1	43
6741	Graphics Design 1	A	√		√	√	√	√	1	43
6742	Honors Graphics Design 2	H	√		√	√	√	√	1	43
6763	Robotics In Power Technologies	A	√		√	√	√	√	1	43
6653	Robotics In Power Technologies 2	A	√		√	√	√	√	1	43
6851	Applied Engineering 1	A	√		√	√	√	√	1	43
6862	Honors Applied Engineering	H			√	√	√	√	1	43
FINE ARTS										
7063	Dance 1 (2 day)	A	√		√	√	√	√	0.4	44
7075	Dance 2 (2 day)	A	√			√	√	√	0.4	44
7123	Dance 3 (2 day - Semester)	A	√			√	√	√	0.4	44
7160	Dance Company	A	√		√	√	√	√	1	44
7200	Concert Choir (5 day)	A	√		√	√	√	√	1	44
7210	Concert Choir (4 day)	A	√				√	√	0.8	44
7215	Honors Concert Choir	H				√	√	√	1	44
7230	Concert Band (5 day)	A	√		√	√	√	√	1	44
7240	Concert Band (4 day)	A	√				√	√	0.8	44
7250	Wind Ensemble (5 day)	A	√		√	√	√	√	1	45
7260	Wind Ensemble (4 day)	A	√				√	√	0.8	45
7270	Orchestra (strings)	A	√		√	√	√	√	1	45
7280	Orchestra (woodwinds, brass, percussion, piano)	A	√		√	√	√	√	1	45
7290	Honors Orchestra	H				√	√	√	1	45
7300	Honors Wind Ensemble	H				√	√	√	1	45
7313	Music Technology 1	A	√		√	√	√	√	1	45
7323	Music Technology 2	A	√		√	√	√	√	1	45
7330	Music Technology 3 (5 day)	A	√			√	√	√	1	45
7340	Music Technology 3 (4 day)	A	√				√	√	0.8	45
7350	Advanced Placement Music Theory	AP				√	√	√	1	46

**SECTION III – COURSES OF STUDY**

Course No.	Course/Title	Level	Pass/Fail	Summer Assign.	Grade				Credit Per Sem.	Page	
					9	10	11	12			
7433	Technical Theatre Company (5 day) (Theatre Art & Design)	A	√		√	√	√	√	1	46	
7443	Technical Theatre Company (4 day) (Theatre Art & Design)	A	√				√	√	0.8	46	
7463	Community Service Stage Crew (3 day)	A	√		√	√	√	√	0.6	46	
7503	Speech Communication	A	√		√	√	√	√	1	46	
7528	Intro to Theatre Arts	A	√		√	√	√	√	1	46	
7538	Principles of Acting	A	√			√	√	√	1	46	
7548	Principles of Directing	A	√			√	√	√	1	46	
7578	Theatre Workshop	A	√				√	√	1	46	
7583	Evening Theatre Company	A	√				√	√	1	46	
7603	Art 1 (5 day)	A	√		√	√	√	√	1	47	
7613	Art 1 (4 day)	A	√				√	√	0.8	47	
7633	Art 2 (5 day)	A	√			√	√	√	1	47	
7643	Art 2 (4 day)	A	√				√	√	0.8	47	
7653	2-D Studio Arts (5 day)	A	√			√	√	√	1	47	
7663	2-D Studio Arts (4 day)	A	√				√	√	0.8	47	
7673	3-D Studio Arts (5 day)	A				√	√	√	1	47	
7675	3-D Studio Arts (4 day)	A					√	√	0.8	47	
7683	Honors 2-D Studio Arts	H				√	√	√	1	47	
7690	Advanced Placement Studio Art	AP				√	√	√	1	47	
7693	Honors 3-D Studio Arts	H				√	√	√	1	47	
7743	Media Arts & Production 1	A	√		√	√	√	√	1	48	
7760	Advanced Media Production (5 day)	A	√		√	√	√	√	1	48	
7770	Advanced Media Production (4 day)	A	√				√	√	0.8	48	
7803	Digital Filmmaking (5 day)	A				√	√	√	1	48	
7813	Digital Filmmaking (4 day)	A				√	√	√	0.8	48	
<b>HEALTH AND PHYSICAL EDUCATION</b>											
7903	Health & Wellness	A					√	√	√	1	49
7940	Physical Education 9 (2 day)	A			√				0.4	49	
7950	Physical Education 10 (2 day)	A				√			0.4	49	
7953	Adapted Physical Education (5 day)	A	√		√	√	√	√	1	49	
7963	Seasonal Sports (2 day)	A	√				√	√	0.4	49	
7964	Performance & Wellness (4 day)	A	√		√	√	√	√	0.8	50	
7965	Performance & Wellness (5 day)	A	√		√	√	√	√	1	50	
7975	Mindful Movement : Stretch, Strengthen, and Breathe (2 day)	A	√		√	√	√	√	0.4	50	
7983	American Red Cross Lifeguarding (2 day)	A	√				√	√	0.4	50	
7993	PE Partners (2 day)	A	√			√	√	√	0.4	50	

## ENGLISH

Mt. Lebanon School District requires that students complete eight (8) credits of English, a minimum of one credit each semester of the four-year sequence. Required courses are English 9, English 10, and an American literature course for juniors, at either academic honors or AP level. Seniors may make two selections from a menu of several semester courses, choose two semester honors courses, or opt for the year-long AP English 12: Literature and Composition. Honors and Advanced Placement courses, designed for the exceptionally able and motivated student, require screened admission. These courses emphasize creative and critical thinking and require intensive reading and writing. Extensive independent work is also demanded.

Suggested Sequence of English Courses:

9th	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
Academic English 9 Honors English 9	Academic English 10 Honors English 10	One year-long American Literature course:  Honors American Literature or AP English: Language and Composition	Two semester academic courses or Two semester honors courses or AP English 12: Literature and Composition

<b>ENGLISH 9</b>	<b>1000 – Full Year</b>	Gr. 9	Prerequisite: None
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The course consists of three interrelated thematic units. Unit one, Forces that Shape Identity, is the core and naturally comes first. We will attempt to define identity by examining the complex forces that construct it. Unit two, Confronting Societal Constraints on the Individual, focuses on the specific conflict between an individual's desire for self-definition and the societal forces that attempt to contain the individual. Unit three, The Breakdown of Ethical Foundations in Society and its Effect on Individual Identity, our last area of study for the year, examines the loss of stability in society and the effects of this breakdown on the individual. Thus, units two and three function as specific applications of the knowledge gained in unit one. The literature includes *Anthem*, *To Kill a Mockingbird*, *Julius Caesar*, *Lord of the Flies*, *Animal Farm*, and excerpts from Hayakawa's *Language in Thought and Action*, poetry, short stories, and memoirs. In their writing, students will analyze a variety of texts and compose several personal narratives that emphasize scene setting and reflection.

<b>ENGLISH 10</b>	<b>1100 – Full Year</b>	Gr. 10	Prerequisite: English 9
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The English 10 curriculum builds on the knowledge and skills from the ninth grade course as we bridge from the foundation of the analytical essay to construct additional writing tasks, including a formal research paper. The course is comprised of four thematic, multi-genre units (major texts are included in parenthesis): the Heroic Quest (*Into Thin Air*). The Quest for Power (*Macbeth*), The Quest for Knowledge (*Fahrenheit 451*), excerpts from *Frankenstein*, and the Quest for Social Status (*A Thousand Splendid Suns*). A summer reading is also required.

<b>AMERICAN LITERATURE: Confrontation in America</b>	<b>1200– Full Year</b>	Gr. 11	Prerequisite: English 10 A or H
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Confrontation has built America and, for better or worse, made it into the country we see today. This course will study American literature that focuses on defending personal liberties or healing from and understanding conflict. We will study different types of conflict from class and generational struggles to race and existential issues. Students will use multi-genre/multi-media texts to explore how confrontation has shaped America. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer reading and journal activity is also a requirement of this course.

<b>AMERICAN LITERATURE: Exploring the American Dream</b>	<b>1210 – Full Year</b>	Gr. 11	Prerequisite: English 10 A or H
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What is the American Dream? What are the roots of the American Dream? How does access to the American Dream differ for various individuals and/or groups? Is the American Dream still relevant today? Students will use multi-genre/multi-media texts to explore how the American Dream corresponds with or has been affected by the various cultural transformations in American history. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer reading activity is also a requirement of this course.

<b>AMERICAN LITERATURE: Celebrating American Individualism</b>	<b>1220-Full Year</b>	Gr. 11	Prerequisite: English 10 A or H
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What are the roots of American Individualism as reflected in our literature? How have American writers depicted the tension between society's expectations and the individual's need for personal freedom? What are the motives and consequences for questioning, breaking, adapting, or simply ignoring society's rules? How is our own quest for personal freedom reflected in the evolving collection of American literature? Students will use multi-genre/multi-media tests to explore the relationship between the individual and society. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer reading and journal activity is also a requirement of this course.

<b>FICTION</b>	<b>1423 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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This course is offered on the opposite semester that Composition is offered. Based on individual strengths and weaknesses as a reader and a writer, students will be prescribed a plan of reading and writing activities to be completed with the goal of addressing identified weaknesses. The teacher closely consults with the students as they progress through their plan. The reading process is emphasized as well as learning how to write with an awareness of audience. This course is offered to remediate prior course failure, and may be repeated for credit.

<b>JOURNALISM 1</b>	<b>1503 – Sem.</b>	Gr. 9,10, 11, 12	Prerequisite: None
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Students in this course learn to write news, sports, features and editorials in journalistic style. Students also examine the legal and ethical restrictions on a free press. Other units include basic headline writing, editing and layout. It is important to note that the Journalism 1 course will be particularly challenging for students who struggle with writing. Students interested in working on the school paper should consider registering for Journalism Production in the semester following Journalism 1. This course is only available for elective credit.

<b>JOURNALISM PRODUCTION</b>	<b>1543 – Sem. (5 days/wk)</b>	Gr. 9,10, 11, 12	Prerequisite: Journalism 1
	<b>1553 – Sem. (4 days/wk)</b>	Gr. 11, 12	

Students in Journalism Production will be assigned to editorial positions and be responsible for producing the student newspaper: *The Devil's Advocate*. The course will incorporate advanced writing and layout instruction. Students will compile portfolios of their writing, editing and layout achievements. They also will lead critiques of student and professional publications. In addition students will complete journalism-related outside reading. Students must be willing to commit time outside of class to the production of the newspaper. Students receive elective credit for Journalism Production, and the course may be repeated for credit.

<b>YEARBOOK PRODUCTION</b>	<b>1563 – Sem. (5 days/wk)</b>	Gr. 9,10,11, 12	Prerequisite: Successful completion of Yearbook Production 1 <sup>st</sup> semester for 2 <sup>nd</sup> semester seniors. <b>Screened</b>
	<b>1573 – Sem. (4 days/wk)</b>	Gr. 11, 12	

Yearbook Production has been designed to provide students with journalistic skills and the ability to apply those skills to actual yearbook production. In this 21st century, cross-curricular, project-based class, students work collaboratively by using technology such as digital cameras, photo editing software and Adobe InDesign or online design software to digitally produce a yearbook. Students use writing skills, communication skills and creativity to tell the story of the school community and peers in an engaging way. Mastery of the goals and objectives fully exposes staff members to all areas of the publications world as students think critically to meet deadlines, track goals and utilize multimedia to market and disseminate information that aligns with and models an actual business. With this training, students should be able to pursue journalism with a strong background. The Lebanon Log publication gains attention each year as an outstanding yearbook—an important historical record and tradition in which the school and community can take pride. This course is available for elective credit. Yearbook Production is **repeatable**, and it is suggested that students sign up for **both semesters** due to the on-going nature of yearbook production.

<b>ENGLISH 12: Language of Power</b>	<b>1433 – Sem.</b>	Gr. 12	Prerequisite: American Lit.
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What is the nature of power? How do those in power use language and propaganda to affect decision-making? How do leadership choices affect social values? Students will use multi-genre/multi-media texts to explore how leaders, corporations, and the media shape society. Drawing from current articles and essays, we will study advertising, media, and truth as we shape our own conception of today's complex power structures. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer assignment is also a requirement of this course.

<b>ENGLISH 12: Technology and Humanity</b>	<b>1443 – Sem.</b>	Gr. 12	Prerequisite: American Lit
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How do writers envision the future by examining the present? How do futuristic settings reveal and comment on current social trends? To what extent is man a user or a project of technology? How do we understand the relationship between what technology can do and what technology should do? Students will use multi-genre/multi-media texts to explore how technology has shaped cultural values and continues to drive social development. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer assignment is a requirement of this course.

<b>ENGLISH 12: Exploration of Social Roles</b>	<b>1453 – Sem.</b>	Gr. 12	Prerequisite: American Lit.
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How is social position determined? How are stereotypes generated and perpetuated in our society? Are stereotypes ever justified? How fairly are groups and individuals represented in media and literature? Students will use multi-genre/multi-media texts to explore the extent to which social positions are assigned by outside forces. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer assignment is a requirement of this course.

<b>ENGLISH 12: The Study of Modern Drama</b>	<b>1463</b> – Sem.	Gr. 12	Prerequisite: American Lit.
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What is unique about characterization in drama? How are the elements of drama affected by story lines that don't follow the boundaries of reality? What is the nature of existence? What is the interplay of reality and illusion and what are the boundaries of each? What is the effect of the stage on reality and reality on the stage? Students will use multi-genre/multi-media texts to explore the relationship between theater and the essential nature of reality in a modern world without answers. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer assignment and journal activity is also a requirement of this course.

<b>ENGLISH 12: The Language of the Natural World</b>	<b>1473</b> – Sem.	Gr. 12	Prerequisite: American Lit.
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How does science tell a story? How do writers capture the complexity of science artistically and shape viewpoints about human impact on the natural world? Does science discover truth or does science create truth? Students will use multi-genre/multi-media texts to explore expressions of the natural world and human interactions in it. Students will be assessed on the proficiency of their reading, writing, speaking, and listening skills through written essays, visual presentations, and other projects. A summer assignment is a requirement of this course.

<b>COMPOSITION</b>	<b>1603</b> – Sem.	Gr. 10, 11, 12	Prerequisite: None
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This course is offered on the opposite semester that Fiction is offered. Based on strengths and weaknesses as a writer and a reader, students will be prescribed a plan of writing and reading activities to be completed with the goal of addressing identified weaknesses, the teacher closely consults with the students as they progress through their plan. The writing process is emphasized as well as grammar, usage, sentence structure, organization, clarity, purpose, and style. This course is intended for students who need intensive instruction in reading and writing. This course is offered to remediate prior course failure, and may be repeated for credit.

<b>IMAGINATIVE WRITING</b>	<b>1613</b> – Sem.	Gr. 10, 11, 12	Prerequisite: None
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Students will examine past and contemporary memoirs, short fiction, and poetry with an eye to constructing their own original works. Student writing is the focus of this course, and we will offer helpful criticism in writing workshops after we discuss key elements of each genre. Students interested in this course should have proficient writing skills and a love of the written word. This course is only available for elective credit, and may be repeated for credit.

<b>IMAGINATIVE WRITING PRODUCTION</b>	<b>1623</b> – Sem.	Gr. 10, 11, 12	Prerequisite: Imaginative Writing
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Having taken Imaginative Writing as a prerequisite, this course offers both advanced work in poetry, fiction, creative non-fiction, playwriting and songwriting, while giving students the chance to work as *Pulse* staff members. Students will compose more advanced original works in the three above-mentioned genres, engage in writing workshops, and revise with an eye towards publication both in *Pulse*. This course will value both core creative writing skills and interdisciplinary teaming with an eye towards a viable product that captures the best student artists. This course is only available for elective credit, and may be repeated for credit.

<b>HONORS ENGLISH 9</b>	<b>1800</b> – Full Year	Gr. 9	Prerequisite: None <b>Screened</b>
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This course establishes the foundation for the Honors/AP English program; therefore, parents and prospective students should exercise caution when considering this challenging course. Critical analysis in discussion and writing is emphasized and applied to texts like *To Kill a Mockingbird*, *Animal Farm*, *Lord of the Flies* and *Midsummer Night's Dream*. Other literary modes to be studied include poetry, short stories, critical essays, and the memoir. Students are required to read two selections from an approved reading list during the summer before grade 9 and one selection each nine-week period during the year. Students become proficient as writers of multi-paragraph literary essays. Development of an original argument, supporting evidence, and thorough analysis leads them to become logical and persuasive writers. Lastly, through the use of Hayakawa's *Language in Thought and Action*, students apply the fundamental concepts of semantics to many of the literary texts.

<b>HONORS ENGLISH 10</b>	<b>1810</b> – Full Year	Gr. 10	Prerequisite: H Eng. 9 or <b>Screened</b>
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This course is the second phase in the four-year exploration of the idea that identity is a perpetual interplay of cultural, economic, historic, and personal forces. The Honors English 10 curriculum builds on the ninth grade concept of self-definition by moving toward an exploration of maturity as an evolution of the self, as we critique, evaluate, and respond to our own self-concept. The course is comprised of four thematic, multi-genre units (major texts are included in parenthesis): the Heroic Quest (*Beowulf and Grendel*), The Quest for Knowledge (*Paradise Lost, Frankenstein, and Waiting for Godot*), the Quest for Power (*Macbeth, Things Fall Apart*), and the Quest for Social Status (*The Canterbury Tales, Jane Eyre, and The English Patient*). Students are expected to have completed two outside readings from the approved outside reading list during the summer prior to the tenth grade. Course requirements also include three quarterly outside readings.

<b>HONORS AMERICAN LITERATURE</b>	<b>1820 – Full Year</b>	Gr. 11	Prerequisite: H Eng 10 or <b>Screened</b>
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The curriculum focuses on the literature of the United States as it relates to the history and culture of the country. Students will read selected works from Emerson, Whitman and Thoreau, *Death of a Salesman*, *The Crucible*, *The Great Gatsby*, works by Ernest Hemingway, *A Raisin in the Sun*, *The Catcher in the Rye*, *Of Mice and Men*, and *The Awakening*, outside readings, and other assigned works. Composition includes a research essay, critical/analytical essays as well as for outside readings, and some creative writing. Students are challenged with an intensive study of many literary selections and an expectation for clarity and fluency in writing; prospective students should possess strong interest in studying and discussing American literature and philosophy and in addition to well-developed writing skill. Students are required to read three outside reading selections during the summer.

<b>ADVANCED PLACEMENT ENGLISH: LANGUAGE AND COMPOSITION</b>	<b>1840 - Full Year</b>	Gr. 11	Prerequisite: None <b>Screened</b>
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AP English Language and Composition will focus on rhetorical analysis and argumentation through mainly non-fiction as it weaves in American literature, engaging in critical reading techniques and honing writing skills via analysis, argumentation, and persuasion for college and beyond. We will apply the appeals, the canons, and the rhetorical triangle to texts in various units: the environment, education, the American Dream, media, and satire. A mixed media course that deconstructs images, videos, speeches and traditional texts, both classic and contemporary, AP Language and Composition focuses on context, style, audience, and genre as it affords each author the situation in which to shape purpose and meaning. We start with a summer assignment and progress through each unit, weaving in critical reading, writing, grammar and mechanics, and AP practice tests from multiple choice to in-class essays. You will be ready for the exam in May and for college writing.

<b>ADVANCED PLACEMENT ENGLISH 12: LITERATURE AND COMPOSITION</b>	<b>1830 – Full Year</b>	Gr. 12	Prerequisite: H Am Lit, AP Language, or <b>Screened</b>
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Advanced Placement Literature and Composition is a college-level course that explores the human condition as presented through diverse genres of literature. This class is the culmination and celebration of four years of Honors English study at Mt. Lebanon and is designed to prepare students for the demands of college writing. It is a rigorous and engaging study of literature of all genres. AP Literature and Composition furthers students' study of themselves by considering the way an individual is seen by others and what a responsible person does with that perspective. In this class, students read and analytically critique texts through both written and oral expression and also engage in creative writing and presentations that synthesize key thematic points of study associated with each unit. Participation plays an important role in the class as students assume responsibility for developing and engaging in seminar-oriented discussion as well as individual and collaborative critical inquiry. Through sustained analytical writing and the study of both the literature of the course and the methodology associated with the optional AP exam, students will be ready for the exam in May. A summer assignment is required.

<b>HONORS EUROPEAN LITERATURE</b>	<b>1853 – Sem.</b>	Gr. 12	Prerequisite: None <b>Screened</b>
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Students experience the emotional tension of the early 20th century through the greatest writers of the era. As traditional values break down, the writers capture the impact of cultural and social revolution on their characters that experience injustice, loneliness, and alienation. Unlike American literature, European literature explores existentialism. Examples of existentialist thinking will be explored in major works of Camus, Kafka, and Sartre. Students will also read short stories by these authors and by Capek and Singer. The novels studied in the course are *Madame Bovary*, *Notes from Underground*, and *The Stranger*. Additionally, students will read European plays, such as *Miss Julie*, *A Doll's House* and *The Visit*. Through teacher guided discussion, students develop metaphorical thinking. Writing assignments include formal essays, creative responses to stories, and reading quizzes.

<b>HONORS BRITISH LITERATURE</b>	<b>1863 – Sem.</b>	Gr. 12	Prerequisite: None <b>Screened</b>
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In their own distinctive styles, William Shakespeare, Jane Austen, Charles Dickens, Thomas Hardy, Joseph Conrad, and Graham Greene present characters confronting universal human predicaments. Students must have sophisticated reading skills and a serious interest in literature to deal successfully with classic novels and some professional criticism about them. Class discussions and writing assignments are integral to each study. A summer assignment and journal activity is also a requirement.

<b>ANALYSIS OF FILM AS A TEXT</b>	<b>1873 – Sem.</b>	Gr. 11,12	Prerequisite: None <b>Screened</b>
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While most English classes focus on the written word, this elective will examine how film has evolved into an art form as rich and as worthy of analysis as the world's greatest literature. Just like authors with their literature, directors purposely construct films using a variety of techniques in order to direct their viewers towards specific messages. Together, we will study film techniques, various directors (including Alfred Hitchcock, Orson Welles, Joel & Ethan Coen, Wes Anderson, Stanley Kubrick, and Vittorio DeSica), and critical essays to learn this medium has a personal and global impact in the modern world. Outside viewings, along with short, processed writing pieces are required. This course is only available for elective credit.



## SOCIAL STUDIES

Mt. Lebanon School District requires six (6) graduation credits in social studies. Required courses include American Political and Economic Systems and History of Western Culture in grade 9, World Cultures or AP Human Geography in grade 10 and United States History or Advanced Placement United History in grade 11. The department also offers numerous and varied elective courses.

<b>AMERICAN POLITICAL AND ECONOMIC SYSTEMS (APES)</b>	<b>2103 – Sem.</b>	Gr. 9	Prerequisite: None
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This course combines the studies of the American political and economic systems. In the political segment of the course, students study the Constitution and the Bill of Rights, the functions and operation of the three branches of government, the influences on government, and the responsibilities of citizenship. The economics segment of the course includes the introduction of basic economic terminology and the operation of the market economy in the U.S.

<b>HISTORY OF WESTERN CULTURES (HWC)</b>	<b>2123 – Sem.</b>	Gr. 9	Prerequisite: None
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This course traces the origins of western culture (social, political, economic and belief-value systems) through the examination of European history. Major topics include European geography, the transition of Europe from the Middle Ages to the period of the Renaissance and Reformation, the development of France and England as democratic nations, the emergence of a market economy, the Industrial Revolution, conflict in the twentieth century and current issues in Europe today.

<b>ADVANCED PLACEMENT HUMAN GEOGRAPHY</b>	<b>2150 – Full Year</b>	Gr. 10,11, 12	Prerequisite: APES and HWC <b>Screened</b>
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This course can replace World Cultures as the 10<sup>th</sup> grade requirement or be taken as an elective in 11<sup>th</sup> or 12<sup>th</sup> grade. AP Human Geography presents high school students with the curricular equivalent of an introductory college-level course in human geography or cultural geography. Content is presented thematically rather than regionally and is organized around the discipline's main subfields: economic geography, cultural geography, political geography, and urban geography. The approach is spatial and problem-oriented. Case studies are drawn from all world regions, with an emphasis on understanding the world in which we live today. Historical information serves to enrich analysis of the impacts of phenomena such as globalization, colonialism, and human– environment relationships on places, regions, cultural landscapes, and patterns of interaction. By the end of the course, students should have developed skills in approaching problems geographically, using maps and geospatial technologies, thinking critically about texts and graphic images, interpreting cultural landscapes, and applying geographic concepts such as scale, region, diffusion, interdependence, and spatial interaction, among others. Completion of a summer assignment is required. Students cannot transfer from AP Human Geography to World Cultures after the first four weeks of the first semester. At the end of the first semester, a student may request a transfer from AP Human Geography to World Cultures for the second semester. There is a strong expectation that students will take the AP examination in May.

<b>WORLD CULTURES</b>	<b>2151 &amp; 2152 - Full Year</b>	Gr. 10	Prerequisite: None
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After students develop skills in cultural analysis, they apply their skills throughout the year in each of the regional studies. Students examine the contemporary culture in all dimensions (social, political, economic, and belief-value), trace the historical roots, and examine the culture in relation to its geography and the global community. Regions to be studied include Russia and Eastern Europe, China, Japan and Korea, sub-Sahara Africa, the Middle East, India and Latin America.

<b>UNITED STATES HISTORY</b>	<b>2200 – Full Year</b>	Gr. 11	Prerequisite: None
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This course provides students the means to understand the social forces which have shaped them as Americans and will continue to move them into the future. Students learn to use the tools of historical analysis and the concepts of social dynamics in order to be able to interpret the future as it unfolds. The time period studied is from 1877 to the present. Great emphasis is placed on the historical problems and issues of the twentieth century. Special attention is given to the period since World War II. The approach to the subject matter is both chronological and topical. A unique aspect of the course is the U.S. History essay program - a semiannual assessment whose process is taught through teaming with the English Department.

<b>ADVANCED PLACEMENT UNITED STATES HISTORY</b>	<b>2220 – Full Year</b>	Gr. 11	Prerequisite: World Cultures or AP Human Geography <b>Screened</b>
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This course covers U.S. history from 1607 to the present and follows an Advanced Placement approved syllabus. The course demands both a serious commitment and a high degree of personal responsibility. Instruction includes lecturing, extensive debate and discussion, student writing, and lessons designed to hone student argumentation and inquiry skills. Forms of evaluation include prepared papers, activities and examinations including finals at the end of each semester. The summer assignment includes a written component (either paragraph replies to various prompts or an essay) and preparing for an objective exam in the first week of school. There is a strong expectation that students will take the AP examination in May. Students cannot transfer from AP United States History to Academic US History after the first four weeks of the first semester. At the end of the first semester, a student may request a transfer from AP US History to academic US History for the second semester.

<b>ADVANCED PLACEMENT EUROPEAN HISTORY</b>	<b>2300 – Full Year</b>	Gr. 11, 12	Co-requisite: APUSH or U.S. History <b>Screened</b>
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This course is designed to fulfill the academic requirements of the national Advanced Placement program. The course covers the period from 1450 to the present in a depth comparable to a college level survey course. The approach of the course is chronological with topical investigation built into the framework. Students are introduced to the complexity of historical study by utilizing the fields of social, political, economic, scientific, intellectual and cultural history. There is a strong expectation that students will take the AP examination in May.

<b>ANTHROPOLOGY</b>	<b>2323 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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In this semester course on the study of man, students scientifically explore what it means to be human. Both physical and cultural anthropology are studied. Specifically, physical anthropology deals with primatology (primate behavior), paleontology (fossil evolutionary evidence), human variation (race) and genetics. Cultural anthropology deals with ethnographic analysis (living cultures), archeology and linguistics.

<b>COMPARATIVE RELIGIONS</b>	<b>2343 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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Students develop an awareness of the religious dimensions of human history through the study of religious diversity in contemporary communities of the United States and the world. Five religious traditions are studied: Judaism, Christianity, Islam, Hinduism and Buddhism.

<b>ECONOMICS</b>	<b>2363 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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The focus of this course is the structure and operation of the American economy. There is an emphasis on the market system and the role of government in the economy. The functions of money and banking, the components of the gross domestic product, and the factors influencing economic growth are also presented in relation to the economy.

<b>POLITICAL SCIENCE</b>	<b>2383 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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The course will introduce students to fields of study in Political Science including political theory, comparative government, and U.S. government and politics. Students will study and analyze how political theories originated and developed over time, to the present, and how they influence current concepts of government, governmental institutions, and decision making processes. This course includes an in-depth look at the critical documents of American constitutional government, institutions of American government, the policy making process, and concludes with a look at civil rights and civil liberties.

<b>ADVANCED PLACEMENT U.S. GOVERNMENT AND POLITICS</b>	<b>2400 – Full Year</b>	Gr. 11, 12	Co-requisite: APUSH, U.S. History or Political Science <b>Screened</b>
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The Advanced Placement course in United States Government and Politics is designed to provide students a critical perspective on politics and government. This course involves both the study of general concepts used to interpret U. S. politics and analysis of specific case studies. It requires familiarity with the various institutions, groups, beliefs and ideas that make up the American political reality. The course begins with a broad overview of the Constitution, and then examines the specific parts of the US government. Interspersed with this are analyses and debates over historical and current policy and political decisions. Students are expected to participate in class, informally during the week, but also in more formal, debate and simulation settings. A summer assignment is required. There is a strong expectation that students will take the AP examination in May.

<b>PSYCHOLOGY</b>	<b>2403 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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Psychology is the scientific study of behavioral and mental processes. Curriculum is modeled after the American Psychological Association's standards. The class will survey the major principles of psychology. Introduces the history of psychology, personality, abnormal behavior, social psychology, feelings and emotions, research methodologies, experimental psychology, learning and memory, and altered states of consciousness, including sleep and dreams.

<b>ADVANCED PLACEMENT PSYCHOLOGY</b>	<b>2410 – Full Year</b>	Gr. 11, 12	Prerequisite: Biology - <b>Screened</b>
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This course is designed to fulfill the academic requirements of the national College Board Advanced Placement program. The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice. There is a strong expectation that students will take the AP examination in May.

<b>INTRODUCTION TO GLOBAL STUDIES</b>	<b>2413 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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This one semester, interdisciplinary class will focus on the concept of globalization via its human, economic, and political dimensions. Students will explore global issues from varying local, regional, national, and international perspectives. Students will learn how to analyze and interpret these global issues in an academic context. Key areas of study will include: poverty and development, the global economy and workforce, global health, global environmental concerns, global governance, and cultural identity.

<b>HONORS INTERNATIONAL RELATIONS</b>	<b>2443 – Sem.</b>	Gr. 11, 12	Prerequisite: World Cultures or AP Human Geography and Co-requisite: USH or APUSH <b>Screened</b>
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This senior level semester course will immerse students in the study of critical issues facing our world. Students will be challenged to understand the problems and events shaping world affairs today. It begins by examining key concepts such as national interest, power, diplomacy, realism and idealism. It then moves to contemporary issues and topics such as U.S. foreign policy, terrorism, globalization, the global economy, immigration, international crime, international justice and genocide. Among the regions that will be examined are East Asia, Europe, the Middle East, Africa and Latin America. The course is organized around lectures, debates, readings, guest speakers and simulations.

<b>POSITIVE PSYCHOLOGY</b>	<b>2468 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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Students will explore characteristics of human flourishing, life satisfaction, and mental well-being. Additional topics are: happiness, mindfulness, empathy, compassion, relationships, growth mindset, achievement, habits, creativity, the state of *flow* and character strengths. Students will be exposed to a variety of skills and strategies such as attention practices, commitment, intentions, goal setting, grit, resilience and stress management. Students will learn evidence based tools they may put into real-world practice to help them thrive.

<b>HONORS CONTEMPORARY DOMESTIC ISSUES</b>	<b>2483 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None <b>Screened</b>
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This semester course provides students with the opportunity to explore current domestic issues in the realm of politics, economics, peace and security, health and the environment and between liberal and conservative culture wars. Students have flexibility in the topics they study based on the current issues happening each semester. Since this is an honors level course, students are expected to have an extensive background in formal research skills, writing and public speaking. It is also recommended that students have a substantial knowledge of current U.S. and world affairs. A student may take this course up to two times for credit, but never more than once in the same school year.

<b>HONORS BUSINESS LAW</b>	<b>6353– Sem. 2</b>	Gr. 10, 11, 12	Prerequisite: None
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A knowledge of business law is useful for all students, whether or not they want to study business or law, as all students will ultimately become citizens, workers, and consumers in their communities and the greater global society. This course helps students to understand their legal rights and responsibilities in their personal lives, to understand how businesses are affected by statutes and regulations, and to understand how business law impacts commerce. Students also explore many important social and ethical issues. The course includes guest speakers, classroom dramatizations, video presentations, and a field trip to the Allegheny County Courthouse and Jail.

## MATHEMATICS AND COMPUTER SCIENCE

Mt. Lebanon School district requires six (6) graduation credits in mathematics. Students earn general elective, not math, credits for computer science courses.

Although a graphing calculator is required only for the statistics courses, students may find it beneficial to have their own graphing calculator for most other math courses. Math teachers do have classroom sets of calculators and make calculators available for students' home use. Teachers can advise students on the type of graphing calculator they may wish to purchase.

<b>ALGEBRA 1</b>	<b>3240</b> – Full Year	Gr. 9, 10, 11, 12	Prerequisite: None
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This course is designed to meet the needs of students who have not mastered key algebraic concepts from the Math 8 course. The major areas of focus for the course will be on helping students develop a deep understanding of major algebraic concepts while also preparing students for successful entry into the Geometry course the following year. Upon teacher recommendation, students who take the course will have the option of taking Geometry and Algebra 2 concurrently during the next school year.

<b>GEOMETRY</b>	<b>3250</b> – Full Year	Gr. 9, 10, 11, 12	Prerequisite: Math 8
<b>HONORS GEOMETRY</b>	<b>3260</b> – Full Year	Gr. 9, 10, 11, 12	Prerequisite: H Math 8 or <b>Screened</b>

Students in these courses will develop a deep conceptual understanding of the properties of geometric shapes and demonstrate this through their proficiency at reasoning and proof. Hands-on manipulatives and physical constructions are mixed with appropriate technologies to allow students with the opportunities to investigate and conjecture about geometrical patterns. Topics for the course will include the study of various polygons, the Pythagorean Theorem, area, volume, and proof. Upon teacher recommendation, honors students may also elect to take Honors Algebra 2 concurrently as a freshman elective course.

<b>ALGEBRA 2</b>	<b>3350</b> – Full Year	Gr. 10, 11, 12	Prerequisite: Geometry
<b>HONORS ALGEBRA 2</b>	<b>3360</b> – Full Year	Gr. 10, 11, 12	Prerequisite: H Geometry or <b>Screened</b>

The culmination of our secondary core mathematics program, this course continues to offer students experiences rich in mathematical computations and applications that encourage the exploration of ideas, data, patterns, and algebraic relationships. Graphing calculators and other technologies are incorporated throughout the course in order to help students explore real data and functions in dynamic learning environments. Specific topics to be covered include patterns, recursion, linear systems, functions, transformations, exponentials, quadratics, introductory trigonometry, sequences, series, regression, statistics and probability.

<b>COLLEGE PREPARATORY MATHEMATICS</b>	<b>3370</b> – Full Year	Gr. 11, 12	Prerequisite: Algebra 2
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This course provides a comprehensive review of fundamental high school mathematics topics. Course content closely matches SAT and ACT topics, as well as the skills needed in entry level college math courses. Students improve their understanding of math topics through extensive practice and application. Course topics include but are not limited to problem solving, number theory, algebra, measurement, geometry, probability, and statistics. **Students cannot transfer from this course to Applications of Functions & Trigonometry after the fourth week of the first semester.** If level change is made within the accepted four-week period, the student is required to make up all missed assignments and assessments for the new course.

<b>APPLICATIONS OF FUNCTIONS &amp; TRIGONOMETRY</b>	<b>3410</b> – Full Year	Gr. 11, 12	Prerequisite: Algebra 2
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Students continue learning the algebraic, geometric, and trigonometric concepts developed in the Algebra and Geometry courses. Special emphasis is placed on real world applications and problem-solving strategies. This course prepares students for Fundamentals of Calculus. **Students cannot transfer from this course to College Preparatory Mathematics or Honors Precalculus after the fourth week of the first semester.** If this level change is made within the accepted four-week period, the student is required to make up all missed assignments and assessments for the new course.

<b>HONORS PRECALCULUS</b>	<b>3420</b> – Full Year	Gr. 10, 11, 12	Prerequisite: H Algebra 2 or <b>Screened</b>
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This course expands upon the algebraic, geometric, and trigonometric concepts from prior Honors Math courses. Students are required to apply prior knowledge and skills to improve problem solving and critical thinking ability. The course covers content and develops skills that are important for continuing to Honors or AP Calculus. **Students cannot transfer from this course to Applications of Functions & Trigonometry or Honors Advanced Precalculus after the fourth week of the first semester.** If this level change is made within the accepted four-week period, the student is required to make up all missed assignments and assessments for the new course.

<b>HONORS ADVANCED PRECALCULUS</b>	<b>3430</b> – Full Year	Gr. 10, 11, 12	Prerequisite: H Algebra 2 or <b>Screened</b>
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This course, designed for the exceptionally able mathematics student, emphasizes mathematical modeling, problem solving, proof and derivation. This is a preparatory course for the Advanced Placement BC Calculus course. **Students cannot transfer from Honors Advanced Precalculus to Honors Precalculus after the completion of the first four weeks of the first semester.**

<b>FUNDAMENTALS OF CALCULUS</b>	<b>3490 – Full Year</b>	Gr. 12	Prerequisite: Appl. Of Functions or H Precalculus
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This course is designed as an introduction to differential and integral calculus without the emphasis on theory. Students will learn techniques for finding derivatives and integrals and apply them to solving real world application problems. The graphing calculator as an investigative tool is an integral part of the course. As a prerequisite, students must have completed a course covering trigonometry.

<b>HONORS BUSINESS CALCULUS</b>	<b>3505 – Full Year</b>	Gr. 11, 12	Prerequisite: H Precalc. or <b>Screened</b>
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This is a rigorous, college level, calculus course for students interested in business, economics, and other social sciences. It introduces the basic concept of limit and its application to continuity, differentiation, integration, maximization, minimization and partial derivatives. Applications to the social sciences, especially business and economics, are stressed. The calculus of trigonometric functions is not covered. **Students cannot transfer from this course to AP AB Calculus or Fundamentals of Calculus after the fourth week of the first semester.**

<b>ADVANCED PLACEMENT (AB) CALCULUS</b>	<b>3509 - Full Year</b>	Gr. 11, 12	Prerequisite: H Pre Calc, H Adv. Prec or <b>Screened</b>
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This course consists of a full academic year of work in theoretical calculus and related topics that are comparable to a semester of college Calculus 1. The class is for those students who intend to place out of a comparable college calculus course by successfully passing the AP Examination. Some of the topics taught are properties of functions, limits, the derivative and applications of the derivative, techniques of integration, the definite integral and applications of the integral, and a small review of prerequisite math topics which include advanced algebra techniques and trigonometry. A graphing calculator is required for this course. There is a strong expectation that students will take the AP examination in May. **Students cannot transfer from this course to Honors Business Calculus after the fourth week of the first semester.** Students can only take either AP AB Calculus or AP BC Calculus for credit. The courses are not sequential.

<b>ADVANCED PLACEMENT (BC) CALCULUS</b>	<b>3510 - Full Year</b>	Gr. 11, 12	Prerequisite: H Adv. Prec or <b>Screened</b>
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This course consists of a full academic year of work in theoretical calculus and related topics comparable to two semesters of college Calculus 1 and Calculus 2. The class is for those students who intend to place out of a comparable college calculus course(s) by successfully passing the AP Examination. Some of the topics taught include: vector valued functions, parametric equations, sequences and infinite series (topics not covered in AB), and limits, continuity, differential and integral (topics covered in AB). A graphing calculator is required for this course. There is a strong expectation that students will take the AP examination in May. **Students cannot transfer from this course to Honors Business Calculus after the fourth week of the first semester.** Students can only take either AP AB Calculus or AP BC Calculus for credit. The courses are not sequential.

<b>ADVANCED PLACEMENT STATISTICS</b>	<b>3530 – Full Year</b>	Gr 10, 11, 12	Prerequisite: H Algebra 2 or <b>Screened</b>
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This college level course introduces students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad conceptual themes: exploratory analysis of data, planning a study, anticipating patterns in advance (probability and simulation), and statistical inference. The course provides substantial background in statistical methods necessary for a variety of college majors and follows the outline of topics and instructional emphases prescribed by the College Board website. **Students cannot transfer from this course to semester Statistics after the fourth week of the first semester. A graphing calculator is required for this course.** There is a strong expectation that students will take the AP examination in May.

<b>HONORS LINEAR ALGEBRA</b>	<b>3540 – Full Year</b>	Gr. 12	Co-requisite: AP Calculus AB or BC
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This college level course is designed to prepare students for subsequent coursework in multivariable calculus and modern algebra. Linear algebra is used in abstract algebra, functional analysis and has extensive applications to both natural sciences and social sciences. The course covers systems of equations, vector spaces, linear transformations and matrix representations, determinants, eigenvalues, and a variety of applications. Although this course is sequenced after our AP Calculus AB or BC courses, there is no guarantee of colleges awarding credit for successful completion. It is recommended that students construct a portfolio of their work during this course for the purpose of helping colleges determine appropriate college mathematics placement.

<b>STATISTICS</b>	<b>3541 – Sem. 1</b>	Gr. 12	Prerequisite: Algebra 2
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Students learn statistical concepts and interpretation and communication of the results of statistical analyses. Using a graphics calculator, students apply and interpret results of statistical techniques, including exploratory and inferential methods such as variability, distribution, association, causation, sampling, experimentation, confidence and significance. **A graphing calculator is required for this course.**

<b>FINITE MATHEMATICS</b>	<b>3552 – Sem. 2</b>	Gr. 12	Prerequisite: Algebra 2
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Students are exposed to the conceptual themes of management science, coding information and social choice/decision making. Specific topics include networks, linear programming, planning and scheduling, bar codes, cryptography, voting, polling and apportionment.

<b>PERSONAL FINANCE</b>	<b>3572 – Sem. 2</b>	Gr. 11, 12	Prerequisite: None
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This course prepares students to make effective consumer decisions using basic math skills. Students use technology, both calculators and computers, to explore and study personal applications of money management, such as taxes, checking/savings accounts, and the purchasing of both a car and home. This course may be taken for mathematics or elective credit.

<b>BUSINESS MATHEMATICS</b>	<b>3581 – Sem. 1</b>	Gr. 11, 12	Prerequisite: None
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This course prepares students using a mathematical foundation for the study of business. Students use technology, both calculators and computers, to explore financial applications of a business such as data analysis, inventory, management, sales and marketing. This course may be taken for mathematics or elective credit.

<b>HONORS COMPUTATIONAL MATHEMATICS</b>	<b>3603 – Sem.</b>	Gr. 11, 12	Prerequisite: H Precalculus
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This class will explore techniques of mathematical problem solving using the computational power of computers. The focus will be on math, but utilizing computers will require students to learn the fundamentals of programming. The semester will start with a set of introductory lessons in the Python programming language. Python is a higher level language that is easily understood by beginners. **NO PREVIOUS PROGRAMMING EXPERIENCE IS NECESSARY!** After the Python introduction, the course will focus on problems requiring mathematical insight while also needing the repetitive power of computing. Completion of Honors Precalculus or Honors Advanced Precalculus is required to enroll in this course. **\*\*Beginning with the class of 2021, this course may fulfill the required (1) semester of Practical Arts Credit.**

<b>HONORS HISTORY OF MATHEMATICS</b>	<b>3613 – Sem.</b>	Gr. 11, 12	Prerequisite: H Precalculus
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This course is designed to highlight how mathematical discoveries and their implementation have allowed for the development of societies, beginning with mathematics used by ancient civilizations and ending with current research in the field. Students will investigate the role of mathematics throughout history with a focus upon proofs of famous theorems including, but not limited to: the Pythagorean Theorem, Infinitude of Primes, Solution of the Cubic, and the Binomial Theorem.

<b>HONORS INTRODUCTION TO COMPUTER PROGRAMMING 1</b>	<b>3718– Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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This course is designed to be a first course in computer science using the Python programming language. Programming concepts include syntax, variables and data types, operators, decision statements, and loops. These topics are explored through classroom activities and computer lab sessions. Offered for elective credit only.

<b>HONORS INTRODUCTION TO COMPUTER PROGRAMMING 2</b>	<b>3728 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: See below*
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Good programming techniques continue to be taught as students write and debug code using Python. Concepts include subprograms, arrays, sorting and searching techniques, and sequential and random access files. Offered for elective credit only. **\*Prerequisite (H) Introduction to Computer Programming 1, or BIT Enrichment with teacher recommendation.**

<b>ADVANCED PLACEMENT COMPUTER SCIENCE A</b>	<b>3850 – Full Year</b>	Gr. 11, 12	Prerequisite: <b>Screened</b>
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In this college level course, students use the JAVA computer language while exploring assignment statements, conditional execution, loops, functions, procedures, arrays and files as well as more advanced computer science topics such as data structures, recursion, and program correctness and verification. In addition to the lab time provided during the class period, students should plan to spend a minimum of two hours per week outside of class in the computer lab. This course prepares students for the AP exam in computer science. There is a strong expectation that students will take the AP examination in May.

## SCIENCE

Mt. Lebanon School District requires six (6) graduation credits in science. The department provides core courses in the physical, life and geosciences as well as courses for advanced study and specialization. Science credits must be distributed as follows: 2 credits in the Physical Sciences, 2 credits in the Life Sciences and 2 credits in the Geosciences. It is recommended that students study the core subjects prior to or in addition to electing specialized courses.

Suggested Sequence of Core Science Courses:

9th	10th	11th	12th
Academic Chemistry Honors Chemistry	Academic Biology Honors Biology	Academic Environmental Geoscience AP Environmental Geoscience	Physics, Chemistry, Life Science or Geoscience course at the AP, Honors, or Academic level.

**NOTE: Students may NOT request a transfer from Honors Chemistry to Chemistry, Honors Biology to Biology, AP Environmental Geoscience to Environmental Geoscience, Honors Physics to Physics, or from AP Physics 1 to Honors Physics or vice versa after the first four (4) weeks of the first semester. These courses do not follow the same curriculum and pacing. Students may request a transfer from Honors Chemistry to Chemistry, Honors Biology to Biology, AP Environmental Geoscience to Environmental Geoscience, or Honors Physics to Physics at the end of the first semester. Students may NOT request a transfer from AP Physics 1 to Honors Physics at the end of the first semester because the curriculum diverges too much by that point. Additionally, students may NOT request to move from Academic level courses to Honors or AP levels or from Honors to AP level courses after the first semester.**

<b>CHEMISTRY</b>	<b>4210</b> – Full Year 6 periods/week	Gr. 9, 10, 11, 12	Prerequisite: None
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Students in this course will learn that matter can be described by simple identifiable particles that undergo combination and change with recognizable and predictable properties. The driving force, speed, and manner in which those combinations and changes occur are investigated from a perspective that permits students to appreciate things in the world around them. Topics include matter, atomic structure and bonding; molecular structure and properties; phase changes and behavior of gases; stoichiometry, solution chemistry, and acids and bases. This course differs from Honors Chemistry in depth, pace and the level of mathematical analysis required. **Students cannot transfer from Chemistry to Honors Chemistry after the first four weeks of the first semester.** This course qualifies for Physical Science graduation credit.

<b>HONORS CHEMISTRY</b>	<b>4220</b> – Full Year 6 periods/week	Gr. 9, 10, 11, 12	Prerequisite: None <b>Screened</b>
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Designed to provide the science or technology-oriented student with a rigorous approach in the study of chemistry, this course covers the topics of atomic structure; the periodic table and properties of the elements; chemical bonding, formulas, equations and reactions; kinetics; stoichiometry, and acid-base chemistry. Students who intend to take the SAT Chemistry Subject Test should take this course. **Students cannot transfer from Honors Chemistry to Chemistry after the first four weeks of the first semester.** However, students may request a transfer from Honors Chemistry to Chemistry at the end of the first semester. This course qualifies for Physical Science graduation credit.

<b>HONORS ORGANIC CHEMISTRY</b>	<b>4230</b> – Full Year 5 periods/week	Gr. 11, 12	Prerequisite(s): Chemistry & Biology Corequisite: See below* <b>Screened</b>
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This course will introduce students to organic chemistry, or the chemistry of carbon containing compounds. It is primarily for students wishing to pursue a science-based undergraduate major in the fields of chemistry, biology, or the health sciences, or for students seeking a non-math-based science course. Topics include structure and stability of open-chain and aromatic carbon compounds, nomenclature, stereochemistry, reaction types and mechanisms, and organic synthesis. \*Prerequisite is successful completion of academic or honors chemistry and academic or honors biology. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. This course qualifies for Physical Science graduation credit. A summer assignment is required to begin this course.

<b>ADVANCED PLACEMENT CHEMISTRY</b>	<b>4240</b> – Full Year 6 periods/week	Gr. 10, 11, 12	Prerequisite: (H) Chemistry Corequisite: See below* <b>Screened</b>
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Taught at the college freshman level, this course emphasizes chemistry as an intellectual activity and provides the rigorous training needed for advanced college courses in chemistry [or related fields] as well as success on the A.P. Chemistry test. In this course, the student should attain a depth of understanding of the fundamentals of chemistry and a reasonable competence in dealing with chemical problems. This course should contribute to the development of the student's ability to think clearly and to express their ideas, orally and in writing, with clarity and logic. This course differs qualitatively from the honors chemistry course with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations, the mathematical formulation of principles, and the kind of laboratory work done. Quantitative differences appear in the number of topics treated, the time spent on the course by the student, and the nature and variety of the experiments done in the laboratory. A summer assignment is required to begin this course. This course qualifies for Physical Science graduation credit. \*Tenth grade students must be enrolled in, or have already taken Honors Biology or Biology. Eleventh grade students must be enrolled in, or have already taken AP Environmental Geoscience or Environmental Geoscience. There is a strong expectation that students will take the AP examination in May.

<b>PHYSICS</b>	<b>4305</b> – Full Year 5 periods/week	Gr. 9, 10, 11, 12	Prerequisite: None Corequisite: See below* <b>Screened</b>
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This course is designed for everyone including future non-science majors. It is a highly conceptual course focusing on physics principles that are relevant to everyday life. In this course, students will understand how physics explains the world around them and how to make decisions based on this scientific knowledge. The emphasis of the course is not on complex mathematical analysis or detailed problem-solving techniques. Students will study topics in the following major areas: energy and nuclear physics, gravity and force, electricity and magnetism, waves and music, and light. \*Ninth grade students must be enrolled in or, or have already taken Chemistry or Honors Chemistry. Tenth grade students must be enrolled in or, or have already taken Biology or Honors Biology. Eleventh grade students must be enrolled in or, or have already taken Environmental Geoscience or AP Environmental Geoscience. Students cannot transfer from Physics to Honors Physics after the first four weeks of the first semester. This course qualifies for Physical Science graduation credit.

<b>HONORS PHYSICS</b>	<b>4320</b> – Full Year 5 periods/week	Gr. 9, 10, 11, 12	Prerequisite: None Corequisite: "See below" * <b>Screened</b>
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What was Isaac Newton thinking when that apple hit him on the head? Was he thinking that the motion of falling objects could be explained and even predicted? Probably not, but that's what you'll be thinking in "Models of Motion and Forces." And falling objects will be just the beginning. You'll take part in activities that are designed to help you explain why some things (like planets and planes) move, while other things (like bridges and buildings) do not. As you progress through this course, you will construct a deep understanding of the branch of physics known as "mechanics." The use of mathematical "models" will allow you to observe and understand the behavior of nearly any object in the universe. These models can then be applied to more advanced topics in physics, such as those seen in engineering, or even to an understanding of the origins of calculus. \*Current or prior placement in an Algebra II course. Note: 9<sup>th</sup> grade students can only elect this course if concurrently enrolled in Honors Chemistry (4220) and Honors Algebra 2 (3360). Tenth grade students must be enrolled in or, or have already taken Biology or Honors Biology. Eleventh grade students must be enrolled in or, or have already taken Environmental Geoscience or AP Environmental Geoscience. Students cannot transfer from Honors Physics to Physics or AP Physics 1 after the first four weeks of the first semester. However, students may request a transfer from Honors Physics to Physics at the end of the first semester.

<b>ADVANCED PLACEMENT PHYSICS C: Mechanics</b>	<b>4330</b> – Full Year 5 periods/week	Gr. 11, 12	Prerequisite: none Co-requisite: See below* <b>Screened</b>
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Students enrolled in this course will feel like college freshmen as they explore the topics of motion, forces, energy, momentum, circular motion, vibrations, and gravity. Students will experience science in the same way Isaac Newton did as they design and perform experiments that answer some of the classic questions in the study of physics. Along the way, students act like scientists and engineers as they apply the scientific method to technology-infused laboratory activities. This course also provides a true bridge between science and math as students learn and apply calculus concepts when analyzing physics principles. Although the primary purpose of the course is to prepare students for the AP Examination, successful completion of this course will provide students with a solid foundation for further studies in science. Any student thinking of a career in the field of science or engineering would benefit from the knowledge gained in this course. \*Co-requisite: Honors Advanced Precalculus (3430) or a calculus course. Eleventh grade students must be enrolled in, or have already taken, Environmental Geoscience or AP Environmental Geoscience. This course qualifies for Physical Science graduation credit.



<b>ADVANCED PLACEMENT PHYSICS C: Electricity &amp; Magnetism</b>	<b>4340</b> – Full Year 5 periods/ week	Gr. 12	Prerequisite: none Corequisite See below* <b>Screened</b>
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Look around the room that you're sitting in. Think of all the devices in the room that operate by using electricity. What actually makes these devices "work"? What's going on inside your computer, television, cell phone, or iPad? In AP E&M you'll perform college-level lab activities designed to help you discover the fundamental laws of the electromagnetic world. This course provides a true bridge between science and math as students apply calculus concepts when analyzing physics principles. Although the primary purpose of the course is to prepare students for the AP Examination, successful completion of this course will provide students with a solid foundation for further studies in science. Any student thinking of a career in the field of science, engineering, or computer design would benefit from the knowledge gained in this course. \*Co-requisite: Prior enrollment in Honors Physics or concurrent or prior enrollment in AP Physics C: Mechanics. Concurrent or prior enrollment in a calculus course is also necessary. This course qualifies for Physical Science graduation credit.

<b>ADVANCED PLACEMENT PHYSICS 1</b>	<b>4350</b> – Full Year 5 periods/ week	Gr. 9, 10, 11, 12	Prerequisite: non Corequisite: See below* <b>Screened</b>
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This course is equivalent to a first-semester college course in algebra-based physics. The physics content of the course is based on foundational "big ideas" in physics. These "big ideas" are found in ten major units of study: kinematics, dynamics, circular motion and universal law of gravitation, simple harmonic motion, impulse and momentum, work and energy, rotational motion, electrostatics, DC circuits, and mechanical waves and sound. Through inquiry-based learning, students will develop critical thinking and problem-solving skills. This course is designed to prepare students to take the AP Physics 1 Examination. Co-requisite: Honors Algebra 2 or higher-level math course. In addition, ninth grade students must be enrolled in, or have already taken Chemistry or Honors Chemistry. Tenth grade students must be enrolled in, or have already taken Biology or Honors Biology. Eleventh grade students must be enrolled in, or have already taken Environmental Geoscience or AP Environmental Geoscience. Students may **NOT** request a transfer from AP Physics 1 to Honors Physics or vice versa after the first four (4) weeks of the first semester. Students are not permitted to move from AP Physics 1 to Physics or vice versa. A summer assignment is required.

<b>ADVANCED PLACEMENT PHYSICS 2</b>	<b>4360</b> – F <b>4360</b> –Full Year 5 period/week	Gr. 10, 11, 12	Prerequisites: AP Physics 1 or AP Physics C: Mechanics Co-requisite: See below* <b>Screened</b>
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This course is equivalent to a second-semester college course in algebra-based physics. The physics content of the course is based on foundational "big ideas" in physics. These "big ideas" are found in five major units of study: thermodynamics, fluid statics & dynamics, electricity & magnetism (electrostatics, DC and RC circuits, magnetism and electromagnetic induction), geometric & physical optics, and modern physics (quantum, atomic and physics). Through inquiry-based learning, students will develop critical thinking and problem-solving skills. This course is designed to prepare students to take the AP Physics 2 Examination. Prerequisites: AP Physics 1 or AP Physics C: Mechanics Corequisite: Honors Algebra 2 or higher-level math course. In addition, tenth grade students must be enrolled in, or have already taken Biology or Honors Biology. Eleventh grade students must be enrolled in, or have already taken Environmental Geoscience or AP Environmental Geoscience. **A summer assignment is required.**

<b>HONORS SCIENCE TECHNOLOGY ENGINEERING AND MATHEMATICS EXPLORATION (STEM-X)</b>	<b>4513</b> – Sem. 5 periods/week	Gr. 9, 10, 11, 12	Prerequisite: None Corequisite: See below <b>Screened</b>
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Have you ever sat in class and wished that you had the ability to direct what you were learning? Do you want to take your skills and abilities and apply them to a topic you are genuinely interested in and excited about? You now have the ability to explore STEM topics in depth by performing and presenting a research project. STEM-X will allow you to practice collaborative design, decision making, critical thinking, resource management, communication, and creative problem solving. Explore STEM topics through research and collaboration! Ninth grade students must be enrolled in, or have already taken Honors Chemistry or Chemistry. Tenth grade students must be enrolled in, or have already taken Honors Biology or Biology. Eleventh grade students must be enrolled in, or have already taken AP Environmental Geoscience or Environmental Geoscience.

<b>BIOLOGY</b>	<b>4110</b> – Full Year 6 periods/week	Gr. 10, 11, 12	Prerequisite: Chemistry
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In this course students will explore the nature of science through experimental design. This class is geared towards preparing students for proficiency on the Pennsylvania Biology Keystone Exam. The following questions will be addressed: How do matter and energy cycle and flow through living things and their environment? How do organisms transport matter and energy to maintain homeostasis? How do organisms receive and respond to stimuli? How do organisms maintain continuity of life? How has evolution led to the diversity of living things? How do living things interact with each other and their environment? How do human population growth and consumption lead to ecological imbalance? **Students cannot transfer from Biology to Honors Biology after the first four weeks of the first semester.** This course qualifies for Life Science graduation credit.

<b>HONORS BIOLOGY</b>	<b>4120</b> – Full Year 6 periods/week	Gr. 10, 11, 12	Prerequisite: Chemistry <b>Screened</b>
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In this course students will investigate biological processes through rigorous laboratory investigations, case studies, outside readings, writing, classroom discussions, and independent research. The units covered in Honors Biology are taught in the same sequence as those in Academic Biology, but they are supplemented with additional content. There is a heavy emphasis on medical applications, incorporation of college-level terminology, generating appropriate graphs using Excel, and application of statistics to analyze data. The successful Honors Biology student is self-motivated, has a strong grasp of chemistry and mathematics, and is able to articulate scientific concepts through structured writing. Students who intend to later take the SAT Biology Subject Test and/or the Advanced Placement Biology and/or the Honors Anatomy electives during junior or senior year should take this course. **Students cannot transfer from Honors Biology to Biology after the first four weeks of the first semester.** However, students may request a transfer from Honors Biology to Biology at the end of the first semester. This course qualifies for Life Science graduation credit.

<b>WILDLIFE BIOLOGY</b>	<b>4183</b> – Sem. 5 periods/week	Gr. 11, 12	Prerequisite: Chemistry & Biology Corequisite: See below*
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This course allows students to explore the nature of living things through Pennsylvania wildlife and the use of model systems. Students will experience hands-on learning and collaboration while directly interacting with living organisms and their habitats. An emphasis will be placed on local wildlife and environmental issues. The class will utilize case studies, research, data collection, and journals while modeling a scientific community. Career opportunities will be highlighted in biology and environmental science, including presentations by experts in the field. Topics in this course include, but are not limited to, ecology, botany, entomology, zoology, and survival in the wild. Students taking this course should have taken and passed both semesters of Biology. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. This course qualifies for Life Science or Environmental Geoscience graduation credit.

<b>FORENSIC SCIENCE</b>	<b>4423</b> – Sem. 5 periods/week	Gr. 11, 12	Prerequisites: Chemistry, Biology Corequisite: See below*
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Forensic science is the study and application of science as it pertains to law. Forensic scientists work in crime labs, analyzing evidence collected at crime scenes. Forensic science is multidisciplinary. Throughout this course, students will draw on topics in chemistry, physics, biology, anatomy & physiology, mathematics, statistics, psychology, sociology and law. This is an inquiry-based course that uses scientific methods to solve crimes or other mysteries. In addition to deepening their understanding of scientific concepts, this course will sharpen students' critical thinking and problem-solving skills. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. This course qualifies for Life Science or Physical Science graduation credit.

<b>HONORS HUMAN ANATOMY &amp; PHYSIOLOGY</b>	<b>4133</b> – Sem. 5 periods/week	Gr. 11, 12	Prerequisites: Chemistry, Biology Co-requisite: See below* <b>Screened</b>
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Throughout the 18 weeks, students will investigate in great detail the structures, functions, and systems of the human body. Human tissue types as well as skeletal, muscular, digestive, cardiovascular, and respiratory systems will be studied through lectures, labs, and dissections. To enroll in this course, students should be comfortable with dissecting and working with preserved specimens. This honors level course will help prepare students for a career in a health-related field. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. This course qualifies for Life Science graduation credit.

<b>ADVANCED PLACEMENT BIOLOGY</b>	<b>4150</b> – Full Year 6 periods/week	Gr. 11, 12	Prerequisites: Chemistry, (H) Biology <b>Screened</b>
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In this rigorous college level course, living organisms are studied from the cellular, genetic, organismal, and ecological perspectives. Evolution by natural selection is one of the central ideas that ties together much of the content in the course. Topics such as gene regulation and cell communication are explored and stressed in an attempt to more deeply understand the biology of living things at a cellular level. Students will regularly work with biological models and data sets to strengthen content learned in class. Several laboratories will allow the students to pose their own questions and design experiments related to their questions. Students will apply statistical tests to best analyze data as well. As in Honors Biology, a successful AP Biology student will have a strong grasp of chemistry and mathematics, is highly motivated, and can communicate well through analytical writing. A primary purpose of the course is to prepare students for the Advanced Placement Examination; however, any college bound student, especially a student planning a college major in the sciences would benefit from this course. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. AP Environmental Geoscience is preferred as the material serves as valuable knowledge for AP Biology. This course qualifies for Life Science graduation credit. A summer assignment is required.

<b>ENVIRONMENTAL GEOSCIENCE</b>	<b>4400</b> – Full Year 6 periods/Week	Gr. 11, 12	Prerequisites: Chemistry, Biology
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This capstone course draws upon students' knowledge of the physical and life sciences while exposing them to the concepts and challenges of Earth and environmental science. Students investigate the planet's inherent properties and processes, natural hazards, natural resource management, environmental pollution/health, and global change/sustainability. The course addresses how our planet and the solar system formed and how each has changed over time; how interactions among Earth's systems (geosphere, atmosphere, hydrosphere, and biosphere) impact the environment and why human interactions with these systems are important; how changes in the way people interact with Earth's systems might impact the future. It is expected that students enrolling in Environmental Geoscience have successfully completed both semesters of both chemistry and biology. **Students may not transfer from Environmental Geoscience to Environmental Geoscience (AP) after the first four weeks of the first semester.** This course qualifies for Geoscience graduation credit.

<b>ENVIRONMENTAL GEOSCIENCE: [ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE]</b>	<b>4410</b> – Full Year 6 periods/week	Gr.11	Prerequisites: Chemistry, Biology <b>Screened</b>
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This AP course will draw upon students' knowledge of the physical and life sciences while exposing them to the concepts and challenges of environmental science. Students will investigate geological hazards and resources, environmental pollution and health, and global change and sustainability via case studies, outside readings and writings, laboratory investigations, independent thinking, and governmental policy. Students will also be engaged in independent research projects throughout the year. The following questions will be addressed: How do the interactions of the Earth's systems (geosphere, hydrosphere, atmosphere and biosphere) impact the environment and why are human interactions with these systems important? How might people, the environment and all the Earth's systems interact in the future? Students taking this course will be prepared to take the AP examination in Environmental Science. A summer assignment is required. **Students cannot transfer from Environmental Geoscience (AP) to Environmental Geoscience after the first four weeks of the first semester.** However, students may request a transfer from Environmental Geoscience (AP) to Environmental Geoscience at the end of the first semester. This course qualifies for Geoscience graduation credit.

<b>ASTRONOMY</b>	<b>4053</b> – Sem. 5 pds/week	Gr. 11,12	Prerequisite: Environmental Geoscience
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This course provides students with the opportunity to study the oldest formal science. This astronomy course is broken up into three major parts: Cosmology, Astrophysics, and Exploration. Cosmology is the study of the origins, fate, and overall structure of the universe. In this unit, students ponder some of the deepest questions that humanity faces using scientific evidence. What is our place in the universe? Astrophysics applies the laws of physics and chemistry to explain the evolution of stars, planets, and galaxies. In this unit, students will research some of the most fascinating objects in the universe such as black holes and neutron stars as we strive to answer the question, "How does the universe work?" Throughout the exploration unit, students learn to understand what they are looking at when they observe the night sky. They are challenged to consider what should be explored next and how it will be done. This course provides students with the opportunity to observe planets and other celestial objects using the district's telescope. Students must be, or have already taken Environmental Geoscience or AP Environmental Geoscience to be enrolled in this course. This course qualifies for geoscience or physical science graduation credit.

## WORLD LANGUAGES

Although Mt. Lebanon School District does not require World Language credits for graduation, it is recommended that students who study at least three (3) years of the same language. Many colleges and universities require a World Language for admission, and many prefer to see students continue through the advanced courses to complete the sequence of language study offered by the school. The district does require 14 elective credits, four of which must be in the Arts or Humanities. World Language courses above level 2 qualify in the Arts/Humanities category.

### Honors/Academic Level 4 French, German, Spanish

Students will go through the screening process to be approved for enrollment in the level 4 Honors course. Students who are taking this course for honors credit or for academic credit are in the same classroom. Students who are taking this course for honors credit are required to do some different or additional assignments or parts of assessments throughout the year and are also held to a higher standard of grading than students who are taking the course for academic credit.

Students may not request a change from an honors 4 World Language course to an academic level 4 World Language course after the first nine weeks.

### Honors AP Level 5 French, German, Spanish

Students will go through the screening process to be approved for enrollment in the 5AP course. Students who are taking this course for AP credit or for honors credit are in the same classroom. Students who are taking this course for AP credit are required to do some different or additional assignments or parts of assessments throughout the year and are also held to a higher standard of grading than students who are taking the course for honors credit.

Students may not request a change from an Advanced Placement 5 World Language course to an Honors level 5 World Language course after the first nine weeks.

<b>FRENCH 1</b>	<b>5210</b> - Full Year	Gr. 9, 10, 11, 12	Prerequisite: None
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Students learn to communicate in a variety of practical situations by acquiring the necessary vocabulary and grammatical structures to function in daily activities. The course stresses speaking and listening skills with accompanying practice in writing and reading. Audio and video segments are used to provide students with the listening practice in real-world settings. In addition, students are introduced to cultures of the French-speaking world.

<b>FRENCH 2</b>	<b>5220</b> - Full Year	Gr. 9, 10, 11, 12	Prerequisite: French 1
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French 2 builds upon skills learned in French 1. This course stresses the acquisition of vocabulary in order to communicate on topics such as sports, leisure, and foods. Students will learn to communicate about past events as well. Video segments provide an ongoing, year-long story.

<b>FRENCH 3</b>	<b>5230</b> - Full Year	Gr. 10, 11, 12	Prerequisite: French 2
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Students will expand their ability to communicate orally and in writing in a culturally appropriate manner about a variety of topics. They learn more complex language and structures. Students read longer passages and hear more lengthy conversations in the target language. An individual oral proficiency assessment is administered in the final month of the course.

<b>FRENCH 4</b>	<b>5240</b> - Full Year	Gr. 11, 12	Prerequisite: French 3
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<b>HONORS FRENCH 4</b>	<b>5250</b> - Full Year	Gr. 11, 12	Prerequisite: French 3 <b>Screened</b>
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Students refine their proficiency by using a full range of language structures and by developing a broad vocabulary base. They receive increased practice in composition based on class discussions and readings. Students in the honors level course must demonstrate higher levels of proficiency in all language skills.

<b>HONORS FRENCH 5</b>	<b>5260</b> - Full Year	Gr. 12	Prerequisite: Fr 4 or H Fr 4 <b>Screened</b>
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<b>ADVANCED PLACEMENT FRENCH 5</b>	<b>5270</b> - Full Year	Gr. 12	Prerequisite: H Fr 4 <b>Screened</b>
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This course is designed to prepare students to take the French Language AP examination, and to promote higher level language skills with authentic texts, and listening/speaking skills with a variety of audio and video sources. Writing skills are improved through frequent compositions and advanced grammar study. Students in the AP course must demonstrate higher levels of proficiency in all areas of skill development. **There is a strong expectation that students will take the AP examination in May.**

<b>GERMAN 1</b>	<b>5310</b> - Full Year	Gr. 9, 10, 11, 12	Prerequisite: None
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The first level German course emphasizes the four basic language skills of listening, speaking, reading and writing, with special emphasis on culture as experienced in the daily lives of young people. Fundamental German vocabulary and grammatical structures are presented in a variety of real-world situations. Through instruction which utilizes authentic multimedia, students will gain competency in basic everyday situations. Some examples of cultural topics include Grimm's Fairy tales, Karneval, and Nikolaus.

<b>GERMAN 2</b>	<b>5320</b> - Full Year	Gr. 9, 10, 11, 12	Prerequisite: German 1
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Students practice German language skills in the cultural context of the lifestyles of their German peers. Students use a broad selection of materials such as podcasts, videos, posters, letters, stories, advertisements, etc. to build proficiency. Upon completion of German 2, students possess a strong understanding of basic grammar, vocabulary, and culture. Some examples of cultural topics include Advent calendars, New Year's traditions, and first day of school gifts for children.

<b>GERMAN 3</b>	<b>5330</b> - Full Year	Gr. 10, 11, 12	Prerequisite: German 2
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Students develop skills to enhance communication and comprehension. Vocabulary and grammar instruction are developed through thematic units tied to various important cities and landmarks. Students use German with increasing proficiency to discuss significant events, both current and historical. Some examples of cultural topics include Oktoberfest and the Berlin Wall. An individual oral proficiency assessment is administered in the final month of the course.

<b>GERMAN 4</b>	<b>5340</b> - Full Year	Gr. 11, 12	Prerequisite: German 3
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<b>HONORS GERMAN 4</b>	<b>5350</b> - Full Year	Gr. 11, 12	Prerequisite: German 3 <b>Screened</b>
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Students are introduced to more complex audio, video and print materials, such as podcasts, films, songs, and literary texts, all with the goal of obtaining higher levels of proficiency. Through continued study of German geography and history lead students to a better understanding of German cultural identity in the German-speaking world. Some examples of cultural topics include World War II and Reunification.

<b>HONORS GERMAN 5</b>	<b>5360</b> - Full Year	Gr. 12	Prerequisite: G 4 or H G 4 <b>Screened</b>
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<b>ADVANCED PLACEMENT GERMAN 5</b>	<b>5370</b> - Full Year	Gr. 12	Prerequisite: H German 4 <b>Screened</b>
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This course emphasizes active communication by preparing students to use vocabulary, grammar, and syntax with a high degree of proficiency and accuracy. With a thematic approach, students will delve into interdisciplinary topics such as Science and Technology, Beauty and Aesthetics, Global Challenges, Families and Communities, Personal and Public Identities, and Contemporary Life. Students will comprehend newspaper/magazine articles, current fiction and nonfiction, websites, podcasts, and video using context clues instead of relying on a dictionary. Students will hone their skills to prepare for real-life situations and for the AP exam. Some examples of cultural topics include soccer, sustainability, and globalization. There is a strong expectation that students will take the AP examination in May.

<b>LATIN 1</b>	<b>5510</b> - Full Year	Gr. 9, 10, 11, 12	Prerequisite: None
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Students of Latin I will benefit from a clearer understanding of the English language through the study of Latin and Greek vocabulary. Students will practice their newly-acquired language skills by translating Latin stories and by composing Latin dialogues and narratives. The Internet-based activities of the curriculum promote an understanding of many interesting facts of Roman culture, including the use of Latin mottos, abbreviations, and terms still used today in law, science, medicine, and literature. The ancient city of Pompeii figures prominently in the Latin I curriculum and serves to enhance the Latin I students' knowledge of Roman society in the 1<sup>st</sup> century A.D. Major themes of the Latin I curriculum includes: daily life, Roman religion, archaeology, classical mythology, slavery, education, theater, spectator sports, and Roman architecture. Class enrollment is limited. Priority will be given to incoming sophomores and juniors. A lottery will be held to fill remaining seats.

<b>LATIN 2</b>	<b>5520</b> – Full Year	Gr. 10, 11, 12	Prerequisite: Latin 1
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Students will continue to sharpen their skills in Latin translation and composition and will add to their knowledge of Latin vocabulary and grammar. The study of Latin-based cognates will provide the opportunity for students to increase their “word power” in English. Roman life outside of Italy is explored through a study of the Roman period in Egypt and the conquest of Britain. Students will study the origins of modern medicine and will acquire a basic knowledge of Latin terminology relative to the human anatomy and pharmaceutical terms. Other themes to be explored via classroom and Internet-based learning include: the city of Alexandria, the art of glassmaking, pagan religions, the city of Bath, Latin curses and superstitions, travel and communication, and the Roman military.

<b>LATIN 3</b>	<b>5530</b> – Full Year	Gr. 11, 12	Prerequisite: Latin 2
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The Roman siege of Masada provides the back-drop for the Latin students' entrance into the third level. Stories of military might, architectural excellence, and imperial intrigue will lead students to a greater understanding of the Latin language. Students will learn more advanced grammatical constructions in order to handle the translation of both adapted and authentic text. Students will engage in Internet-based activities to increase their cultural awareness of the Roman world and in writing tasks where they will demonstrate their linguistic competencies. As in the previous two levels, students will receive additional support in their acquisition of cognates of Latin origin. Cultural themes of the Latin III curriculum include: Rome and Judaea, Roman engineering, Roman society, religion, and entertainment.

<b>HONORS LATIN 4</b>	<b>5550 – Full Year</b>	Gr. 12	Prerequisite: Latin 3 <b>Screened</b>
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Some of the greatest writers of Latin literature are featured in this honors-level course. Vergil, Ovid, Catullus, and Horace are but a few of the authors whose works will be examined. A variety of works in prose and poetry, literary devices and Latin meter, and the art and literature which these authors inspired in later centuries will be investigated. Students will have the opportunity to study additional Latin SAT subject test authors and sources of their choice throughout the year. Authentic ancient, medieval, and contemporary text in Latin SAT subject test will supplement the adapted selections of the Latin textbook.

<b>SPANISH 1</b>	<b>5610 – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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In this introduction to Spanish language and culture, students gain an active and flexible command of Spanish through personal involvement and understanding. The course emphasizes communication through authentic exchanges in Spanish and provides the necessary foundation for further study of the language.

<b>SPANISH 2</b>	<b>5620 – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: Spanish 1
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Through a thematic approach, students will continue their study of the Spanish language and culture, as they explore daily life in Spain and Latin America. The course emphasizes communication through authentic exchanges in Spanish and provides the necessary foundation for further study of the language.

<b>SPANISH 3</b>	<b>5630 – Full Year</b>	Gr. 10, 11, 12	Prerequisite: Spanish 2
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Students develop a functional communicative proficiency through age-relevant topics, a general insight into Spanish grammar, and development of a large vocabulary base. Through readings, students expand knowledge of history, customs, and culture of Hispanic countries. Students take an oral proficiency exam the last nine weeks of the course.

<b>SPANISH 4</b>	<b>5640 - Full Year</b>	Gr. 11, 12	Prerequisite: Spanish 3
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<b>HONORS SPANISH 4</b>	<b>5650 - Full Year</b>	Gr. 11, 12	Prerequisite: Spanish 3 <b>Screened</b>
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This course is designed for students to improve their reading, writing, listening, speaking and cultural competency skills within the context of Global Themes. Students will develop linguistic skills through the interpersonal, interpretive and presentational modes of communication.

<b>HONORS SPANISH 5</b>	<b>5660 - Full Year</b>	Gr. 12	Prerequisite: Spanish 4 or H Spanish 4
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<b>ADVANCED PLACEMENT SPANISH 5</b>	<b>5670 – Full Year</b>	Gr. 12	Prerequisite: H Spanish 4 <b>Screened</b>
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Through a thematic approach, students study modern day topics such as Global Challenges, and Spanish-speaking Minority Cultures in the U.S. This course provides opportunities for students to improve their spoken and written proficiency in a variety of situations, employing the interpersonal, interpretive and presentational modes of communication. Cultural competency is also a focus and is integrated into all aspects of this course. There is a summer assignment which provides a review of essential grammar points. Spanish 5 Honors and Spanish 5 AP may be combined if dictated by enrollment numbers. There is a strong expectation that students will take the AP examination in May.

## BUSINESS & INFORMATION TECHNOLOGY

This department offers courses for students interested in learning more about software applications and business theory for their own use, for employment, or for advanced preparation for college. Students planning to major in Business Administration in college should take as many courses listed below as their schedules permit.

<b>TECHNOLOGY &amp; MEDIA APPS</b>	<b>6093 – Sem.</b>	Gr. 9,10, 11, 12	Prerequisite: None
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This is a semester project-based course for high school students to introduce the Adobe Suite and advance their skills in Microsoft Office. Students will work through a simulation incorporating Dreamweaver, Photoshop and Prezio as well as advanced Word, Excel, Access and Publisher. Ultimately the goal of the course is to expand the student's software skills and enhance their school work.

<b>WEB PAGE DESIGN</b>	<b>6013 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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In this class, students will be given an introduction to the process of creating dynamic websites. Students will learn the process for analyzing and determining the basic necessities for a website, and the skills for designing and implementing a user-friendly site structure using HTML and basic CSS. Adobe DreamWeaver will be the central program utilized by students as they begin by creating simple one page sites and progress towards creating elaborate, multi-page sites with forms, graphics and sounds. This interactive and engaging class allows students to use their interests to drive their development process.

<b>WEB PAGE DESIGN 2</b>	<b>6023 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: Web Page Design or Teacher Approval
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Web Page Design 2 is a continuation of Web Page Design where students will expand on their website development skills in practical, real-world settings. Students will build upon the planning, design and implementation skills learned in Web Page Design as they focus on design elements involving layout, navigation, and interactivity using more advanced HTML and CSS to create more elaborate, in depth websites. Course projects will consist of several independent and/or small group projects as the primary emphasis during full-scale website development.

<b>(H) WEB PAGE DESIGN 2</b>	<b>6033 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: Web Page Design 2
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Honors Web Page Design 2 is a continuation of Web Page Design 2: This course is designed to introduce students to Adobe suite of Web-authoring applications. This Web design software lets students create dynamic, interactive Web pages containing text, images, hyperlinks, animation, sounds, video, and other elements. Teamwork, planning and collaborations with students as well as staff members will be expected. This course may only be taken for two (2) semesters of honors credit, after which students may return to the academic level of Web Page Design 2.

<b>HONORS FINANCIAL ACCOUNTING 1</b>	<b>6211 – Sem. 1</b>	Gr. 10, 11, 12	Prerequisite: Geometry or <b>Screened</b>
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Accounting is often referred to as the "language of business." If you are considering majoring or minoring in Business in college, this class is for you! Accounting is a required course for business students that can be difficult to master at the college level since it is taught at such a quick pace. We will cover the same content of a semester-long college course over the course of a year in a more relaxed manner. Students will also develop skills in spreadsheet software.

<b>HONORS FINANCIAL ACCOUNTING 2</b>	<b>6222 – Sem. 2</b>	Gr. 10, 11, 12	Prerequisite: Geometry or <b>Screened</b>
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Students will apply and expand on the concepts introduced in Financial Accounting 1, with a focus on understanding, interpreting, and using accounting information to make financial decisions. This second semester will complete the content contained in the college-level Accounting class required for Business degrees. It is highly recommended to take both semesters in the same year.

<b>FINANCE</b>	<b>6233 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Are you interested in the stock market? Do you want to understand what is meant by the time value of money? Do you want to know the difference between a debit card and a credit card? This course will introduce to you the basics of both corporate and personal finance. The crucial importance of developing sound financial literacy skills as well as understanding the current state of the economy makes this course one which benefits all students, but particularly those interested in pursuing a career in business.

<b>ENTREPRENEURSHIP</b>	<b>6343 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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Students learn the fundamentals of business and business ownership, including economics, accounting, marketing, and management. Students also will work on a semester-long project in which they select an idea for a business, create a business plan, engage in computer simulations and learn to analyze business problems. It is impossible to predict in our rapidly changing economy which employment or business opportunities may arise, so it is important for all students to understand entrepreneurial skills and entrepreneurship

<b>HONORS BUSINESS LAW</b>	<b>6353</b> – Sem. 2	Gr. 10, 11, 12	Prerequisite: None
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A knowledge of business law is useful for all students, whether or not they want to study business or law, as all students will ultimately become citizens, workers, and consumers in their communities and the greater global society. This course helps students to understand their legal rights and responsibilities in their personal lives, to understand how businesses are affected by statutes and regulations, and to understand how business law impacts commerce. Students also explore many important social and ethical issues. The course includes guest speakers, classroom dramatizations, video presentations, and a field trip to the Allegheny County Courthouse and Jail.

<b>INTRODUCTION TO BUSINESS</b>	<b>6413</b> - Semester	Gr. 9, 10, 11, 12	Prerequisite: None
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Are you considering studying business in college? Do you hope to start or run your own business? Do you want to be a more informed consumer and member of the global economy? If you answered yes to any of these questions, this introductory course is for you! Students will learn business basics and build skills needed to be successful in business through lessons, activities, guest speakers, and hands-on projects in five units: Business Career Readiness, Economics & Business Organization, Entrepreneurship & Small Business, Marketing & Advertising, and Accounting & Finance.

<b>ADVANCED PLACEMENT MACROECONOMICS</b>	<b>6500</b> - Semester	Gr. 11, 12	Prerequisite: Algebra 2
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The AP Macroeconomics course is a college-level course that introduces students to the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination. It also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. The semester-long course will be offered in both the first and second semesters. There is a strong expectation that students will take the AP exam in May.

<b>PERSONAL FINANCE</b>	<b>3572</b> – Sem. 2	Gr. 11, 12	Prerequisite: None
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This course prepares students to make effective consumer decisions using basic math skills. Students use technology, both calculators and computers, to explore and study personal applications of money management, such as taxes, checking/savings accounts, and the purchasing of both a car and home. This course may be taken for mathematics or elective credit.

<b>BUSINESS MATHEMATICS</b>	<b>3581</b> – Sem. 1	Gr. 11, 12	Prerequisite: None
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This course prepares students using a mathematical foundation for the study of business. Students use technology, both calculators and computers, to explore financial applications of a business such as data analysis, inventory, management, sales and marketing. This course may be taken for mathematics or elective credit.



## FAMILY AND CONSUMER SCIENCES

Mt. Lebanon School District requires four (4) credits of electives in Arts and/or Humanities. The courses in this department meet the Arts and/or Humanities elective graduation requirement.

<b>CONTEMPORARY LIFE MANAGEMENT</b>	<b>6503 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Students acquire the knowledge and skills to make decisions and manage personal resources to meet and balance their future personal, financial, family, work and community responsibilities. The “Baby Think it Over” parenting simulation is used as the foundation for studying children and families. Students will apply concepts and knowledge to a “real-life” simulation project.

<b>CHILD DEVELOPMENT 1</b>	<b>6513 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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This course is beneficial to students who are considering careers involving children, those currently providing care for children, or those considering parenthood in the future. Students learn theories and principles of physical, social, emotional, intellectual and moral development from birth through age four. An authentic performance task using "Baby Think It Over" provides an opportunity for students to participate in a parenting simulation. It is recommended, though not required, that Child Development 2 be taken no more than one year after completion of this course.

<b>CHILD DEVELOPMENT 2 (The Preschool Lab)</b>	<b>6522 – Sem. 2</b>	Gr. 9, 10, 11, 12	Prerequisite: CD 1 & Teacher Approval
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This course is extremely beneficial for any student planning a career in fields such as teaching, psychology, childcare, nursing, medicine, social work or family studies. There is a 10 week on-site preschool for three and four year old children. Students will apply the theory, learned in Child Development 1. Students will plan and present all activities. Observation, guidance and communication skills are put into practice. This course is repeatable for credit.

<b>FASHION ARTS</b>	<b>6533 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Students interested in a career in the fashion industry or who desire to learn the skill of sewing will benefit from this class. This introduction to basic clothing construction includes pattern and fabric selection, fitting and the use of equipment. Students will complete a minimum of two projects including a home fashion sewing project. Additional projects may be completed as time permits. This course is repeatable for credit.

<b>ADVANCED FASHION ARTS</b>	<b>6543 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: Fashion Arts & Teacher Approval
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In level 2 students will learn more advanced sewing skills and apply them to the construction of a skirt, top, and home fashion projects, Levels 3 and 4 will give students the opportunity to learn about fabrics, color analysis, style and many aspects relating to a career in the fashion industry. Students will learn additional advanced sewing techniques and construct a dress. This course is repeatable for credit.

<b>FOOD &amp; NUTRITION</b>	<b>6551 – Sem. 1</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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This is a course for the student who wants to learn how to choose and prepare food for a healthy diet. Students participate in labs that focus on the food groups of the Food Pyramid. These labs cover quick breads, yeast bread, pasta, rice, fruits and vegetables, meat, poultry, eggs, dairy products and desserts. Kitchen safety, food safety and proper use of kitchen equipment are emphasized.

<b>FOOD FOR TODAY</b>	<b>6562 – Sem. 2</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Students learn about contemporary food issues through classroom theory and cooking labs. Topics include heart-healthy diets, sports nutrition, weight control, vegetarian diets, convenience foods, labor saving appliances, eating out nutritiously, budgeting, and dining etiquette.

<b>FOOD FOR TOMORROW</b>	<b>6573 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: Food and Nutrition or Food for Today
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Interested in different cultures? Enjoy trying new foods? Like learning how food affects your daily life and the environment? Food for tomorrow allows students to explore the role food plays in the political, economical, environmental, cultural, and religious aspects of our everyday lives. This course will allow students to study food systems by exploring agriculture, sustainability, international cultures and cuisines. Students will explore international cuisines and customs while preparing various ethnic meals in weekly food labs as well as examining career options in food science, technology and service. Students taking this course should have taken and passed Food and Nutrition or Food for Today with a minimum of a “C”.

<b>INTERIOR DESIGN AND HOUSING</b>	<b>6583 – Sem. (5 day) 6593 – Sem. (4 day)</b>	Gr. 9, 10, 11, 12 Gr. 11, 12	Prerequisite: None
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This four or five day elective is structured to encourage a broad understanding of interior design and housing. Students will learn and apply the elements and principles of design with a hands-on room design project. A portfolio and style file of personal preferences in housing and design will be created. Speakers and a fieldtrip are incorporated to provide authentic experiences.

## TECHNOLOGY EDUCATION

Mt. Lebanon School District requires four (4) credits of electives in Arts and/or Humanities. The courses in the Technology Education Department meet the Arts and/or Humanities elective graduation requirement.

<b>CAD FOR ARCHITECTURE 1</b>	<b>6611 – Sem. 1</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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CAD for Architecture 1 focuses on the application of 3D Design software for residential architectural design. Students taking this course will use Computer Aided Drafting (CAD) software to create digital floor plans, room layouts, and 3D renders of residential architectural designs. Students will also learn about architectural design concepts including the placement of rooms in a floor plan, traffic flow in a living space and square footage for various room types. This is a good course for students who are interested in architectural and related fields. This course qualifies for a Practical Arts/Technology and STEM Academy graduation credit.

<b>HONORS CAD FOR ARCHITECTURE 2</b>	<b>6612 – Sem. 2</b>	Gr. 9, 10, 11, 12	Prerequisite: CAD for Architecture 1
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Honors CAD for Architecture 2 continues the study of 3D Design software for architectural design. Students will expand their skill set by further studying architectural design concepts such as electrical blueprints, landscaping, and the design and layout of other types of spaces such as offices and other commercial structures. This course qualifies for a Practical Arts/Technology and STEM Academy graduation credit.

<b>CAD FOR ENGINEERING 1</b>	<b>6631 – Sem. 1</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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CAD for Engineering 1 focuses on the application of 3D Design software for engineering design and manufacturing. Students taking this course will use 3D Computer Aided Drafting (CAD) software to create digital representations of real objects, combine multiple models together to create moving assemblies, and prepare basic technical drawings that provide measurements of the objects. This is a good course for students who are interested in engineering, manufacturing and related fields. This course qualifies for a Practical Arts/Technology and STEM Academy graduation credit.

<b>HONORS CAD FOR ENGINEERING 2</b>	<b>6632 – Sem. 2</b>	Gr. 10, 11, 12	Prerequisite: A-Draw or E-Draw
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Honors CAD for Engineering 2 continues the study of 3D Design software for engineering design and manufacturing. Students will continue to expand their knowledge of the CAD software by using more advanced features, and introducing a more professional level of detail in design documentation and technical drawings. This course qualifies for a Practical Arts/Technology and STEM Academy graduation credit.

<b>CISCO HP IT ESSENTIALS 1 (Computer Hardware and Software)</b>	<b>6651 – Sem. 1</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Do you want to know more about the inner-workings of the computers you use every day? Do you dream of building your own gaming PC? In this course, students will learn about a computer's various internal and external components, including their purpose, how to select the appropriate parts for their build & budget. As a major component of the course, students will work together to build a PC from the ground up. Students will then install an operating system onto their newly built machines to learn all about its functions including setup and maintenance. Students will also learn how to prevent problems before they happen by developing a preventative maintenance schedule, how to troubleshoot problems when they occur as well as other IT skills such creating and filling out a work ticket. This course is excellent for anyone seeking to go into the IT field, or anyone who wants to build and keep their own computer in good working order.

<b>HONORS CISCO HP IT ESSENTIALS 2 (Computer Hardware and Software)</b>	<b>6662 – Sem. 2</b>	Gr. 9, 10, 11, 12	Prerequisite: CISCO HP IT Essentials 1
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This course continues to expand students' knowledge of computers and information technology from IT Essentials 1. This course introduces students to many basic networking concepts including network structures, physical components of networks, and the actual process of connecting a computer to a network. Students will also have the opportunity to examine the inner workings of a laptop computer that they will disassemble. Topics such as security issues, mobile devices, building network cables, and fiber optics will also be explored. This course is an excellent choice for students interested in pursuing careers in the fields of IT, networking and network security.

<b>INTRODUCTION TO WOODWORKING</b>	<b>6691 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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This is a technology oriented course for those who enjoy and benefit from hands-on experiences. The activities enable students to develop safe hand tool and machine tool skills as they discover the technological applications of industrial materials. The student will transform natural resources, such as wood, metal, and plastic, into high-grade manufactured products. Students will have the opportunity to utilize fabricating resources such as the Robotic Laser Cutters/Engravers, CNC Mills, Injection Machines, and other advanced equipment. Students will progress at their individual rates. This is an entry level course without prerequisites.

<b>ADVANCED WOODWORKING</b>	<b>6692- Sem. 2</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: Intro to Woodworking</b>
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Students extend the skills, knowledge, and work ethic developed in the entry level course, Manufacturing & Production 1 (6673). Students will design, construct, and finish professional quality products. Hand tool and machine tool skills will be improved as students employ advanced technological processes to complete individual projects. Students will have the opportunity to utilize fabricating resources such as the Robotic Laser Cutters/Engravers, CNC Mills, Injection Machines, and other advanced equipment. Students will progress at their individual rates. This course may be repeated for credit.

<b>GRAPHICS DESIGN 1</b>	<b>6741 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: None</b>
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This course is an introduction to 21st Century graphic design and career readiness. Students will learn how to design print and web based media. Sample projects may include theatre show posters, digital logos, and vinyl decals. Students will also be exposed to photography, typography, traditional screen printing methods including t-shirt making and dye sublimation printing using different Medias. This course is a balance of computer technology as well as hands-on, take-home projects and activities. Some of the design layout software integrated into this course includes Adobe Illustrator, Photoshop, InDesign and Corel Draw.

<b>HONORS GRAPHICS DESIGN 2</b>	<b>6742 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: Graphics 1</b>
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Students will continue to implement the skills from Graphic Communication Technology 1 while increasing skills and understanding of the design and the production process. Higher emphasis will be placed on design and career readiness. Sample projects may include theatre show posters, magazine layouts, calendars, brochures and vinyl decals. Students will experience units focused around advanced photography, digital camera techniques, in depth screen printing, and dye sublimation on various media. This course makes extensive use of computer technology as well as hands-on project activities. Computer software utilized in the course includes but is not limited to Adobe Illustrator, Photoshop, and InDesign.

<b>ROBOTICS IN POWER TECHNOLOGIES 1</b>	<b>6763 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: None</b>
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In this hands-on class, students will design, build and program VEX robots. This course will introduce students to the fundamentals of programming and building robots as well as the problem solving and critical thinking strategies necessary to create and operate the robots. Because of the multidisciplinary nature of robotics, students will be exposed to many aspects of robotic engineering including concepts from computer, electrical and mechanical disciplines. Students will work in teams to build and modify a basic robot to perform various tasks of increasing complexity, before finally designing robots from the ground up to compete in several in-class competitive robotics challenges.

<b>ROBOTICS IN POWER TECHNOLOGIES 2</b>	<b>6653 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: Robotics 1</b>
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Students will continue to use VEX robotic components to deepen their knowledge of robotics technologies. Students will experience more applied/hands-on units in problem solving as sensors and more complex tasks are integrated into the robotic design challenges. Students will design and document as engineers do as they learn to build and program a robot capable of completing complex, real world tasks. Students will solve these problems as part of a team and will compete against other teams in their class.

<b>APPLIED ENGINEERING 1</b>	<b>6851 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: None</b>
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Do you enjoy a good challenge? Do you like being creative? This course is designed to provide a sampling of hands-on, minds-on engineering lab experiences in all varieties and activities for the problem-solving, creative student. This course exposes students to various technical fields and engineering career choices through a series of design briefs and open-ended challenges. This course is a blend of applicable skills related to science, technology, engineering, & mathematics. Students will have the opportunity to utilize fabricating resources such as 3-D printers, robotic laser cutters, CNC mills, injection machines, mold making equipment, and other prototyping devices used to complete their projects. If you are considering a career in a technical field, engineering or medical device engineering, prototyping, or enjoy a lab setting then this course is designed for you.

<b>HONORS APPLIED ENGINEERING 2</b>	<b>6862 – Sem.</b>	<b>Gr. 9, 10, 11, 12</b>	<b>Prerequisite: A E 1</b>
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This hands-on, interest-driven, team-building course is designed for the student who enjoys creating inventions, innovations, & developing products and projects from idea to reality. The course's project-based activities expose students to prototype development, company start-up, advanced manufacturing, and other technical areas related to science, technology, engineering, & mathematics. This honors extension enables students to use their natural abilities, leadership and presentation skills developed from Applied Engineering I (6851) to solve abstract problems in a wide variety of technological areas. Students will have the opportunity to utilize fabricating resources such as 3-D printers, robotic laser cutters, CNC mills, injection machines, mold making equipment, and other prototyping devices. If you are considering a career in a technical field, engineering or medical device engineering, prototyping, or enjoy a lab setting then this course is designed for you. This course is repeatable for additional credit.

## FINE ARTS

Mt. Lebanon School District requires four (4) credits of electives in Arts and/or Humanities. The courses in the Fine Arts Department meet the Arts and/or Humanities elective graduation requirements. **4 day a week electives are only for juniors and seniors taking lab sciences.**

<b>DANCE 1</b>	<b>7063 – Full Year (2 day)</b>	Gr. 9, 10, 11, 12	Prerequisite: None
<b>DANCE 2</b>	<b>7075 – Full Year (2 day)</b>	Gr. 10, 11, 12	Prerequisite: Dance 1

**Students that are medically excused from Dance for more than 50% of the semester due to a "Temporary Long Term Injury" are required to make up the time missed.**

**\*Students that have a "Temporary Short-Term Injury" are able to participate in Dance activities after the corresponding Medical Doctor completes a "Modified Dance Checklist." This checklist indicates activities in which students are able to safely participate.**

In the introductory year-long Dance1 course, meeting 2 days per week, students learn a variety of dance styles that teach fundamental skills that focus on current and classical dance. Dance your way to physical fitness as you explore the art of dance. In Dance 2 students refine technical skills and expand knowledge of contemporary dance movements. No previous dance training is necessary.

Dance courses fulfill the physical education requirement for 9<sup>th</sup> and 10<sup>th</sup> grade. Students can earn their Physical Education credit by taking Dance 1 and 2. Students interested in continuing dance, may take Dance 3 which is repeatable for elective credit. Specific clothing and shoes are required.

<b>DANCE 3</b>	<b>7123-Sem. (2 day)</b>	Gr. 11, 12	Prerequisite: Dance 2
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This course is designed for students who have fulfilled their physical education requirement in Dance 1 and 2, and are interested in continuing their dance education. Dance 3 presents contemporary styles and emphasizes mastery of movement vocabulary, dance techniques, choreography, performance skills, and body awareness. Dance 3 is a two days per week semester course, repeatable for credit. Specific clothing and shoes are required.

<b>DANCE COMPANY</b>	<b>7160 – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: Audition
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Dance Company fulfills the physical education requirement for 9<sup>th</sup> and 10<sup>th</sup> grade students. After extensive auditions, selected students become members of the Mt. Lebanon High School Dance Company which meets the needs of advanced students to extend and perfect their dance skills. Students develop technical proficiency and detail of movement necessary for performance along with the opportunity to choreograph. Specific clothing and shoes are required.

<b>CONCERT CHOIR</b>	<b>7200 – 5 days/week – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: None
	<b>7210 – 4 days/week – Full Year</b>	Gr. 11, 12	

Concert choir provides the opportunity to sing and perform in a group setting. You may elect to participate in this vocal ensemble without audition. Although no previous singing experience is required, experienced musicians are encouraged to register. Students will: learn the fundamentals of singing in a group, expand their knowledge of choral repertoire (classical, sacred, secular & pop, alike), engage in part-singing and sight-reading, and continue their development of musicianship skills through the exploration of beginner and intermediate level music theory. This ensemble is a performance-based class. Students are provided with the opportunity to perform at school and exchange concerts, festivals, competitions and/or special events. Light choreography and memorization *may* be implemented into various performances. There are a *minimum* of three required performances throughout the school year, which include: the winter and spring choral concerts and the annual Cabaret.

<b>HONORS CONCERT CHOIR</b>	<b>7215 – 5 days/week – Full Year</b>	Gr.10, 11, 12	Prerequisite: See Course Description
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Students who desire honors concert choir must see the choral director for pre-approval **prior** to scheduling the course and must submit a memo of understanding signed by the student and their parent or guardian. Honors credit will be granted for meeting all course requirements for concert choir and successfully completing additional activities/projects each semester. Level changes between Honors and Academic Concert Choir are only permitted in the first six weeks of the first semester.

<b>CONCERT BAND</b>	<b>7230 – 5 days/week - Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: None
	<b>7240 – 4 days/week - Full Year</b>	Gr. 11, 12	

Concert Band is open to students who play their instruments proficiently. Learning music of all styles, this ensemble performs at school and exchange concerts, festivals, competitions, and special events. Special ensembles are organized based on student interest—brass choir, woodwind choir, percussion ensemble, and solo ensemble groups. Students are encouraged to study privately. **All students in Concert Band must participate in Marching Band unless exempted.** Reasons for exemption are: (1) physical disability, (2) playing an instrument not appropriate for marching, and (3) active athletic participation in a conflicting fall school WPIAL sport.

<b>WIND ENSEMBLE</b>	<b>7250</b> – 5 days/week -- Full Year <b>7260</b> – 4 days/week – Full Year	Gr. 9, 10, 11, 12 Gr. 11, 12	Prerequisite: <b>Audition</b>
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Wind Ensemble is an advanced band class which will offer more advanced students the opportunity to study and perform great literature composed specifically for this medium. Admittance to this course would be by audition in the spring for students in grades 8 – 11. All students interested in Wind Ensemble should elect **Concert Band** on their course selection sheet in January. After auditions, students who are selected for Wind Ensemble will be scheduled accordingly. **All students in Wind Ensemble must participate in Marching Band unless exempted. Exemption reasons listed in Concert Band course descriptions.**

<b>HONORS WIND ENSEMBLE</b>	<b>7300</b> – Full Year	Gr. 10, 11, 12	Prerequisite: see course description
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Students who desire honors wind ensemble must see the band director for pre-approval **prior** to scheduling the course and must submit a memo of understanding signed by the student and their parent or guardian. Honors credit will be granted for meeting all course requirements for wind ensemble and successfully completing additional activities/projects each semester. Level changes between Honors and Academic Wind Ensemble are only permitted in the first six weeks of the first semester. **All students in Honors Wind Ensemble must participate in Marching Band unless exempted. Exemption reasons listed in Concert Band course descriptions.**

<b>ORCHESTRA</b> <b>-STRINGS</b> <b>-WOODWINDS, BRASS, PERCUSSION,</b> <b>PIANO</b>	<b>7270</b> – Full Year <b>7280</b> – Full Year	Gr. 9, 10, 11, 12 Gr. 9, 10, 11, 12	Prerequisite: Prior instruction (Strings) Audition (Winds & Percussion ) see below
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All string students are eligible to sign up for Orchestra. Woodwind, brass, percussion and piano players are selected by audition. There are several openings for woodwind and brass students who want to perform in a symphony orchestra. Course work includes daily rehearsals, playing tests, written tests, and required evening rehearsals and performances. Chamber music experiences are an outgrowth of the orchestra class. Orchestra is not offered as a semester elective. Woodwind, brass and percussion students may elect orchestra during the course selection window contingent on audition results in May.

<b>HONORS ORCHESTRA</b>	<b>7290</b> – Full Year	Gr. 10, 11, 12	Prerequisite: See course description
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Students who desire honors orchestra must see the orchestra director for pre-approval **prior** to scheduling the course and must submit a memo of understanding signed by the student and their parent or guardian. Honors credit will be granted for meeting all course requirements for orchestra and successfully completing additional activities/projects each semester. Level changes between Honors and Academic Orchestra are only permitted in the first six weeks of the first semester.

<b>MUSIC TECHNOLOGY 1</b>	<b>7313</b> – Sem.	Gr. 9, 10, 11, 12	Prerequisite: None
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Music Technology 1 offers students the opportunity to compose and record their own original songs using computers, software, keyboards, and the music technology recording rooms. Basic song writing and music theory concepts will be taught. While all musicians are encouraged to enroll, no musical background or experience is required. All instrumentalists and vocalists will benefit from the opportunity to create original music. Students will learn the basics of MIDI and Audio Sequencing using finale and sonar software in this course.

<b>MUSIC TECHNOLOGY 2</b>	<b>7323</b> – Sem.	Gr. 9, 10, 11, 12	Prerequisite: Music Technology 1
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Music Technology 2 will continue with the skills learned in Music Technology 1. Students will use more advanced techniques to compose and arrange music and CD's **will** be produced of original music. Triton Keyboard workstations will be utilized for group composition projects.

<b>MUSIC TECHNOLOGY 3</b>	<b>7330</b> – 5 days/week – Sem. <b>7340</b> – 4 days/week – Sem.	Gr. 10, 11, 12 Gr. 11, 12	Prerequisite: Music Technology 1 and Music Technology 2
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Using skills learned in Music Technology 1 and 2, students create and record original music using the latest computer technology and music hardware. Students gain further proficiency in MIDI, sequencing, music notation, computer assisted theory and ear training, and composition. Students have opportunities to produce music for TV, theatre, and dance classes as well as community programs. This course may be repeated for credit.

<b>ADVANCED PLACEMENT MUSIC THEORY</b>	<b>7350- Full Year</b>	Gr. 10, 11, 12	Prerequisite: One year of high school music course or ensemble
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This course encompasses all the elements of music including melody, harmony, rhythm and meter, and will include the opportunity to use the computer software and keyboards for a hands-on experience. Scales, modes, intervals, chord progressions, the major/minor system, transposition, composition, rhythmic and harmonic dictation, and sight-singing will be major topics of study. It is strongly recommended that students have some background in music, to be considered for this course; therefore, students must complete a full year of a music course as a prerequisite. This course can help to prepare students for the Advanced Placement (AP) test in music theory. As this course is the equivalent of a first-year college course in music theory, students should expect to spend 1 to 2 hours a night outside of class on homework, projects and other course requirements. There is a strong expectation that students will take the AP examination in May.

<b>TECHNICAL THEATRE COMPANY (Theatre Arts &amp; Design)</b>	<b>7433 – Sem. (5 days/wk)</b> <b>7443 – Sem. (4 days/wk)</b>	Gr. 9, 10, 11, 12 Gr. 11, 12	Prerequisite: None
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Using the evening productions for technical and design skill development, this course prepares students for production crews. Students learn equipment upkeep and safety for all auditorium and theatre events. Crew sessions are required after school and on Saturdays prior to production so that set construction and painting, costume and makeup, light and sound can be created based on class research and design. Qualified, competent students, approved by the instructor, are eligible to work as salaried members of the Community Service Stage Crew. This course may be repeated for credit.

<b>COMMUNITY SERVICE STAGE CREW (3 day)</b>	<b>7463 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Students in this crew work under the direction of a district sponsor who directs their activities to meet the producing organization's needs. In this hands-on course, students develop the technical knowledge and working skills required to operate the auditorium and fine arts theatre stages. Upon successful completion of the course work, written tests, and demonstration of technical skills, students may be certified to work on the CSSC as salaried members. This course may be repeated for credit.

<b>SPEECH COMMUNICATION</b>	<b>7503 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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Students in this semester-long course will gain poise and confidence as they develop and demonstrate oral communication skills through a series of activities, discussions, presentations and projects. Specific areas of concentration include: message construction, research and evidence, critical listening, delivery and presentations skills, ethical issues in public communication, argumentation and persuasion, job and college interviewing, and overcoming communication apprehension.

<b>INTRO TO THEATRE ARTS</b>	<b>7528-Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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This course will offer students the opportunity to explore the world of Theatre and provide them with a foundation for advanced study of the art. Areas of study include: basic theatre vocabulary, theatre history, basic acting skills, and critical response/audience etiquette.

<b>Principles of Acting</b>	<b>7538 – Sem.</b>	Gr. 9, 10, 11, 12	Intro to Theatre Arts
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This course will focus on acting as a craft. Students will study character development, script and language analysis, movement, and acting technique. Students will explore theatre history and multiple theatre genres.

<b>PRINCIPLES OF DIRECTING</b>	<b>7548 – Sem.</b>	Gr. 9, 10, 11, 12	Prerequisite: Intro to Theatre Arts
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This course will focus on the fine art of directing. Students will organize a production book as they develop blocking, coach actors, create technical cues, manage rehearsal schedules, and study varied directing styles.

<b>THEATRE WORKSHOP</b>	<b>7578 – Sem.</b>	Gr. 10, 11, 12	Prerequisite: Intro to Theatre Arts <i>and either Principles of Directing or Principles of Acting</i>
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This course provides students the opportunity to collaborate on an original production. Students will learn the fundamentals of playwriting in the first nine weeks of the semester and then direct each other in an original play for Daytime performances in the second nine weeks. This course may be repeated for credit.

<b>EVENING THEATRE COMPANY</b>	<b>7583 – Sem.</b>	Gr. 11, 12	Prerequisite: Intro to Theatre Arts, Principles of Acting, Principles of Directing, <i>and either Theatre Workshop or Audition for early enrollment</i>
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Theatre Company performs the evening production for the Theatre Department. Students have the opportunity to audition for parts in the production. Students also perform a variety of scripts and a daytime production for a public audience and the student body at large. **After-school and evening rehearsals are required.** This course may be repeated for credit.

<b>ART 1</b>	<b>7603</b> – Sem.(5 days/wk)	Gr. 9, 10, 11, 12	Prerequisite: None
	<b>7613</b> – Sem. (4 days/wk)	Gr. 11, 12	

This introductory course was designed for those who are artists and those who are interested in getting better at art. Students will explore a variety of artistic techniques designed to improve your skill. Students will develop projects which may include but are not limited to sketching, drawing, painting, sculpting, and ceramics (hand-building and wheel-throwing). Introductory projects are designed to improve creativity and enhance skills. Students work with tools and art production equipment in both the 2D and 3D studios. The course provides varied experiences for a wide range of ability levels.

<b>ART 2</b>	<b>7633</b> – Sem. (5 days/wk)	Gr. 9, 10, 11, 12	Prerequisite: Art 1
	<b>7643</b> – Sem. (4 days/wk)	Gr. 11, 12	

Instruction in this course facilitates the development of creative 2D and 3D projects for students of all abilities. Students will create compositions based on interest and personal taste. Students will explore, in greater depth, a balance between 2D projects and 3D projects. Possible mediums explored may include, but are not limited to, acrylic painting, watercolors, graphite/markers/ink, colored pencils, pastels, wire, plaster, sculpture, clay, mosaic, installation, and collaborative art. Students choose the topics they wish to explore as they are taught what makes a competitive portfolio and discover talents and interests across artistic mediums.

<b>2-D STUDIO ARTS</b>	<b>7653</b> – Sem. (5 days/wk)	Gr. 10, 11, 12	Prerequisite: Art 2
	<b>7663</b> – Sem. (4 days/wk)	Gr. 11, 12	

Students selecting this course want to explore the finer applications and skill refinement of two-dimensional mediums, such as painting, drawing with graphite, pen and ink, acrylic paints, watercolors, charcoal, colored pencils, and more. Students will use creative problem solving skills as they apply wet and dry media to large and small scale paper, boards, and canvases. Sustained investigation leads to high quality pieces that may guide their portfolios. This course may be repeated for credit. This course is a prerequisite for Honors 2-D Studio Arts and may be repeated after Honors 2-D Studio Arts.

<b>HONORS 2-D STUDIO ARTS</b>	<b>7683</b> – Sem.	Gr. 10, 11, 12	Prerequisite: Art , 2-D Studio Art, <b>and</b> art portfolio review
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Honor 2D promotes skill mastery and experimentation with materials application. Students find their artistic voice at the Honors level while developing a portfolio which may be useful for college admission purposes. Students will create a well-rounded, competitive portfolio while addressing conceptual prompts of their own design. Personal research such as searching for images, taking photos, and using models enhance compositions. Honors students may choose artistic mediums they prefer to work in. This course may only be taken for two (2) semesters of honors credit, after which students may return to the academic level of 2-D Studio Arts.

<b>ADVANCED PLACEMENT STUDIO ART</b>	<b>7690</b> – Full Year	Gr. 10, 11, 12	Prerequisite: Art 2 <b>and</b> art portfolio review
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This course, which follows the College Entrance Examination Board (CEEB) syllabus, is intended for highly motivated students who are seriously interested in the study of art beyond high school. AP level work involves significantly more commitment and accomplishment, and students are required to work outside the classroom and beyond scheduled periods including independent trips to museums and galleries. Students have the option to submit a 2-D portfolio to CEEB for evaluation at the end of the school year. As this course is the equivalent of a first-year college course in studio art, students should expect to spend 1 to 2 hours a night outside of class on homework, projects and other course requirements. **There is a strong expectation that students will take the AP examination in May.**

<b>3-D STUDIO ARTS</b>	<b>7703</b> – Sem. (5 days/wk)	Gr. 10, 11, 12	Prerequisite: Art 2
	<b>7713</b> – Sem. (4 days/wk)	Gr. 11, 12	

Students selecting this brand new course want to explore the finer applications and skill refinement of three-dimensional mediums, such as ceramics (hand-built pottery and the potter's wheel), fiber art (weaving, felting, etc.), sculpting (plaster, metal, found-objects, etc.), jewelry-making, and more. Students will use creative problem solving skills and the Elements and Principles of Design to create large and small scale works of art! Become a "maker" and try 3-D Art as you build your art portfolio. This course may be repeated for credit. This course is a prerequisite for Honors 3-D Studio Arts and may be repeated after Honors 3-D Studio Arts.

<b>Honors 3-D STUDIO ART</b>	<b>7733</b> – Sem.	Gr. 10, 11, 12	Prerequisite: Art 2, 3-D Studio Art, <b>and</b> art portfolio review Prerequisite: 3-D Studio Art
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Honors 3-D promotes skill mastery and experimentation with materials application. Students find their artistic voice at the Honors level while developing a portfolio which may be useful for college admission purposes. Students will choose their favorite 3-D mediums explored in 3-D Studio Art to create a highly personalized, well-rounded, competitive portfolio while addressing conceptual prompts. Sculpt, weave, knit, mosaic, or assemble your way to finding your artistic voice! Personal research such as searching for images, taking photos, and using models to enhance compositions is required. This course may only be taken for two (2) semesters of honors credit, after which students may return to the academic level of 3-D Studio Arts.

<b>MEDIA ARTS &amp; PRODUCTION 1</b>	<b>7743</b> – Sem.	Gr. 9, 10, 11, 12	Prerequisite: None
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In this hands-on class, students will produce media by creating short videos, advertisements, talk shows, and broadcast news shows. With each project, students will increase their awareness about the impact of media on our culture and ourselves. Students will learn the basics of digital camcorder operation, audio recording, and digital video editing using Adobe's Premiere Pro Creative Cloud. Teamwork, collaboration, responsibility, and creativity are emphasized.

<b>ADVANCED MEDIA PRODUCTION</b>	<b>7760</b> – Sem. (5 days/wk)	Gr. 10, 11, 12	Prerequisite: Media Arts1 <b>and</b> teacher recommendation
	<b>7770</b> – Sem. (4 days/wk)	Gr. 11, 12	

Students are focused, independent workers who enroll in the class to explore advanced editing techniques and the creation of video effects and motion graphics. Successful participation requires self-motivation, skill at time management, and creativity. During the semester, students will create at least four short video projects of their own design. In the past, projects have included: public service announcements to be aired at the middle schools, entries for national and regional video contests, videos used by district teachers for instruction, short, fictional web series, promotional pieces for school and community activities, and much more. Students are encouraged to take on leadership roles and work together as a team to produce projects of exceptional quality. Students will screen productions for the class and engage in critical responses to peers' videos. Final edits are to be broadcast quality, and will be screened publicly. This course can be repeated for credit.

<b>DIGITAL FILMMAKING</b>	m. (5 days/wk)	Gr. 10, 11, 12	Prerequisite: Advanced Media Production
	m. (4 days/wk)	Gr. 11, 12	

Digital Filmmaking is designed for students who are interested in telling original, narrative stories through film. Students will create a short film over the course of the semester, handling every part of the production process: screenwriting, casting, filming, editing, and screening. As this class can be repeated for credit, students who return to the class may choose to create a new short film, or may select projects and tasks from a menu of options, allowing each to either sample from a wide variety of options or to delve deeply into a single subtopic. Successful students will demonstrate strengths in: independent work, time management skills, and flexibility. Projects offered include film analysis, screenwriting, directing, video effects, lighting, cinematography, and editing. Students are required to exhibit their work in class critiques and through the district's online media sharing website.



## HEALTH AND PHYSICAL EDUCATION

Mt. Lebanon School District requires 1.6 credit of physical education for graduation. Freshman year, students selecting PE, take it both semesters, two (2) days per week. Students selecting dance take it both semesters, two (2) days per week. Sophomore year, students selecting PE take it both semesters two (2) days per week; students selecting dance take it both semesters two (2) days per week. At the conclusion of sophomore year, students who have selected PE or Dance will have fulfilled their PE requirement. Students may switch disciplines between freshman and sophomore year.

The district also requires that students complete a one-semester health course. Students fulfill the district graduation project requirements through successful completion of a personal health project in the required health course.

**\*Students that are medically excused from PE or Dance for more than 50% of the semester due to a "Temporary Long-Term Injury" are required to make up the time missed.**

**\*Students that have a "Temporary Short-Term Injury" are able to participate in PE or Dance activities after the corresponding Medical Doctor completes a "Modified PE Checklist." This checklist indicates activities in which students are able to safely participate.**

<b>HEALTH &amp; WELLNESS</b>	<b>7903 - Sem.</b>	Gr. 10, 11, 12	Prerequisite: None
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Required during one of the last 5 semesters, Health is a course in self-awareness and self-analysis that challenges the student to examine their lifetime choices and decisions. There is a strong emphasis on holistic wellness including the physical, mental, emotional and social components. Units of study include emotional wellness, stress management, nutrition, exercise, disease prevention and immunity. The unit in emergency aid includes instruction and certification in CPR. Social problems of alcohol and other drugs are presented, and human sexuality is explored in depth. Parents should note that a degree of social and emotional maturity is required to participate comfortably in the course; therefore, the decision as to which semester the course is selected should be made after careful consideration of the individual student's level of maturity.

<b>PHYSICAL EDUCATION 9 (2 day)</b>	<b>7940 – Full Year</b>	Gr. 9	Prerequisite: None
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In this year-long program which meets 2 days per week, students learn and engage in a variety of activities. Our broad scoped fitness-based curriculum includes units in team, lifetime, and individual fitness activities. Examples include FitnessGram (a comprehensive fitness assessment), Ultimate Frisbee, Football, Soccer, Swimming, Basketball, Aerobics and Personal Fitness. All skills are taught and broken down in a systematic progression to increase student success. Activity monitors are used daily to access student effort levels.

**The grading system in PE is comprehensive in nature; possible grades earned include A, B, C, D, and E. Grades are based on attendance, effort, attitude, and quizzes.**

Grading Scale- A = 100-90, B= 89–80, C= 79-70, D= 69-60, E= 59 and below.

<b>PHYSICAL EDUCATION 10 (2 day)</b>	<b>7950– Full Year</b>	Gr. 10	Prerequisite: PE 9
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10th grade Physical Education encompasses a variety of fitness-based activities, non-traditional games and lifetime sports. Fitness assessment is conducted via Fitnessgram, as well as a Functional Movement Screening (FMS). Students will develop and execute a personal fitness plan that centers on their personal goals and interests. Daily assessment will be measured via a Polar Heart Rate monitor and other means of objective physical activity measurement.

**The grading system in PE is comprehensive in nature; possible grades earned include A, B, C, D, and E. Grades are based on attendance, effort, attitude, and quizzes.**

Grading Scale- A = 100-90, B= 89–80, C= 79-70, D= 69-60, E= 59 and below.

<b>ADAPTED PHYSICAL EDUCATION 9, 10, 11, 12</b>	<b>7953 – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: None
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In this year-long program, which meets 5 days per week, adapted activities are provided to enable students with special needs to meet learning standards for physical education.

<b>SEASONAL SPORTS (2 day)</b>	<b>7963 – Sem.</b>	Gr. 11, 12	Prerequisite: PE 10
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This elective course meets two days per week. Students learn skills and techniques utilized in activities such as tennis, football, speedball, soccer, ultimate Frisbee, field hockey, softball, basketball, and volleyball.

<b>PERFORMANCE &amp; WELLNESS</b>	<b>7964/7965</b> – Sem. 4 day/week 5 day/week	Gr. 9, 10, 11, 12	Prerequisite: None
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The Performance and Wellness class gives the students of Mt. Lebanon a solid foundation in strength and conditioning. The Performance and Wellness course will concentrate on the five components of physical fitness (cardiovascular endurance, muscular strength, muscular endurance, flexibility and body composition); these components are all needed to live a long and healthy life. In addition, the course is designed around the National Academy of Sports Medicine Optimum Performance Training Model (NASM-OPT Model). The OPT Model is a comprehensive scientific and research based training system that is designed to implement programs based on individual needs. This course may be repeated for credit.

\*The class cannot be taken in place of 9<sup>th</sup> or 10<sup>th</sup> grade PE.

**The grading system in this course is comprehensive in nature; possible grades earned include A, B, C, D, and E.**

**Grades are based on attendance, effort, attitude, and quizzes.**

Grading Scale- A = 100-90, B= 89–80, C= 79-70, D= 69-60, E= 59 and below.

<b>MINDFUL MOVEMENT: STRETCH, STRENGTHEN, AND BREATHE</b>	<b>7975</b> – Sem. (2 day)	Gr. 9, 10, 11, 12	Prerequisite: None
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In this 2 day a week semester course, students will explore exercises that draw from Pilates, Yoga and other movement-based techniques. The class will incorporate several components of physical fitness including strength, flexibility and balance, with an emphasis on breath and proper alignment. This course will draw on relaxation and mindful techniques creating unique movement experiences for students that aim to improve their overall physical fitness while addressing holistic health needs. This course may be repeated for credit.

\* This class cannot be taken in place of 9<sup>th</sup> or 10<sup>th</sup> grade PE.

<b>AMERICAN RED CROSS LIFEGUARDING COURSE (2 DAY)</b>	<b>7983</b> – Sem.	Gr. 11, 12	Prerequisite: PE 10
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This course is designed to give students the proper and effective training skills in compliance with the American Red Cross guidelines. Students will be able to recognize hazardous situations to prevent injury. They will learn how to supervise swimmers, minimize dangers, educate facility users about safety, enforce rules and regulations and be trained to provide assistance and perform rescues. Course completion requires an endurance skills test, a written exam and a rescue skills evaluation test. All students will also be required to pay the American Red Cross fee for materials and certification cards totaling \$35.00. A Lifeguard Certification from the American Red Cross is applicable for three years allowing the opportunity for employment and personal growth.

<b>PE PARTNERS (2 days)</b>	<b>7993</b> – Full Year	Gr. 10, 11, 12	Prerequisite: PE 9
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PE Partners brings students in the Life Skills Support Program and students without disabilities together for a unique one-semester Physical Education elective course. Students will participate in group lessons that engage students in lifelong skills of fitness and wellness. Additionally, students will learn how to plan and carry out their own dynamic lessons that engage all students and evaluate their effectiveness. Acceptance into PE Partners course is contingent upon a successful application process, which includes a brief screening interview. The course may be repeated for credit. This course may be taken in place of 10<sup>th</sup> grade PE.

## PARKWAY WEST CAREER AND TECHNOLOGY CENTER

<b>TECHNICAL AND CAREER EDUCATION</b>	<b>8600 – Full Year</b>	Gr. 9, 10, 11, 12	Prerequisite: Approval by Parkway and district
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Students wishing to participate in extensive study of a technical area may pursue application to this school. Students accepted into the program are transported by the district to Parkway for daily half-day sessions through which they earn general elective credits toward graduation at Mt. Lebanon High School. Students also attend the high school for daily half-day sessions for instruction in core subjects such as English, mathematics, science, social studies and physical education. At Parkway, students develop technical skills to obtain and hold jobs in a variety of fields. Attendance in the Parkway program does not preclude college admission following graduation.

### Selecting a Career Major at Parkway West Career and Technology Center:

#### **AUTO BODY REPAIR**

Auto Body Repair is certified by the National Automotive Technology Education Foundation (NATEF) and provides instruction in the most current techniques for repair and replacement of damaged automobile parts. Students learn to repair collision damage and to replace quarter panels, door skins, and fenders. The curriculum also includes painting, MIG welding, collision repair, frame straightening, and damage analysis. Students gain experience in mixing and tinting paint, custom painting, computerized estimating, and auto detailing. Practical experience is also provided through a full-service auto body repair shop. Students have the opportunity to earn PPG Blue Level Paint and I-Car MIG Welding certifications. They are also eligible to earn I-CAR Points.

#### **AUTOMOTIVE TECHNOLOGY**

Automotive Technology is certified by the National Automotive Technician's Education Foundation (NATEF) and affiliated with all the major automotive manufacturers through Automotive Youth Educational Systems (AYES). Students prepare to take the Pennsylvania State Inspection License examination. Students learn basic vehicle maintenance, repair, and replacement of drive trains, brake systems, chassis components, and fuel electrical systems. Special emphasis is placed on troubleshooting an engine performance via the use of state-of-the-art electronic diagnostic equipment. Practical experience is also provided in the auto repair shop. Under the Automotive Youth Educational Systems (AYES) apprenticeship program, students may qualify to become apprentices working under mentor master technicians. Students can earn certifications from AYES, the National Institute for Automotive Service Excellence (ASE), and the Coordinating Committee for Automotive Repair (CCAR).

#### **COSMETOLOGY**

Cosmetology prepares students to perform technical services, including all aspects of hair, skin/nail beautification, and personal maintenance. These skills are supported and reinforced with a theoretical background including sanitation, chemistry, anatomy and physiology, as well as structure, function and disorders of the hair, skin, nails and scalp. This program helps students develop into well-rounded professionals who practice real-world services in Parkway's salon, which is open to the public two days a week. Utilizing an integrated approach to teaching and learning, students learn about interpersonal relations, professional attitude, and career fundamentals along with technical knowledge and skills. Techniques and abilities are practiced and tested on mannequins, classmates and the general public. Students who are able to attend this program for three to four years will have the opportunity to earn 1,250 hours of state-regulated course requirements to take the state licensing exam to be a licensed cosmetologist, which encompasses providing services to the public for hair, skin and nails. Students who are able to take one or two years of instruction in this program, may choose from the following specialized licensed fields: **Nail Technician License:** This license requires 200 hours of instruction and can be completed within one year. An individual holding a nail technician license is qualified to perform nail technology services only. **Cosmetology Teacher License:** The prerequisite for this course is having successfully passed at least one of the above licensures. This license requires 500 hours of required studies and can be complete within one year. An individual holding a teacher's license is qualified to perform the functions of a teacher in whichever specialized area the individual has obtained licensure.

#### **CULINARY ARTS**

Culinary Arts provides practical instruction in the preparation of banquet, buffet and a la carte styles of food preparation. Practical experience is provided through the operation and management of an in-house, full-service restaurant. Students also provide goods and services for the Parkway West Food Store, where pastries and select meats are sold. Students learn to design cakes and prepare many different types of cuisine. Senior students who have completed at least two years of Culinary Arts will have the opportunity to earn both the National Restaurant Associations, ServSafe certification and the American Culinary Federation certification. Other certifications that can be earned from the Culinary Arts program include: OSHA 10 Culinary, SP2, Heart Saver CPR, and Heart Saver First Aid.

## **CONSTRUCTION TECHNOLOGY CLUSTER**

\*\* Construction Cluster students will spend 9 weeks in each of the programs below. Students will then choose a program concentration after their first year. The construction cluster programs include: Carpentry, Electrical Systems Technology, HVAC/R, and Welding Technology.

\*\***CARPENTRY**...A student in the Carpentry program will apply technical knowledge and skills to layout, fabricate, erect, install and repair structures and fixtures using hand and power tools, scaffolding and specialty tools used in the construction trade. This program includes instruction in common systems of framing, construction materials, estimating, blueprint reading and finish carpentry techniques. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction card. Students have the potential to earn 17 certifications through NCCER.

\*\***ELECTRICAL SYSTEMS TECHNOLOGY**...teaches students the integral components of the electrical industry for entry level employment in residential, commercial, and/or light industrial locations. The basis of instruction is in the layout, assembly, installation, wiring, maintenance, and trouble-shooting of electrical systems. Understanding programmable logistical controls (PLC's) and how transformers operate are also covered. Students have the opportunity to earn 20 certifications through NCCER.

\*\***HVAC/R**. Heating, Ventilation, Air-Conditioning, and Refrigeration, which has been newly renovated with state-of-the-industry equipment, provides instruction in basic and advanced electrical theory, troubleshooting and repair of residential and commercial heating, air-conditioning, and refrigeration systems. Students will be given the opportunity to earn a 10-hour Occupational Safety and Health Administration (OSHA) Construction Card. Students can earn the NCCER certifications Core, Type 1 and Type 2. They can also earn EPA Section 608 Refrigeration and Gas Tight Certification for CSST pipe.

\*\***WELDING TECHNOLOGY**...covers several types of welding processes by which metal may be bent, cut or welded together, including oxy-fuel, shielded metal arc, gas metal arc, gas tungsten arc, flux core welding, carbon arc, plasma cutting, and oxy-fuel brazing. Students will learn the importance of industrial safety, measuring instruments, hand tools, grinders, metallurgy, blueprint reading, electrical principles, layout/design, and fabrication. They will also learn how to prepare materials lists for cost estimates. Students have the opportunity to earn several American Welding Society (AWS) certifications. Students can earn: NCCER Core, Welding Level 1 and OSHA 10.

## **CYBER SECURITY & NETWORK TECHNOLOGY**

...prepares students who are interested in networking and computer diagnostics. It begins with Cisco IT Essentials, PC hardware and software, and networking operating systems. Students initially prepare for CompTIA A+ and Comp TIA Server + certifications and then, through Cisco CCNA Discovery course, students learn networking concepts based on typical networks that one might encounter in a home or small office, or in larger, more complex enterprise models. Finally, students can prepare for the Cisco CCENT and Cisco CCNA certifications.

## **DIESEL TECHNOLOGY**

Diesel Technology is part of every aspect of today's transportation, construction, and manufacturing industries. In Diesel Technology, students will learn about the operation, maintenance, and overhaul of diesel-powered equipment. Diesel engines are found in military vehicles, trucks, trains, buses, construction and agricultural equipment. As the diesel equipment industry expands, the demand for mechanics and technicians to repair and maintain diesel equipment will continue to grow. Students will learn the fundamentals of hydraulics and have the opportunity to earn an Air Conditioning Recovery Certification. Students can earn certifications from the National Institute for Automotive Service Excellence (ASE), Refrigeration 609, Class I & III State Inspection, Forklift Operations.

## **GRAPHIC ARTS & PRODUCTION TECHNOLOGY**

...Graphic Arts & Production Technology is an instructional program that prepares individuals to apply technical knowledge and skills to plan, prepare and execute commercial and industrial visual image and print products using mechanical and digital graphic and printing equipment. Students learn desktop publishing, layout, composition, digital printing and bindery as well as photography and other graphic arts techniques. Emphasis is on typographical layout and design using computer graphics, digital printing, bindery and finishing techniques, ink and color preparation. Students will also learn large format digital printing with the application of a wide variety of output and vinyl applications including heat press and apparel design.

### **HEALTHCARE OCCUPATIONS TECHNOLOGY**

Students have the opportunity to participate in a wide range of real-world clinical and job shadowing experiences at many different local healthcare providers. Clinical experiences may include: child care, long term care, emergency nursing, recovery room nursing, radiology, medical records, operating room observation, pharmacy, physical/occupational therapy, and/or lab technician. Students will have the opportunity to earn and complete the American Heart Association “CPR for Healthcare Providers” certification and the following certifications in relation to the Health Care industry: Pennsylvania State Nurse Aid Registry (C.N.A). For first and second-year students, instruction begins with anatomy, physiology and medical terminology. Special attention is given to medical office examinations, treatment and patient care. Personal Care Home Direct Care Staff: For first and second-year students, this component offers a competency test from the PA Department of Public Welfare and it prepares students to work in a personal care home as a direct caregiver. **Pharmacy Technician Certification (CPHT)**: After successful completion of this one-year, 12th-grade course, students will assist the pharmacist in a variety of tasks. Module and lab work includes: controlled substances, laws and regulations, drug classifications, frequently prescribed medications, prescription information, preparing/dispensing prescriptions, calculations, sterile products, unit dose and repackaging. **Phlebotomy Technician Certification (CPT)**: This is a one-semester certification course directed towards 12th-grade students. Module and lab work includes: anatomy and physiology, infection control, safety and compliance, patient preparation, collection techniques, and processing collected samples. Students must demonstrate a minimum of 30 successful Venipunctures and 10 successful capillary punctures.

### **POWER MOTORSPORTS TECHNOLOGY (PM TECH)**

PMS Technology teaches students to diagnose, maintain and repair utility vehicles, all-terrain vehicles, including side-by-sides, motorcycles, water crafts as well as outdoor power machines, including lawn and garden equipment. Students will learn the principles of engine operation, understand basic electricity, service and maintain fuel and carburetor systems, transmissions, and powertrain systems used on various types of recreational and lawn & garden equipment. Students may have the opportunity to earn the following certifications: PA Emissions Certification; S/P2, OSHA 10.

\*other notable certifications I have found:

Equipment & Engine Training Council ([etc.org](http://etc.org))

PA Safety Inspector Category 1, 2, 3

Category 1 (Passenger cars/trucks 17,000 lbs or less/trailers 10,000 lbs or less)

Category 2 Motorcycles (must hold a valid Motorcycle license)

Category 3 (Buses/trucks over 17,000lbs/trailers over 10,000 lbs.

### **PUBLIC SAFETY TECHNOLOGY**

This course focuses on careers relating to emergency medical services, firefighting, law enforcement, and emergency management services. In order to successfully complete the program, students must meet minimum proficiency levels in all public safety areas. Instruction is provided in disaster situation/management, hazardous materials handling, pre-hospital medical care, map reading, firefighting, the judicial system, and emergency dispatching. Students have the opportunity to earn the following certifications: Emergency medical technician– Basic (EMT-B), PA Essentials of Firefighting, Hazardous Materials Awareness and Operations, Basic Rigging for Rope Rescue, and Tactical Handcuffing.

### **VETERINARY ASSISTANT TECHNOLOGY**

Students will learn to keep medical records, schedule appointments, offer client education, practice laboratory procedures, assist with nursing duties, prepare animals for surgeries, and assist during routine physical exams. Students will also gain a solid educational base on which to build a post-secondary degree. This program may lead to additional career pathways such as Animal Trainer, Veterinary Assistant, Kennel Assistant, Research Assistant, Groomers, Animal Control Workers, Veterinary Technician, Veterinary Technologist and Veterinarian. Students may earn the following certifications: NAVTA, OSHA 10 Agriculture, OSHA 10 Healthcare, Pet Tech First Aid and CPR.

### **SPORTS MEDICINE & REHABILITATION THERAPY TECHNOLOGY (SMARTT)**

The Sports Medicine and Rehabilitation Therapy Technology (SMARTT) Program prepares students to work in the field of physical therapy, occupational therapy and sports medicine. Students will develop skills in prevention, assessment, prognosis, and rehabilitation of injuries and other health conditions. Students will learn the principles of developing a plan of care, including: evaluation, interventions, assessment, goal setting and discharge. Students will also learn how to develop a diet for healthy individuals and for special populations through a comprehensive understanding of nutrition. Students will also be prepared to sit for the ACSM certified personal trainer exam and have the opportunity to earn the CPT credential.

## CCBC AVIATION PROGRAM

Students wishing to participate in aviation studies may pursue application to this school. Students accepted into the program are transported by the district to the CCBC facility for daily half-day sessions through which they earn general elective credits toward graduation at Mt. Lebanon High School. Students also attend the high school for daily half-day sessions for instruction in core subjects such as English, mathematics, science, social studies, and physical education. Attendance in the CCBC program does not preclude college admission following graduation.

<b>CCBC AVIATION PROGRAM</b>	<b>8600 – Full Year</b>	<b>Gr. 11, 12</b>	<b>Prerequisite: NONE</b>
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Do you want to learn how to fly a plane and help pilots safely land and take off? Do you desire to explore high demand, high pay, and exciting career fields?

CCBC's Aviation Academy is the place for your education to take-off and soar to new heights. The CCBC Aviation Academy is the only program in the United States that offers high schools students the opportunity to explore:

Professional Pilot, Air Traffic Control, and Aerospace Management career paths.

Students wishing to participate in aviation studies may pursue an application to this school. Students accepted into the program are transported by the district to the CCBC facility for daily half-day sessions through which they earn general elective credits toward graduation at Mt. Lebanon High School. Students also attend the high school for daily half-day sessions for instruction in core subjects such as English, mathematics, science, social studies, and physical education.

## NATIONAL COLLEGIATE ATHLETIC ASSOCIATION (NCAA)

Students entering a Division I or Division II college as a freshman must meet specific requirements to be classified as an NCAA “qualifier”:

- Graduation from high school
- Core-course grade-point average (non-weighted) and a combined score on the SAT verbal and math sections or a sum score on the ACT based on the qualifier index scale.

Courses from the following departments have NOT been approved as “Core GPA” courses:

- Business and Information Technology
- Family and Consumer Sciences
- Fine Arts
- Technology Education
- Technical School Courses
- Correspondence Courses
- Online Courses – unless provided directly through the online provider
- Physical Education

In addition, the following individual courses are NOT approved:

### Literacy Essential Courses

- English as a Second Language
- Language Enrichment courses
- College Preparatory Math
- Personal Finance
- Business Mathematics
- Driver’s Education
- Honors Computational Mathematics
- Honors Introduction to Computer Programming 1
- Honors Introduction to Computer Programming – 2
- AP Computer Science
- Wildlife Biology
- Analysis of Film as Text

It is the students’ responsibility to assure that the courses in which they enroll will be acceptable to the NCAA, and that they meet the other requirements as defined by that association. If a student or parent is unsure of a course’s approval/non-approval status, they should check with their high school counselor prior to enrolling in the class.

Student-athletes aspiring to play college Division I or Division II athletics should obtain a copy of the “NCAA Guide for the College-Bound Athlete” from the School Counseling Office or Athletic Office.

The NCAA list of approved courses is also available on a website at [www.eligibilitycenter.org/](http://www.eligibilitycenter.org/)

Students can register with the NCAA Eligibility Center as early as freshman year.

The NCAA can be reached by calling: 1-877-262-1492 Toll Free

The Mt. Lebanon High School Code is: 393730.

# Online Course Selection for Grades 8 through 11

**Timeline:** The online course selection system will OPEN for student and parent use on Friday, January 27, 2023 at 8am. The online course selection system will CLOSE on Tuesday, February 7, 2023 at 8am. Please complete course selections during this timeframe. The online course selection system is NOT a priority registration system. Students may complete and update selections throughout the window (Jan. 27 – Feb. 7) without impacting the likelihood of entrance into a course.

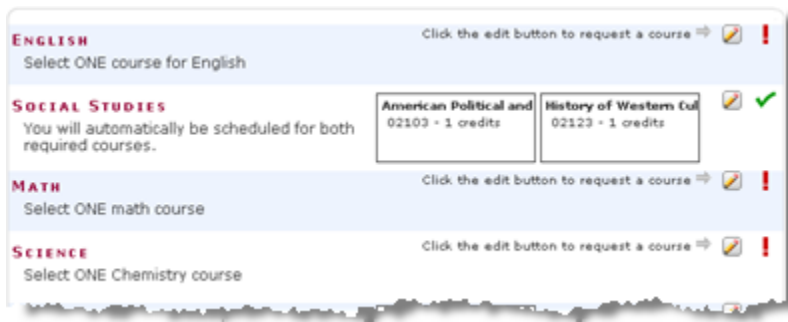
**Reminder:** If any changes need to be made to student course requests or you experience scheduling difficulties, please email your high school counselor directly or contact the High School Counseling Office at (412) 344-2053.

**Step 1:** Once logged in to Dashboard, click the Course Selection icon from the menu bar to begin. If you do not see this icon, the course selection period may have ended.



from

**Step 2:** The Course Selection screen will appear as shown below.



## Legend:




Open Course Request pop-up window.





Course Requests complete for this group.




Number of required course requests not yet met.

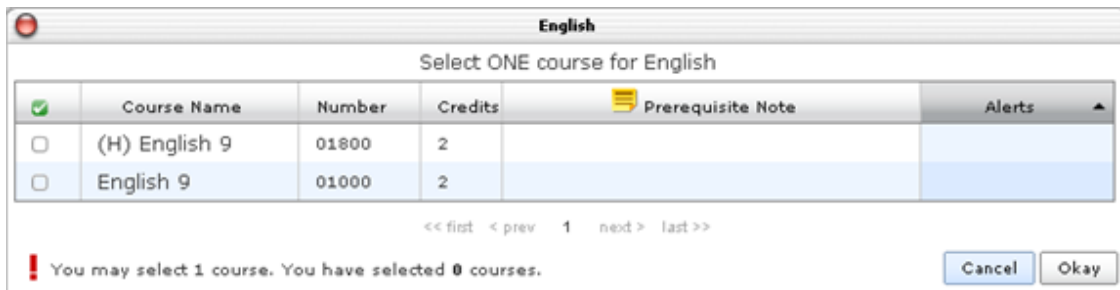
**Example above:** In the example screen shown above, English, Math, and Science still require course selections. Click the pencil button (  ) to edit course requests for the corresponding group.

Social Studies has two core classes pre-selected already, American Political and Economic Systems and History of Western Cultures. These two Social Studies classes are required for this grade and are automatically scheduled. A checkmark (  ) indicates that the Social Studies class group is complete.

Classes marked with an exclamation point (  ) do not have the required number of courses selected, or have more courses selected than the maximum allowed.



**Step 3:** Click the pencil button (  ) to open the course request screen. This pop-up window should look like the screen shown at the top of the next page.

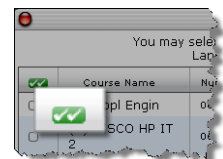


The bottom of the pop-up window will indicate the number of courses the student is permitted to request. Simply click on a course to select it then click the **Okay** button to submit the request. Click the pencil button again from the Class Registration screen to change the selection.

**Notes:**

**Sorting** - Click a column heading to sort by that column. For example, to sort by Course Name, click the Course Name column heading.

**Multiple Selections** - Two check marks at the top of the first column indicate that more than one course can be selected.



**Step 4:** Once all course selections are complete, no red exclamation points should appear on the Course Selection screen.

Click the Submit button at the bottom of the page to submit all course requests for the next school year.

## Course Selections for 2023-2024 9th Grade

Student Name: \_\_\_\_\_ Student No: \_\_\_\_\_ Grade/Section: \_\_\_\_\_

Use this form to guide you through the course selection process if the on-line course selection system has closed. This form should be detached and submitted to the School Counseling Office if on-line selections are unable to be completed.

1. Check (✓) course selections on the next page. *The minimum load required per semester is 5 courses and physical education or dance.* Use the sample schedule below as a guide.
2. Select at least two alternate elective choices and list them below. Alternate choices will be assigned in the case of a scheduling conflict or the cancellation of a course due to lack of enrollment.

	Required Selections	Semester A	Semester B
1	Lunch	Lunch	Lunch
2	Social Studies	American Political and Economic Systems	History of Western Cultures
3	Physical Education or Dance	PE ( 2 day) or Dance 1 (2 day)/ Science Lab (1 day)/Study Hall (2 day)	PE ( 2 day) or Dance 1 (2 day)/ Science Lab (1 day)/Study Hall (2 day)
4	Science		
5	English		
6	Math		
7	Electives (1 full year or 2 semester courses)		
8	Electives (1 full year or 2 semester courses)		

*\*Required Courses are already listed.*

### Alternate Elective Choices:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## GRADE 9

S = Semester    FY = Full Year    Check (✓) course requests.

All students will take *History of Western Cultures and American Political and Economic Systems*.

Select either *Physical Education* or *Dance*.

For your electives, you may select 2 full year electives, 1 full year and 2 semester electives, or 4 semester electives

ENGLISH (Select 1 FY course)		
	FY	1000 English 9
	FY	1800 (H) English 9
	S	1503 Journalism 1
	S	1543 Journalism Production
	S	1563 Yearbook Production
MATHEMATICS (Select 1 FY course)		
	FY	3240 Algebra 1
	FY	3250 Geometry
	FY	3260 (H) Geometry
	FY	3360 (H) Algebra 2
	S	3718 (H) Introduction to Computer Programming - 1
	S	3728 (H) Introduction to Computer Programming - 2
SCIENCE (Select 1 FY Course)		
	FY	4210 Chemistry
	FY	4220 (H) Chemistry
	FY	4305 Physics
	FY	4320 Honors Physics
	FY	4350 AP Physics 1
	S	4513 (H) Science Technology Engineering Math Exploration (STEM-X)
SOCIAL STUDIES (Required)		
✓	S	2103 Am.Pol/Econ Systems
✓	S	2123 History of West Cultures
PHYSICAL EDUC: (Select 1)		
	FY	7940 Physical Education 9 (2 day)
	FY	7063 Dance 1 (2 day)
	FY	7160 Dance Company (Audition Only)
	S	7965 Performance & Wellness
	S	7975 Mindful Movement (2 Day)
WORLD LANGUAGE		
	FY	5210 French 1
	FY	5220 French 2
	FY	5310 German 1
	FY	5320 German 2
	FY	5510 Latin 1
	FY	5610 Spanish 1
	FY	5620 Spanish 2
BUSINESS & INFO TECH		
	S	6093 Tech and Media App
	S	6413 Introduction to Business
	S	6233 Finance

FINE ARTS		
	FY	7200 Concert Choir
	FY	7230 Concert Band
	FY	7250 Wind Ensemble (Audition only)
	FY	7270 Orchestra (strings)
	FY	7280 Orchestra (ww, br, perc, piano)
	S	7313 Music Technology 1
	S	7323 Music Technology 2
	S	7433 Tech Theatre Co
	S	7503 Speech Communications
	S	7528 Intro to Theatre Arts
	S	7538 Principles of Acting
	S	7548 Principles of Directing
	S	7603 Art 1
	S	7633 Art 2
	S	7743 Media Arts and Production 1
	S	7760 Advanced Media Production
FAMILY AND CONSUMER SCIENCE		
	S	6503 Contemporary Life Management
	S	6513 Child Development 1
	S	6522 Child Development 2
	S	6533 Fashion Arts
	S	6543 Advanced Fashion Arts
	S	6551 Food and Nutrition
	S	6562 Food For Today
	S	6573 Food For Tomorrow
	S	6583 Interior Design and Housing
TECHNOLOGY EDUCATION		
	S	6611 CAD for Architecture 1
	S	6612 Honors CAD for Architecture 2
	S	6631 CAD for Engineering 1
	S	6632 (H) CAD for Engineering 2
	S	6651 CISCO HP IT Essentials 1
	S	6662 (H) CISCO HP IT Ess. 2
	S	6691 Introduction to Woodworking
	S	6692 Advanced Woodworking
	S	6741 Graphics Design 1
	S	6742 (H) Graphics Design 2
	S	6763 Robotics in Power Technologies
	S	6653 Robotics in Power Tech. 2
	S	6851 Applied Engineering 1
	S	6862 (H) Applied Engineering
Parkway Career & Technology Center		
	FY	8600 Parkway Career & Technology Center AM

## Course Selections for 2023 - 2024 10th Grade

Student Name: \_\_\_\_\_ Student No: \_\_\_\_\_ Grade/Section: \_\_\_\_\_

Use this form to guide you through the course selection process if the on-line course selection system has closed. This form should be detached and submitted to the School Counseling Office if on-line selections are unable to be completed.

1. Check (✓) course selections on the next page. *The minimum load required per semester is 5 courses and physical education or dance.* Use the sample schedule below to guide you.
2. Select at least two alternate elective choices and list them below. Alternate choices will be assigned in the case of a scheduling conflict or the cancellation of a course due to lack of enrollment.

	Required Selections	Semester A	Semester B
1	Lunch	Lunch	Lunch
2	Social Studies	World Cultures or AP Human Geography	World Cultures or AP Human Geography
3	PE/Dance	PE (2 days) or Dance 2 (2 days)/Science Lab (1 day)/Study Hall (2-day)	PE (2 days) or Dance 2 (2 days)/Science Lab (1 day)/Study Hall (2-day)
4	Science		
5	English		
6	Math		
7	Electives (1 full year or 2 semester courses)		
8	Electives (1 full year or 2 semester courses)		

*\*Required Courses are already listed.*

### Alternate Elective Choices:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## GRADE 10

S = Semester      FY = Full Year      Check (✓) course selections.

All students will take 2 semesters of World Cultures or AP Human Geography. Select either PE or Dance.

Elective choices: you may choose either 2 full year electives, 1 full year and 2 semester electives, or 4 semester electives.

<b>ENGLISH (Required)</b>	
FY	1100 English 10
FY	1810 (H) English 10
S	1503 Journalism 1
S	1543 Journalism Production
S	1563 Yearbook Production
S	1613 Imaginative Writing
S	1623 Imaginative Writing Production
S	1423 Fiction
S	1603 Composition
<b>MATHEMATICS (Required)</b>	
FY	3240 Algebra 1
FY	3250 Geometry
FY	3260 (H) Geometry
FY	3350 Algebra 2
FY	3360 (H) Algebra 2
FY	3420 (H) PreCalculus
FY	3430 (H) Adv. PreCalculus
S	3718 Introduction to Computer Programming –1
S	3728 (H) Introduction to Computer Programming – 2
S	3530 AP Statistics
<b>SCIENCE (Required)</b>	
FY	4110 Biology
FY	4120 (H) Biology
FY	4210 Chemistry
FY	4220 (H) Chemistry
FY	4240 AP Chemistry
FY	4305 Physics
FY	4320 (H) Physics
FY	4350 AP Physics 1
FY	4355 AP Physics 2
S	4513 (H) Science Technology Engineering Math Exploration (STEM-X)
<b>SOCIAL STUDIES (Required)</b>	
FY	2150 AP Human Geography
S	2151/2152 World Cultures
S	2383 Political Science
S	2323 Anthropology
S	2343 Comparative Religions
S	2363 Economics
S	2403 Psychology
S	2413 Intro to Global Studies
S	2468 Positive Psychology
S	2483 (H) Contemporary Domestic Issues

<b>PHYSICAL EDUC: (Required)</b>	
FY	7950 Physical Education 10 (2 day)
FY	7063 Dance 1 (2 day)
FY	7075 Dance 2 (2 day)
FY	7160 Dance Company (Audition only)
S	7903 Health & Wellness
S	7965 Performance & Wellness
FY	7993 PE Partners (2 day)
S	7975 Mindful Movement (2 day)
<b>WORLD LANGUAGE</b>	
FY	5210 French 1
FY	5220 French 2
FY	5230 French 3
FY	5310 German 1
FY	5320 German 2
FY	5330 German 3
FY	5510 Latin 1
FY	5520 Latin 2
FY	5610 Spanish 1
FY	5620 Spanish 2
FY	5630 Spanish 3
<b>BUSINESS &amp; INFO TECH</b>	
S	6093 Tech and Media App
S	6013 Web Page Design
S	6023 Web Page Design 2
S	6033 (H) Web Page Design 2
S	6211 (H) Financial Accounting 1
S	6222 (H) Financial Accounting 2
S	6343 Entrepreneurship
S	6353 (H) Business Law
S	6413 Introduction to Business
S	6233 Finance
<b>FINE ARTS</b>	
FY	7200 Concert Choir
FY	7215 (H) Concert Choir
FY	7230 Concert Band
FY	7250 Wind Ensemble (Audition only)
FY	7300 (H) Wind Ensemble
FY	7270 Orchestra (strings)
FY	7280 Orchestra (ww, br, perc, piano)
FY	7290 (H) Orchestra
S	7313 Music Technology 1
S	7323 Music Technology 2
S	7330 Music Technology 3
FY	7350 (AP) Music Theory

S	7433	Tech Theatre Co
S	7463	Comm. Serv. St. Crew (3 day)
S	7503	Speech Communications
S	7528	Intro to Theatre Arts
S	7538	Principles of Acting
S	7548	Principles of Directing
S	7578	Theatre Workshop
S	7603	Art 1
S	7633	Art 2
S	7653	2-D Studio Arts
S	7673	3-D Studio Arts
S	7683	(H) 2-D Studio Arts
Y	7690	AP Studio Art
Y	7693	(H) 3-D Studio Arts
S	7743	Media Arts and Production 1
S	7760	Advanced Media Production
S	7803	Digital Film Making (5 day)
S	7813	Digital Film Making (4 day)
<b>FAMILY AND CONSUMER SCIENCE</b>		
S	6503	Contemporary Life Management
S	6513	Child Development 1
S	6522	Child Development 2
S	6533	Fashion Arts
S	6543	Advanced Fashion Arts

S	6551	Food and Nutrition
S	6562	Food For Today
S	6573	Food For Tomorrow
S	6583	Interior Design and Housing
<b>TECHNOLOGY EDUCATION</b>		
S	6611	CAD for Architecture 1
S	6612	Honors CAD for Architecture 2
S	6631	CAD for Engineering 1
S	6632	(H) CAD for Engineering 2
S	6651	CISCO HP IT Essentials 1
S	6662	(H) CISCO HP IT Ess. 2
S	6691	Introduction to Woodworking
S	6692	Advanced Woodworking
S	6741	Graphics Design 1
S	6742	(H) Graphics Design 2
S	6763	Robotics in Power Technologies
S	6653	Robotics in Power Tech. 2
S	6851	Applied Engineering 1
S	6862	(H) Applied Engineering
<b>Parkway Career &amp; Technology Center</b>		
FY	8600	Parkway Career & Technology Center AM

## Course Selections for 2023 - 2024 11th Grade

Student Name: \_\_\_\_\_ Student No: \_\_\_\_\_ Grade/Section: \_\_\_\_\_

### **IMPORTANT INFORMATION ABOUT CHOOSING/CHANGING COURSE SELECTIONS**

Use this form to guide you through the course selection process if the on-line course selection system has closed. This form should be detached and submitted to the School Counseling Office if on-line selections are unable to be completed.

1. Check (✓) course selections on the next page. *The minimum load required per semester is 5 courses.* Use the sample schedule below to guide you.
2. Select at least two alternate elective choices and list them below. Alternate choices will be assigned in the case of a scheduling conflict or the cancellation of a course due to lack of enrollment.

	Required Selections	Semester A	Semester B
<b>1</b>	Lunch	Lunch	Lunch
<b>2</b>	Social Studies (US History)		
<b>3</b>	English (American Lit.)		
<b>4</b>	Math		
<b>5</b>	Science		
<b>6</b>	Science Lab	Science Lab (1 day)	Science Lab (1 day)
<b>7</b>	Electives (1 full year or 2 semester courses)		
<b>8</b>	Electives (1 full year or 2 semester courses)		

*\*Required Courses are already listed.*

### Alternate Elective Choices:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## GRADE 11

S = Semester    FY = Full Year    Check (✓) course requests.

**All juniors must take one American Literature course and one US History course.** It is recommended that students carry 6 courses each semester. Most honors and Advanced Placement courses are screened.

ENGLISH		
	FY	1200 Am Lit: Confrontation in America
	FY	1210 Am Lit: Exploring the Am Dream
	FY	1220 Am Lit: Celeb. Am. Individualism
	FY	1820 (H) American Literature
	S	1603 Composition
	S	1423 Fiction
	S	1503 Journalism 1
	S	1543 Journalism Production
	S	1553 Journalism Production (4 day)
	S	1563 Yearbook Production (5 day)
	S	1573 Yearbook Production (4 day)
	S	1613 Imaginative Writing
	S	1623 Imaginative Writing Production
	FY	1840 AP English Language & Composition
	S	1873 Analysis of Film as a Text
MATHEMATICS		
	FY	3250 Geometry
	FY	3350 Algebra 2
	FY	3360 (H) Algebra 2
	FY	3370 College Preparatory Mathematics
	FY	3410 Appl of Functions and Trig.
	FY	3420 (H) PreCalculus
	FY	3430 (H) Adv. PreCalculus
	FY	3505 (H) Business Calculus
	FY	3509 AP (AB) Calculus
	FY	3510 AP (BC) Calculus
	FY	3530 AP Statistics
	S	3572 Personal Finance
	S	3581 Business Math
	S	3603 (H) Mathematical Computation
	S	3613 (H) History of Mathematics
	S	3718 (H) Introduction to Computer Programming – 1
	S	3728 (H) Introduction to Computer Programming – 2
	FY	3850 AP Computer Science A
SCIENCE		
	FY	4210 Chemistry
	FY	4220 (H) Chemistry
	FY	4230 (H) Organic Chemistry
	FY	4240 AP Chemistry
	FY	4305 Physics
	FY	4320 (H) Physics
	FY	4330 AP Physics C: Mechanics
	FY	4350 AP Physics 1

	FY	4355 AP Physics 2
	FY	4110 Biology
	FY	4120 (H) Biology
	S	4133 (H) Human Anatomy & Phys.
	S	4183 Wildlife Biology
	S	4423 Forensic Science
	S	4513 (H) STEM-X
	FY	4150 AP Biology
	S	4053 Astronomy
	FY	4400 Envir. Geoscience
	FY	4410 Envir. Geoscience (AP Env. Sci)
SOCIAL STUDIES		
	FY	2200 US History
	FY	2220 AP US History
	S	2323 Anthropology
	FY	2300 AP European History
	FY	2410 AP Psychology
	S	2443 (H) International Relations
	S	2343 Comparative Religions
	S	2363 Economics
	S	2383 Political Science
	FY	2400 AP US Government and Politics
	S	2403 Psychology
	S	2413 Intro to Global Studies
	S	2468 Positive Psychology
	S	2483 Contemporary Domestic Issues
	FY	2150 AP Human Geography
HEALTH/PE		
	S	7903 Health and Wellness
	S	7963 Seasonal Sports ( 2 day)
	S	7964 Performance & Wellness (4 day)
	S	7965 Performance & Wellness
	S	7975 Mindful Movement (2 day)
	S	7983 Lifeguarding (2 day)
	S	7993 PE Partners (2 day)
	FY	7063 Dance 1 (2 day)
	FY	7075 Dance 2 (2 day)
	FY	7160 Dance Company (Audition only)
WORLD LANGUAGE		
	FY	5210 French 1
	FY	5220 French 2
	FY	5230 French 3
	FY	5240 French 4
	FY	5250 (H) French 4
	FY	5310 German 1
	FY	5320 German 2
	FY	5330 German 3



	FY	5340	German 4
	FY	5350	(H) German 4
	FY	5510	Latin 1
	FY	5520	Latin 2
	FY	5530	Latin 3
	FY	5610	Spanish 1
	FY	5620	Spanish 2
	FY	5630	Spanish 3
	FY	5640	Spanish 4
	FY	5650	(H) Spanish 4
<b>BUSINESS &amp; INFO TECH</b>			
	S	6093	Tech and Media App
	S	6013	Web Page Design
	S	6023	Web Page Design 2
	S	6033	(H) Web Page Design 2
	S	6211	(H) Financial Accounting 1
	S	6222	(H) Financial Accounting 2
	S	6343	Entrepreneurship
	S	6500	AP Macroeconomics
	S	6353	(H) Business Law
	S	6413	Introduction to Business
	S	6233	Finance
<b>FINE ARTS</b>			
	S	7123	Dance 3 (2 days)
	FY	7200	Concert Choir
	FY	7210	Concert Choir (4 day)
	FY	7215	(H) Concert Choir
	FY	7230	Concert Band
	FY	7240	Concert Band (4 day)
	FY	7250	Wind Ensemble (Audition only)
	FY	7260	Wind Ensemble (4 day)
	FY	7300	(H) Wind Ensemble
	FY	7270	Orchestra (strings)
	FY	7280	Orchestra (ww, br, per, piano)
	FY	7290	(H) Orchestra
	S	7313	Music Technology 1
	S	7323	Music Technology 2
	S	7330	Music Technology 3
	S	7340	Music Technology 3 (4 day)
	FY	7350	(AP) Music Theory
	S	7433	Tech Theatre Co
	S	7443	Tech Theatre Co. (4 day)
	S	7463	Comm. Serv. St. Crew
	S	7503	Speech Communications
	S	7528	Intro to Theatre Arts
	S	7538	Principles of Acting
	S	7548	Principles of Directing
	S	7578	Theatre Workshop

	S	7583	Evening Theatre Company
	S	7603	Art 1
	S	7613	Art 1 (4 day)
	S	7633	Art 2
	S	7643	Art 2 (4 day)
	S	7653	2-D Studio Arts
	S	7663	2-D Studio Arts (4 day)
	S	7673	3-D Studio Arts (5 day)
	S	7675	3-D Studio Arts (4 day)
	S	7683	(H) 2-D Studio Arts
	FY	7690	AP Studio Art
	FY	7693	(H) 3-D Studio Arts
	S	7743	Media Arts and Production 1
	S	7760	Advanced Media Prod
	S	7770	Advanced Media Prod (4 day)
	S	7803	Digital Film Making (5 day)
	S	7813	Digital Film Making (4 day)
<b>FAMILY AND CONSUMER SCIENCE</b>			
	S	6503	Contemporary Life Management
	S	6513	Child Development 1
	S	6522	Child Development 2
	S	6533	Fashion Arts
	S	6543	Advanced Fashion Arts
	S	6551	Food and Nutrition
	S	6562	Food For Today
	S	6573	Food For Tomorrow
	S	6583	Interior Design and Housing
	S	6593	Interior Des and Housing (4 day )
<b>TECHNOLOGY EDUCATION</b>			
	S	6611	CAD for Architecture 1
	S	6612	Honors CAD for Architecture 2
	S	6631	CAD for Engineering 1
	S	6632	(H) CAD for Engineering 2
	S	6651	CISCO HP IT Essentials 1
	S	6662	(H) CISCO HP IT Ess. 2
	S	6691	Introduction to Woodworking
	S	6692	Advanced Woodworking
	S	6741	Graphics Design 1
	S	6742	(H) Graphics Design 2
	S	6763	Robotics in Power Technologies 1
	S	6653	Robotics in Power Technologies 2
	S	6851	Applied Engineering 1
	S	6862	(H) Applied Engineering
<b>Parkway Career &amp; Technology Center</b>			
	FY	8600	Parkway Career & Technology Center AM
	FY		CCBC Aviation Program

## Course Selections for 2023-2024 12th Grade

Student Name: \_\_\_\_\_ Student No: \_\_\_\_\_ Grade/Section: \_\_\_\_\_

### IMPORTANT INFORMATION ABOUT CHOOSING/CHANGING COURSE SELECTIONS

Use this form to guide you through the course selection process if the on-line course selection system has closed. This form should be detached and submitted to the School Counseling Office if on-line selections are unable to be completed.

1. Check (✓) course selections on the next page. *The minimum load required per semester is 5 courses.* Use the sample schedule below to guide you.
2. Select at least two alternate elective choices and list them below. Alternate choices will be assigned in the case of a scheduling conflict or the cancellation of a course due to lack of enrollment.

	Required Selections	Semester A	Semester B
1	Lunch	Lunch	Lunch
2	English		
3	Health/Semester Elective		
4	Electives (1 full year or 2 semester courses)		
5	Electives		
6	Electives		
7	Electives		
8	Electives		

**\*Please keep in mind the impact of lab sciences (double periods)  
on the number of elective course selections that you may indicate.**

### Alternate Elective Choices:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

## GRADE 12

S = Semester    FY = Full Year    Place a check (✓) in the box next to your course request.

<b>ENGLISH (Required)</b>	
S	1433 Eng 12: Language of Power
S	1443 Eng 12: Technology & Humanity
S	1453 Eng 12: Expl. of Social Roles
S	1463 Eng 12: Study of Modern Drama
S	1473 Eng 12: Lang. of Natural World
S	1853 (H) European Literature
S	1863 (H) British Literature
FY	1830 AP Eng 12: Lit. and Comp
S	1423 Fiction
S	1503 Journalism 1
S	1543/1553 Journalism Production (4 or 5 day)
S	1563/1573 Yearbook Production (4 or 5 day)
S	1603 Composition
S	1613 Imaginative Writing
S	1623 Imaginative Writing Production
S	1873 Analysis of Film as a Text
<b>MATHEMATICS</b>	
FY	3350 Algebra 2
FY	3360 (H) Algebra 2
FY	3370 College Preparatory Mathematics
FY	3410 Appl of Functions and Trig.
FY	3420 (H) PreCalculus
FY	3430 (H) Adv. PreCalculus
FY	3490 Fundamentals of Calculus
FY	3505 (H) Business Calculus (CHS)
FY	3509 AP (AB) Calculus
FY	3510 AP (BC) Calculus
FY	3530 AP Statistics
FY	3540 (H) Linear Algebra
S	3541 Statistics
S	3552 Finite Math
S	3572 Personal Finance
S	3581 Business Math
S	3603 (H) Mathematical Computation
S	3613 (H) History of Mathematics
S	3718 (H) Introduction to Computer Programming 1
S	3828 (H) Introduction to Computer Programming 2
FY	3850 AP Computer Science A
<b>SCIENCE</b>	
FY	4210 Chemistry
FY	4220 (H) Chemistry
FY	4230 (H) Organic Chemistry
FY	4240 AP Chemistry
FY	4305 Physics
FY	4320: (H) Physics
FY	4330 AP Physics C: Mechanics
FY	4340 AP Physics C: Electricity & Mag

FY	4350 AP Physics 1
FY	4355 AP Physics 2
FY	4400 Environmental Geoscience
FY	4110 Biology
FY	4120 (H) Biology
FY	4150 AP Biology
S	4183 Wildlife Biology
S	4423 Forensic Science
S	4133 (H) Human Anatomy & Physio.
S	4053 Astronomy
S	4513 (H) Science Technology Engineering Math Exploration (STEM-X)
<b>SOCIAL STUDIES</b>	
FY	2150 AP Human Geography
FY	2300 AP European History
S	2323 Anthropology
S	2343 Comparative Religions
S	2363 Economics
S	2383 Political Science
FY	2400 AP Government and Politics
S	2403 Psychology
FY	2410 AP Psychology
S	2413 Intro to Global Studies
S	2443 (H) International Relations
S	2468 Positive Psychology
S	2483 (H) Contemporary Domestic Issues
<b>HEALTH/PE</b>	
S	7903 Health and Wellness
S	7953 Adapted PE (5 day)
S	7963 Seasonal Sports ( 2 day)
S	7964 Performance & Wellness (4 day)
S	7965 Performance & Wellness
S	7975 Mindful Movement (2 day)
S	7983 Lifeguarding (2 day)
S	7993 PE Partners (2 day)
FY	7063 Dance 1 (2 day)
FY	7075 Dance 2 (2 day)
FY	7160 Dance Company (Audition only)
<b>WORLD LANGUAGE</b>	
FY	5210 French 1
FY	5220 French 2
FY	5230 French 3
FY	5240 French 4
FY	5250 (H) French 4
FY	5260 (H) French 5
FY	5270 AP French 5
FY	5310 German 1
FY	5320 German 2
FY	5330 German 3

	FY	5340	German 4
	FY	5350	(H) German 4
	FY	5360	(H) German 5
	FY	5370	AP German 5
	FY	5510	Latin 1
	FY	5520	Latin 2
	FY	5530	Latin 3
	FY	5550	(H) Latin 4
	FY	5610	Spanish 1
	FY	5620	Spanish 2
	FY	5630	Spanish 3
	FY	5640	Spanish 4
	FY	5650	(H) Spanish 4
	FY	5680	(H) Spanish 5
	FY	5670	AP Spanish 5
			<b>BUSINESS &amp; INFO TECH</b>
	S	6093	Tech and Media App
	S	6013	Web Page Design
	S	6023	Web Page Design 2
	S	6033	(H) Web Page Design 2
	S	6211	(H) Financial Accounting 1
	S	6222	(H) Financial Accounting 2
	S	6233	Finance
	S	6343	Entrepreneurship
	S	6353	(H) Business Law
	S	6413	Introduction to Business
	S	6500	AP Macroeconomics
			<b>FINE ARTS</b>
	S	7123	Dance 3 (2 day)
	FY	7200	Concert Choir
	FY	7210	Concert Choir (4 day)
	FY	7215	(H) Concert Choir
	FY	7230	Concert Band
	FY	7240	Concert Band (4 day)
	FY	7250	Wind Ensemble (Audition only)
	FY	7260	Wind Ensemble (4 day)
	FY	7300	(H) Wind Ensemble
	FY	7270	Orchestra (strings)
	FY	7280	Orchestra (ww, br, per, piano)
	FY	7290	(H) Orchestra
	S	7313	Music Technology 1
	S	7323	Music Technology 2
	S	7330	Music Technology 3
	S	7340	Music Technology 3 (4 day)
	FY	7350	(AP) Music Theory
	S	7433	Tech Theatre Co
	S	7443	Tech Theatre Co. (4 day)
	S	7463	Comm. Serv. St. Crew (3 day)
	S	7503	Speech Communications
	S	7528	Intro to Theatre Arts
	S	7538	Principles of Acting

	S	7548	Principles of Directing
	S	7578	Theatre Workshop
	S	7583	Evening Theatre Company
	S	7603	Art 1
	S	7613	Art 1 (4 day)
	S	7633	Art 2
	S	7643	Art 2 (4 day)
	S	7653	2-D Studio Arts
	S	7663	2-D Studio Arts (4 day)
	S	7673	3-D Studio Arts (5 day)
	S	7675	3-D Studio Arts (4 day)
	S	7683	(H) 2-D Studio Arts
	FY	7690	AP Studio Art
	FY	7693	(H) 3-D Studio Arts
	S	7743	Media Arts and Production 1
	S	7760	Advanced Media Prod
	S	7770	Advanced Media Prod (4 day)
	S	7803	Digital Film Making (5 day)
	S	7813	Digital Film Making (4 day)
			<b>FAMILY AND CONSUMER SCIENCE</b>
	S	6503	Contemporary Life Management
	S	6513	Child Development 1
	S	6522	Child Development 2
	S	6533	Fashion Arts
	S	6543	Advanced Fashion Arts
	S	6551	Food and Nutrition
	S	6562	Food For Today
	S	6573	Food for Tomorrow
	S	6583	Interior Design and Housing
	S	6593	Interior Design and Housing (4 day)
			<b>TECHNOLOGY EDUCATION</b>
	S	6611	CAD for Architecture 1
	S	6612	Honors CAD for Architecture 2
	S	6631	CAD for Engineering 1
	S	6632	(H) CAD for Engineering 2
	S	6651	CISCO HP IT Essentials 1
	S	6662	(H) CISCO HP IT Ess. 2
	S	6691	Introduction to Woodworking
	S	6692	Advanced Woodworking
	S	6741	Graphics Design 1
	S	6742	(H) Graphics Design 2
	S	6763	Robotics in Power Technologies 1
	S	6653	Robotics in Power Technologies 2
	S	6851	Applied Engineering 1
	S	6862	(H) Applied Engineering
			<b>Parkway Career &amp; Tech Center &amp; Study Hall</b>
	S	9991	Study Hall - 1 <sup>st</sup> semester
	S	9992	Study Hall - 2 <sup>nd</sup> semester
	FY	8600	Parkway Career & Tech Center AM
	FY		CCBC Aviation Program

## APPENDIX A

### Mt. Lebanon High School Keystone Exam Alternate Pathways Information

Act 158 of 2018 prescribed multiple pathways for students to meet Pennsylvania’s assessment requirement for graduation. These requirements are relevant to the Class of 2023 and beyond.

Act 158 reference:

<https://www.education.pa.gov/K-12/Assessment%20and%20Accountability/GraduationRequirements/Pages/default.aspx>

#### **Pathway 1: Keystone Proficiency**

Students will earn “Proficient” or “Advanced” on the Algebra 1, Biology, and Literature Keystone Exams.

#### **Pathway 2: Keystone Composite**

Students will earn “Proficient” or “Advanced” on at least one (1) Keystone Exam (Algebra 1, Biology, and/or Literature) and earn at least “Basic” on the other two (2) Keystone Exams (Algebra 1, Biology, and/or Literature).

The total numeric, composite score of the three (3) Exams must be at least 4452.

Keystone Exam Cut Scores				
	Below Basic	Basic	Proficient	Advanced
Algebra 1	1200-1438	1439-1499	1500-1545	1546-1800
Biology	1200-1459	1460-1499	1500-1548	1549-1800
Literature	1200-1443	1444-1499	1500-1583	1584-1800

#### **Pathway 3: Career & Technical Education**

Students will meet local requirements for academic content covered by the Keystone Exams (Algebra 1, Biology, Literature) for all subjects in which students did not earn “Proficient” or “Advanced” on the Keystone Exams...	AND	...students will attain an industry-based competency certification related to the career and technical education (CTE) concentrator’s program of study.
	OR	...students will demonstrate a high likelihood of success on an approved industry-based competency assessment or readiness for continued meaningful engagement in the CTE concentrator’s program of study.

#### **Pathway 4: Alternate Assessment**

Students will meet local requirements for academic content covered by the Keystone Exams (Algebra 1, Biology, Literature) for all subjects in which students did not earn “Proficient” or “Advanced” on the Keystone Exams

AND

Students will attain an established score on an approved alternate assessment for all subjects in which students did not earn “Proficient” or “Advanced” on the Keystone Exams (Algebra 1, Biology, Literature).

Alternate Assessment	Established Score
Advanced Placement (AP) Exam*	3
Preliminary Scholastic Assessment Test (PSAT)	970
Scholastic Assessment Test (SAT)	1010
American College Testing (ACT)	21
Armed Services Vocational Aptitude Battery (ASVAB)	Minimum score required to gain admittance to a branch of the armed services in the year the student graduates.

\*Advanced Placement (AP) Exam Equivalents

Algebra 1	
AP Calculus AB AP Calculus BC AP Computer Science A AP Computer Science Principles AP Statistics	AP Physics 1: Algebra Based AP Physics 2: Algebra Based AP Physics C: Electricity & Magnetism AP Physics C: Mechanics AP Chemistry
Biology	
AP Biology AP Environmental Science AP Chemistry	AP Physics 1: Algebra Based AP Physics 2: Algebra Based AP Physics C: Electricity & Magnetism AP Physics C: Mechanics
Literature	
AP English Language & Composition	AP English Literature & Composition

OR

<p>Students will successfully complete a dual enrollment course for academic content for all subjects in which students did not earn “Proficient” or “Advanced” on the Keystone Exams (Algebra 1, Biology, Literature), and according to the following stipulations:</p> <p>Credit-bearing, non-remedial approved concurrent course</p> <p>Aligned to respective Keystone Exam(s)</p> <p>Passing grade on the approved concurrent course</p> <p>High school or college transcript as evidence</p>	O R	<p>Students will successfully complete a pre-apprenticeship program, according to the following stipulations:</p> <p>Specific career training designed to prepare a student for an occupation in an approved schedule of related instruction</p> <p>Program must be registered with the Director Apprenticeship and Training Office at the Pennsylvania Department of Labor and Industry</p> <p>Meets all pre-apprenticeship program requirements, per specific industry requirements</p>	O R	<p>Students will be accepted to a 4-year, nonprofit institution of higher education and have evidence of the ability to enroll in college-level coursework, according to the following stipulations:</p> <p>Acceptance letter from an accredited 4-year, nonprofit institution of higher education</p> <p>Placement test results showing the student may enroll in college-level coursework</p> <p>College registration form confirming enrollment</p> <p>Local profile of an acceptable high school GPA, attendance record, and SAT or ACT score</p>
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**Pathway 5: Evidence-Based (Three [3] Pieces of Evidence)**

Students will meet local requirements for academic content covered by the Keystone Exams (Algebra 1, Biology, Literature) for all subjects in which students did not earn “Proficient” or “Advanced” on the Keystone Exams...

AND at least one (1) of the following:

Attainment of an established score on an alternate assessment:  SAT subject test (630)  ACT WorkKeys (Silver Level)  AP Exam (3)	O R	Acceptance to an accredited 4-year, nonprofit institution of higher education, according to the following stipulations:  Acceptance letter from an accredited 4-year, nonprofit institution of higher education  Placement test results showing the student may enroll in college-level coursework  College registration form confirming enrollment  Local profile of an acceptable high school GPA, attendance record, and SAT or ACT score	O R	Attainment of an industry-recognized credential:  Documentation that verifies attainment as defined by the Office of Elementary and Secondary Education	O R	Successful completion of a dual enrollment or postsecondary course, according to the following stipulations:  Credit-bearing, non-remedial approved concurrent course  Aligned to respective Keystone Exam(s)  Passing grade on the approved concurrent course  High school or college transcript as evidence
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AND up to two (2) of the following:\*\*

Service learning project	AND/ OR	“Proficient” or “Advanced” on a Keystone Exam	AND/ OR	Letter guaranteeing full-time employment	AND/ OR	Internship or cooperative education program	AND/ OR	Compliance with the National College Athletic Association (NCAA) core courses
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\*\*Additional details of this chart are available upon request.