

# **Program of Studies**



**2018-  
2019**

**Lower Moreland  
High School**

## Lower Moreland High School

555 Red Lion Road

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### High School Administration

#### **Mr. William J. Miles**

*Principal*

#### **Mr. Ernie Rehr**

*Assistant Principal, Classes 2019/2021*

#### **Mr. Anthony Veneziale**

*Assistant Principal, Classes 2020/2022*

### Counseling Staff

**Ms. Maura Quinn**, *Department Chair*

**Mrs. Jennifer Romano**

**Mrs. Nicole Specht**

**Mrs. Lindsey McFalls**

**Ms. Mary Kochaba**

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### Mission Statement



The mission of the Lower Moreland Township School District is to foster educational excellence in a nurturing environment that promotes respect for self and others, utilizing community resources, staff, and an innovative curriculum. All students, regardless of ability, will be provided the knowledge, skills, values and attitudes necessary to become life-long learners in a changing world where they will be required to think critically, act responsibly, and communicate clearly.



# LOWER MORELAND HIGH SCHOOL

555 Red Lion Road, Huntingdon Valley, Pennsylvania 19006

*Expanding Horizons...  
Individualizing Excellence*

*Mr. William J. Miles  
Principal*

Dear Student:

This Program of Studies has been designed to assist you in making course selections for the next school year. Used properly, it will help you to determine which courses to take in order to meet graduation requirements, comply with college admissions mandates and occupational objectives, and create a personally fulfilling academic program.

As you begin the planning process, you and your parents/guardians should review all aspects of this booklet very carefully to arrive at decisions which will best fit your own individual abilities, interests, and needs. You are encouraged to select a challenging course of studies in an effort to inspire academic growth and development. Education is a cooperative endeavor and the staff at Lower Moreland High School is prepared to counsel and advise you during this important process.

Since our staffing needs at the high school are predicated upon student course selection, it is extremely important that this process be given appropriate time, effort, and attentive planning on the part of each student and his or her family. Investigate and ask questions early in the scheduling process with the knowledge that your selections are a commitment to specific courses which we will expect you to honor.

The course selection booklet is divided into two parts: Part I, Planning Guide, describes the scheduling process and includes important information about educational requirements; Part II, Course Descriptions, provides detailed course descriptions and includes credit, length of courses, Prerequisites, and grades in which the courses are offered.

Serious thought and consideration must be given to your selections as requests for schedule changes will be honored only in extreme hardship circumstances and with administrative approval.

I extend to you my best wishes as you undertake this important responsibility.

Sincerely,

*William J. Miles*

William J. Miles, Principal  
Lower Moreland High School

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## PART I: THE SCHEDULING PROCESS

### THE SCHEDULING PROCESS

Course selection begins with an overview of the Program of Studies, review of requirements and the scheduling process. Current academic teachers make recommendations for academic placement for the following school year. Students and parents/guardians are then encouraged to discuss the student's individual program and select electives. Counselors are available to discuss individual student plans. Recommendations for course placement are finalized in June.

The high school day has eight instructional periods. All students must schedule according to grade level requirements. Major academic courses are given priority in the computerized scheduling process; electives are added later. Students should choose alternatives to their first elective choice. Be mindful of course Prerequisites and grade level offerings. Minimum grades may be required to move on to a sequential course. The offering of courses depends upon the demand for the course and teacher and classroom availability.

### Course Selection

Course selections are *firm* decisions and should be made thoughtfully.

### Tips on Planning

Students and parents/guardians should consider:

- specific courses and number of credits required for Graduation
- course Prerequisites
- prior successes and failures
- special interests and aptitudes
- future college and career plans

### Changes

All student-initiated changes involving course selection create instructional, staffing, scheduling, and budgetary considerations and, therefore, will be made only when absolutely necessary. From the beginning of the scheduling process in February through the month of June, ample opportunities are provided for students to take an active part in the development of their schedules. **Any requests for changes after the Drop/Add period, including second semester academic electives, will be reviewed and will need administrative approval.** Any exceptions to this practice will not be deemed precedent setting and are intended solely for the purpose of improving a student's overall performance as it relates to academic and emotional growth. After the start of the school year, level changes will be considered if there is a teacher recommendation, and evidence that the student has been inappropriately placed. **No requests for schedule changes will be honored for teacher assignment or student preference.**

### Withdrawal from Course

Withdrawal from a course before the Interim Progress Report, if approved, will result in no notation on the student's transcript. Withdrawal *after* the first three weeks but before the end of the first marking period will result in the course being listed on the student's transcript as withdrew/passing (W+) or withdrew/failing (W-) as determined by the student's performance. Courses dropped during the school year with a (W-) may not be taken in summer school.

### Course Levels

Students are placed in course levels by the professional staff after careful consideration of the student's aptitude and past academic performance. Honors and Advanced Placement courses are available to students, in grades 9 through 12, who meet the course Prerequisites.

### **Change in Course Placement**

Course recommendations are finalized by early June and are mailed home with final report cards. Should the parent/guardian disagree with the recommended placement, a Parent Request for Placement Change may be filed with the student's counselor by July 31<sup>st</sup>, at which time the student's name will be placed on a wait list. Each request will be reviewed by the administration, as no change in placement can be made that will result in an overload of students in a class. Please note: only one course override will be honored per student each academic year. Once a change is approved, the student must remain in the course for the duration of the school year.

### **Credits and Graduation Requirements**

Credit for a subject is granted after a student has satisfactorily completed the course requirements and has satisfied any or all other obligations related to the instructional program. A full year course (2 semesters) receives 1.0 credit toward graduation. A semester course receives 0.5 credit. Other courses receive credit as marked in the course description. For graduation purposes, a unit of credit represents satisfactory completion of a planned course of a minimum of 120 hours of instruction in grades 9-12. Courses which meet fewer than 120 hours, will be awarded fractional credit, e.g., a semester course which meets each day receives 0.5 credit.

### **Required Minimum Number of Credits**

Grade 12 - 5.75 credits	Grade 10 - 5.75 credits
Grade 11 - 6.00 credits	Grade 09 - 6.50 credits

### **LMHS Graduation Requirements**

English	4.0 credits
Social Studies	3.0 credits
Science	3.0 credits
Mathematics	3.0 credits
Physical Education	1.0 credit
Health Education	0.5 credit
Fine/Practical Arts*	1.0 credit
Humanities*	1.0 credit
Art, Music and Culture	0.5 credit
Writing Seminar/Critical Writing	0.5 credit
Personal Finance	0.5 credit
Additional Courses	<u>6.0 credits</u>

**TOTAL** **24.0 credits**

\* For courses which qualify under Fine/Practical Arts and Humanities, see the section entitled *Definitions*.

It should be noted that each of these programs lists the *minimum* number of courses and credits students are required to take during the four-year sequence. It is not unusual for the motivated student or the student who wishes to attend a competitive college to exceed the 24 required credits.

### **Definitions**

To comply with the State Board of Education Curriculum Regulations and to clarify some issues related to requirements explained in this booklet, the following definitions are offered:

### **Planned Course**

Instruction offered by a school entity and delivered to the students enrolled is based on a written plan which consists of at least all of the following:

- A list of learning objectives expected to be achieved by students.
- Content and instructional time needed to reach learning objectives typically consisting of 120 clock hours of instruction, or fraction thereof.
- Expected levels of achievement.
- Procedures for evaluation.

### **Unit of Credit**

For graduation purposes, a unit of credit will represent formal, quantitative recognition by the School Board and the Department of Education of satisfactory completion of a planned course of 120 hours of instruction in grades 9-12. A school district may offer a planned course of fewer than 120 hours and course credit will be awarded based on the fraction thereof.

### **Proficiency in Reading, Writing, and Mathematics**

In compliance with Pennsylvania State Curriculum Regulations, "Students shall demonstrate proficiency in reading, writing and mathematics on either the State assessments administered in grade 11 or 12 or local assessment aligned with academic standards and State assessments under § 4.52 (relating to local assessment) at the proficient level in order to graduate." (PA Chapter 4 § 4.25a). Students performing below proficient in reading, writing and/or mathematics will be required to participate in a program of remediation throughout their senior year and participate in a re-test of the State assessment. Students who are unable to demonstrate proficiency on the grade 12 State assessment will receive additional, targeted remediation, and will be required to show proficiency on Lower Moreland's assessment aligned with academic standards and State assessments *in order to graduate*.

### **Humanities (1.0 Credit)**

Subjects that embrace literature, world languages, history, philosophy, or *additional* courses in English or social studies are humanities courses. Please note that a student may not count the same course for credit to meet more than one graduation requirement.

### **Fine/Practical Arts Requirements (1.0 Credit)**

The purpose of this requirement is to ensure that students who graduate from Lower Moreland High School will have studied subjects which encompass the aesthetic and practical aspects of the curriculum.

The requirement may be fulfilled by taking any fine arts (art, music) course for 0.5 credit, and by taking any practical arts or technology education course, for 0.5 credit, at some time over the four-year period. A student may also meet the requirement by taking a full credit in either art or music. This requirement is *in addition* to the interdisciplinary course in fine arts required of all students.

### **Graduation Project**

All students must successfully complete a graduation project. "The purpose of the culminating project is to assure that students are able to apply, analyze, synthesize, and evaluate information and communicate significant knowledge and understanding." The project is divided into two parts: Part A: Career and Post-Secondary Research and Part B: CAPS. Details of the project will be shared with the students.



### **Course Challenge - Advancement**

Advancement in a discipline's sequence may be obtained by enrolling in a course for original credit (120 hours) and demonstrating mastery of the planned course content of the LMHS course through assessment. All summer/advanced courses must receive *prior* approval and signed permission by the school counselor and parent/guardian. This must be submitted to the school counseling office prior to the last day of school. For a Course Challenge, a raw score of 80% or better (90% or better for honors/AP) must be achieved on a test of mastery prepared by the Lower Moreland High School faculty and administered at the end of the summer by the school counseling department. Results of this test, graded by the appropriate professional faculty member and approved by administration, will be considered final with no re-test privileges. Successful completion of course advancement will enable the student to schedule the next sequential course. *These courses will be listed on the student's transcript. However, no credit will be granted nor will they count in the computation of grade point average or toward fulfilling graduation requirements.*

### **Community Service**

Community Service hours are not required for Lower Moreland students unless a student is a member of the National Honor Society. Many students choose to volunteer on their own in the community. Students are encouraged to log their total number of hours per service activity in their Extracurricular Activities list in Naviance.

### **Summer School**

In the event that a student receives a failing grade in a course, the counselor will notify the student and parents/guardians and recommend appropriate remediation. Grades and credits for remedial summer school work will be counted towards high school requirements and on the student's grade point average, but do not replace the original grade. In order to remediate the course, the student must have completed the course he/she failed. Students who complete a course with below a 55 average cannot remediate in summer school. Please refer to "F" and "R" grades under *Marking Scale*.

### **Marking System**

Report cards are issued on a quarterly basis, and grades are based upon classroom work, assignments and examinations. Final grades are determined by averaging the quarterly grades, midterm and final examination, if applicable. Numerical scores are converted to letter grades for report card purposes and are not shown on report cards or recorded on the student's permanent record. Only final grades are recorded on student transcripts (along with credits earned in each course).

### **Marking Scale**

98 – 100 = A+	77 – 79 = C+
93 – 97 = A	73 – 76 = C
90 – 92 = A-	70 – 72 = C-
87 – 89 = B+	68 – 69 = D+
83 – 86 = B	65 – 67 = D
80 – 82 = B-	55 – 64 = F*
	Below 55 = R** (Repeat Course)

W+ = Withdrew from course passing

W- = Withdrew from course failing

I = Incomplete course: two weeks to complete requirements of course before grade become an F

\*F = 60 hours remedial credit course needed

\*\*R = Must earn 120 hours full *original* credit

## **Testing Policy and Examinations**

Testing is a necessary and important part of a student's secondary education. The main reason for testing is to evaluate how well a student is learning a particular subject. It also provides the teacher with an evaluative instrument with which to monitor and adjust his/her teaching. Examinations take many forms and may vary from department to department and among teachers. It is the student's responsibility to be prepared for examinations, to be present when they are given, and to make them up if they are missed.

For each quarter of the year there is an official testing schedule where *two* subject areas are designated for each day of the week (posted in the virtual back pack). If more than two tests are assigned for one particular school day (three for grades 11 or 12), it is the student's responsibility to notify the teacher(s) whose subject(s) is (are) not designated for that day *prior* to the day of the test. Teachers will make alternative testing arrangements. Midyear and final examinations are given in major academic subjects and account for twenty (20) percent of the student's final grade. Midterm examinations are given in most major subjects and count as ten (10) percent of the student's final grade, with the final examination counting as the other ten (10) percent. The grade received for each quarter of work counts as twenty (20) percent of the final grade.

Midterm and Final Exams are scheduled at the end of each semester for selected English, social studies, math, science, and world language courses. Students must provide documentation in writing from a parent/guardian if they will miss their regularly scheduled exam. Students who have two or more exams scheduled at the same time should make arrangements with their teachers to take one of the exams during one of the "conflict exam times" that are built into the schedule. Requests for alternate testing must be made in writing from the parent/guardian to the principal.

No exam will be given early. Any missed exam without proper documentation may result in a score of 0 on the final exam. Any make-up exams must be completed by the first Friday in August. Exams not made up within the window may result in a score of 0 on the final exam.

## **Honor Roll**

The honor roll for each marking period is determined in accordance with the following standards:

### **Regular Honor Roll**

Any student is eligible who maintains at least a B- average.

### **Distinguished Honor Roll**

Distinguished Honors are awarded to students who maintain at least an A- average.

## **Class Rank and Grade Point Average (GPA) Determination**

The student's grade point average (GPA) is determined by assigning a numerical value (4.33, 4.0, 3.67, 3.33, etc.) to each subject's final letter grade (A+, A, A-, B+, B, etc.), then adding them up and dividing by the number of total credits. All full year and half year courses which meet during the regular school day will count. A weight value of .075 is given for each credit of honors and .15 for a one credit AP course where a grade of C or better has been earned. A .5 AP course will receive a weight value of .075. Using this formula, an unpublished class rank is computed at the beginning of the senior year and again at the end of the first semester.

Beginning with the Class of 2014, .15 additional points will be applied to the unweighted grade point average for each of the **first eight** AP courses taken in which a final grade of C or better has been earned. Additional one credit AP courses will receive .075 weight and .5 AP courses will receive a weight value of .0375 when a final grade of C or better is earned.

The numerical value assigned to each letter grade is as follows:

4.33 = A+	3.33 = B+	2.33 = C+	1.33 = D+
4.00 = A	3.00 = B	2.00 = C	1.00 = D
3.67 = A-	2.67 = B-	1.67 = C-	0.00 = F
			0.00 = R

## **SPECIAL EDUCATION**

### **Gifted Education**

In accordance with the Pennsylvania Department of Education's mandate for gifted programming, the Lower Moreland Township School District has established specific procedures for gifted identification. This formal procedure includes recommendation through the Child Study Team, Multi-Disciplinary Evaluation, and a GIEP planning meeting.

Academically Talented students at the high school may be challenged through participation in a variety of individual opportunities at the high school including Honors Level classes and Advanced Placement classes within the regular education curriculum. Additionally, they may enroll in Virtual High School courses, associations with local colleges and participation in enrichment opportunities. Gifted support services at the high school aim to provide:

- ✓ Academic planning and career investigation.
- ✓ Both small group and individualized meetings which focus on goal-setting, prioritizing, time-management, and leadership skills.
- ✓ Development of individual strengths.
- ✓ Identification of enrichment opportunities including workshops, seminars, and classes students at LMHS and elsewhere.
- ✓ Preparation for post-secondary goals.

### **Learning Support**

Students at the high school level who are identified as having a Specific Learning Disability or Other Health Impairment are instructed in regular education classes with support and monitoring provided by the Special Education staff.

Lower Moreland High School provides Resource Support classes for students with Individualized Education Programs (IEP) to assist in making progress towards their specific IEP goals. These class periods are geared towards helping students gain the skills necessary to achieve academic progress and success.

### **Emotional Support**

Students who are eligible for the emotional support program primarily need assistance with social and emotional development. Students are provided with support to aid them in developing appropriate coping strategies and social skills. Student performance and behavior are carefully monitored, and supportive adjustments are made as necessary to maximize student success.

### **Life Skills**

The Life Skills program is designed to teach practical, functional skills to students with more significant disabilities. There is a focus on academics, vocational skills, and independent living skills, with the overall goal being to help students acquire skills that will allow them to live as independently as possible. Classes include Functional Reading, Functional Math, Functional Science/Social Studies, Community Based Instruction, Job Skills, and Independent Skills.

## **SPECIAL PROGRAMS**

### **Advanced Placement**

Advanced Placement courses are college-level courses offered through College Board. They require a significant amount of study on the part of the student. They carry one full academic credit and they typically meet a minimum of five class periods each week. In addition, the student is required to spend at least one hour on homework for each hour in the classroom. After the student takes the Advanced Placement examination and receives a passing score (3 or better on a 1 to 5 scale), he/she may receive credit for that course in college, depending on the requirements of individual colleges and universities.

*Prior investigation into the philosophy of the college regarding Advanced Placement is highly recommended since all colleges do not recognize Advanced Placement for college credit. This research is the responsibility of the parents/guardians and students, and the information is usually found on [www.collegeboard.org](http://www.collegeboard.org).*

### **Advanced Placement Standards, Criteria, Procedures**

1. All students who enroll in an Advanced Placement course *will be required to take the AP examination* in May (approximate cost: \$90.00 per test).
2. It is strongly advised that students limit the number of AP courses taken in one year to three (3).
3. Students accepted into the AP program will sign a contract agreeing to all conditions set forth, including completion of assignments, maintaining attendance standards, and taking the AP examination.
4. Students will be selected for AP courses based upon the following criteria listed below.
  - AP add-on weight applies to the first eight (8) AP courses. Honors weight will be awarded to any add-on AP courses.
  - Qualified standardized tests scores.
  - Grade of "B" or higher in the most previous course of a similar nature (standards for specific AP courses may be higher).
  - Written recommendation from the appropriate teachers in the academic disciplines.
  - Use of a writing sample to be read by a selection committee, where applicable.
  - Completion of a summer project, where required.
  - Use of standardized admission test, if applicable.

### **Dual Enrollment**

Dual Enrollment means that a student is still in high school and enrolled in a college-level class at the same time; however, the coursework does not fulfill any high school graduation requirement (only college credit is earned). Courses are typically completed outside normal secondary school hours. In certain cases, rising seniors may be approved to concurrently earn credit through the Dual Credit program, which can be referenced in Board Policy 124.

### **Virtual High School (VHS)**

Virtual High School classes take place entirely over the Internet and allow students to engage with peers from around the globe about subjects they are truly passionate about learning. Students need to be intrinsically motivated, independent learners, and have excellent reading, writing and time management skills, as well as, basic computer skills, in order to succeed in this environment. Through VHS students are able to:

- Take high school classes online, entirely over the internet.
- Enjoy small class sizes and low student to teacher ratios.

- Engage in unique collaboration opportunities with peers from around the world.
- Exchange ideas across cultural and geographic boundaries.
- Participate in courses that are highly desired and from a variety of disciplines that are not typically offered locally.

VHS courses are only available to students in grades 10, 11 and 12 and are designed to supplement and extend our curricular offerings. All VHS course enrollments must be approved by school counselors and are considered LMTSD courses (though they are designated on transcripts as VHS). Accordingly, they are factored into student GPA's and weighted when appropriate. Please see [www.govhs.org](http://www.govhs.org) for more information.

Steps for requesting a VHS course:

1. Complete VHS registration request form (found in the school counseling office or VHS site coordinator's office) and return to the VHS Site Coordinator by March 1.
2. A committee made up of school counselors and the VHS Site Coordinator will review registration requests and determine student eligibility.
3. Students will be notified of approved course enrollment through the regular course verification process.

### **National Honor Society**

The George S. Robinson Chapter of the National Honor Society at Lower Moreland High School recognizes and fosters academic achievement, scholarship, character, service, and leadership. Membership conveys both an honor and obligation. Selection to the NHS is open to students at the end of the sophomore and junior years. All students with an unweighted cumulative grade point average of 3.25 or better or are determined to be in the top two deciles of the class, are eligible for consideration. An eligibility list is posted. Students then complete a form documenting school and community activities. Faculty members provide input regarding character and leadership. A committee of five faculty members and the sponsor(s) of the NHS meet to consider prospective members. Students then are informed of their status regarding admission

### **Library Media Center**

Lower Moreland High School's Library Media Center is a vital component of our school's total educational program and has become the **information and digital resource center** for students, both in school and from home, through the Library's home page. The focus of our library program is to help students acquire good **information, visual and digital literacy skills** necessary to succeed in the 21<sup>st</sup> century; a highly competitive, global and digital world. Through the help of librarians and teachers, our students learn to become more proficient in finding, analyzing, synthesizing, and critically evaluating information from the Internet, multimedia resources, primary sources, and print books. The Library's collection consists of approximately 12,000 print books, including e-Book versions of reference books, 18 Nooks for fiction and nonfiction eBooks, 40 different magazines and newspapers, DVDs, video databases, audio books and music on CDs. We also subscribe to over 30 online curriculum-based databases, which help students find the most reliable, current, and unbiased information for research projects. Many target the auditory or visual learner and have and can be used on mp3 players within the databases so students can listen to articles being read. All databases are accessible from home through a log in and password. We also subscribe to *LearningExpressLibrary.com*, which provides free ACT, SAT and AP tutorials and practice tests. Students have access to 56 computers in the Library and Media Lab, with special software that enables them to edit video or use programs like Adobe Design CS5 and Dreamweaver for web design. They also have access to scanners, networked printers including a color printer, and camcorders for loan.

## **ACTIVITIES**

### **Athletic - Interscholastic**

#### **Boys' Sports**

Baseball  
Basketball  
Cross Country  
Football  
Golf  
Soccer  
Swimming  
Tennis  
Track  
Winter Track  
Wrestling

#### **Girls' Sports**

Basketball  
Cheerleading  
Cross Country  
Field Hockey  
Lacrosse  
Soccer  
Softball  
Swimming  
Tennis  
Track  
Winter Track

### **Extra and Co-Curricular Activities**

The following is a listing of activities that are currently available for a student at Lower Moreland High School:

Academic Decathlon	Math Club
Art Club	Mini-Thon
Band (Jazz, Pep)	Mock Trial
Buddy Club	National Honor Society
Chess Club	News Studio
Choir (Concert, Honors)	Newspaper – Lion's Roar
Debate	Orchestra
Diversity Council	SADD
Drama	Science Club
Elmleo (Yearbook)	Spanish Club
Environmental Club	Stage Crew
French Club	Stars & Stripes
Future Business Leaders of America	Student Council
German Club	TASC
GSA	Tech Crew
Interact (Rotary)	SkillsUSA
JSU	Volleyball
Lemon Club	World Affairs Council
Lion's Roar	
Literary Magazine	

*Lower Moreland High School is accredited by the Middle States Association of Colleges and Schools.*

## **SCHOOL, COLLEGE AND COMMUNITY COUNSELING SERVICES**

The Lower Moreland High School Counseling Department endorses the District's belief in *fostering individual excellence in a nurturing environment*. As students enter ninth grade, they are assigned to a particular **school counselor** (Mrs. Romano, Ms. Quinn or Mrs. Specht) for the next four years. School counselors, in alignment with the standards of the American School Counselor Association, meet with students individually and collectively both in large groups as well as in the classroom setting. School counselors target the areas of *academic advising, personal and social development* as well as *college and career readiness*. Each school counselor also assumes a variety of specialized roles and responsibilities not limited to but including: PSAT and AP coordination, scholarship and enrichment opportunity organization and liaison to NCAA and Eastern Center for Arts and Technology (ECAT). The 2018-2019 school counselor assignments are as follows:

	Mrs. Jenn Romano	Ms. Maura Quinn	Mrs. Nikki Specht
9	A - Gran	Grat – N	O-Z
10	A - Feld	Feli - Mor	Mos - Z
11	A – Joh	K – N	P - Z
12	A – Jur	K – Rin	Ris - Z

All students in grades nine through twelve have access to our **College and Career Counselor**, who delivers information to students through individual appointments as well as in large groups and in the classroom setting. Similarly, all students have access to our **Community Counselor**, who specifically meets with students about mental health topics. The Community Counselor also serves as coordinator of our Student Assistance Program (SAP). SAP is a state-mandated program designed to address social, emotional and substance-related barriers to learning.

All counselors are a part of the responsive services team and available to assist individual students in times of need and crisis. Counselors are trained and certified members of SAP. Counselors also serve on the Child Study Team, which meets regularly and is designed to address academic needs of students.

To make an appointment with one of our school or college counselors, students may see the Administrative Assistant in the School Counseling Office or email his or her counselor directly. The community counseling office is open during school hours, Monday – Friday. Students may access services as needed without an appointment.

## **COLLEGE COUNSELING AND TECHNOLOGY**

The counseling team strongly believes in the importance of integrating technology in the delivery of curricula. All students have access to a personalized **Naviance** account where they can simultaneously develop an electronic portfolio while using the tools to assess their own areas of interest and aptitude. Naviance is often utilized in the college research process and is the means by which most college application materials are sent to colleges and universities. Students also register to meet with visiting college admission representatives through Naviance.

In addition to Naviance, students have access to a grade-specific **Google classroom**. School and college counselors will regularly post information on topics including but not limited to: *college admission testing, test preparation, college research, scholarships and enrichment opportunities*.

For more information about school, college and community counseling programs and resources as well as current announcements, please visit our newly re-designed **website**.

**PARENT/GUARDIAN REQUEST FOR PLACEMENT CHANGE**

Student's Name \_\_\_\_\_

Grade \_\_\_\_\_

**PURPOSE OF RECOMMENDED PLACEMENT**

Lower Moreland High School offers courses in the major content areas that are diversified based on ability and achievement. Established criteria are considered by professional staff as they recommend placement in classes for the following year.

**EXCEPTIONS TO PLACEMENT**

There are some cases, on an infrequent basis, in which a student or parent/guardian desires a change to the recommended placement. In such cases, a request for change in placement may be made. Depending on availability of seats, the student may be placed on a wait list. By late August, students on the wait list will be rank ordered, based upon past performance in reference to the standards for placement set by discipline and may be admitted to the course depending upon availability of space. Please note that no change in placement can be made that will result in an overload of students in a class.

In order to begin this process, the Parent/Guardian Request for Placement Change form must be completed and returned to the School Counseling Office by August 3. **Please note: only one course override will be honored per student each academic year.**

.....

I have read the Parent/Guardian Responsibility for Student Placement statement and I fully understand the implications of requesting a change in course placement. I understand that my child will be placed on a wait list and based on space availability, after an evaluation process, may or may not be scheduled into the desired course. Furthermore, if a change in placement is approved I agree to accept the responsibility for this placement and I understand that my son/daughter will remain in the new class for the duration of the current school year. It is understood that the student will receive support for the course at the same level as others in the class.

\_\_\_\_\_  
Course Recommended

\_\_\_\_\_  
Course Requested

\_\_\_\_\_  
Counselor Signature                      Date

\_\_\_\_\_  
Parent/Guardian Signature                      Date

<b>Approved:</b>	<b>Not Approved:</b>
_____ Principal Signature                      Date	_____ Principal Signature                      Date



## **PART II: COURSE DESCRIPTIONS**

### **ART**

The Visual Arts Department offers a variety of courses that may be taken to fulfill Lower Moreland's graduation requirement in the Fine/Practical Arts while enriching and expanding the student's aesthetic horizons and creative talents. For students contemplating careers in art or art-related professions, the department offers a more intensive program that includes Honors and Advanced Placement courses.

### **ART SCHOOL PREPARATION**

In the last decade opportunities for careers in the visual arts have expanded enormously. The development of the digital/computer graphics field now allows students to be successful in the arts even though they may not have the traditional artistic skills of drawing and painting. In order to apply to **any kind of art program** the student needs a portfolio. A portfolio usually consists of 12-15 pieces of the best artwork that a student has done. It should show a range of different media and approaches such as observational drawings, paintings, photography, ceramics and computer graphics. Most schools require large (18" x 24") observational drawings demonstrating still life, perspective and figure drawing. If the student is applying for Computer Graphics or Photography, some schools are more flexible about these requirements, but only to some degree. The school still wants to see evidence of drawing skills. Art programs that are within a university also require a portfolio. The portfolio needs to be complete by December of the senior year. Learning these skills takes time and any students with any artistic aspirations should take drawing and painting classes well before the senior year in order to be prepared. If you have an interest in the arts, even if at this time it seems remote, please talk to the art teachers and guidance counselors about the best courses to take to be prepared for the future.

### **7676 ART, MUSIC AND CULTURE**

**One Semester .5 Credit**

Team taught by members of Lower Moreland's Art and Music Departments, this course offers all students, regardless of talent or ability, the opportunity to engage in critical thinking and creative output in the arts. In a culture in which many students are consumers of art and music, this course presents a case for being creators of art and music as well. Throughout the course, students will examine various art forms through the perspective of identity, expression, storytelling, impact, and reaction. Students participate in the arts as they perform and create work both alone and in groups. The course culminates in a show at the end of each semester. Grades 9, 10, 11, 12. Required for graduation.

### **7261 ART HISTORY – HONORS**

**Full Year 1 Credit**

This course is designed for the student who has an interest in the visual arts and also enjoys history and culture. The course will explore the history of art from pre-history to the present and will include western art history as well as a multicultural world view. The goal is to enable students to sensitively, critically, and intelligently view historical and cross-cultural works of architecture, painting, sculpture, and other visual art forms. The course will include writing, object analysis, research, and hands on related art projects. Students who enjoy the visual arts and history should consider this course. Prerequisite: B in previous art classes. Grades 9, 10, 11, 12.

### **7165 INTRODUCTION TO THE STUDIO ARTS**

**One Semester .5 Credit**

This is an entry-level course that explores both two-dimensional and three-dimensional art. The curriculum provides a broad base of art experiences including design, drawing, printmaking,

painting, sculpting, and the graphic arts. Craftsmanship, creativity, aesthetics and art history are integral components of this introductory course. Grades 9, 10, 11, 12.

### **7166 DRAWING & PAINTING I**

**One Semester .5 Credit**

Drawing is the foundation of all art and design areas. This course is an introduction to the basic skills and concepts used in drawing, painting and two-dimensional design. Observational drawing will be emphasized in this course. Students will be introduced to skills and concepts such as perspective, portrait and figure proportions, and composition. Students will also have the opportunity to explore various drawing and painting media such as charcoal, pastel, watercolor and acrylic. Creative thinking, art history and aesthetics will also be explored. This course is highly recommended for all students interested in pursuing advanced art courses at LMHS or interested in studying art or design in college. Grades 9, 10, 11, 12.

### **7167 DRAWING & PAINTING II**

**One Semester .5 Credit**

This course is an expansion of the two-dimensional skills (drawing, painting, printmaking and design) introduced in Drawing and Painting I. Creative thinking, technical skills, compositional skills, media exploration, art history and aesthetics will be further developed in this course. Prerequisite: B in course #7166. Grades 9, 10, 11, 12.

### **7168 DRAWING & PAINTING III/PORTFOLIO PREP**

**One Semester .5 Credit**

This course is designed for the student who wishes to concentrate on drawing, painting and printmaking on an advanced level. In addition to creative problem solving, art historical and aesthetic ideas will also be integral to this course. This course will assist students in developing a strong art portfolio for either admission to college level art programs or as preparation for the AP Studio Art course. Students interested in taking AP Studio Art in Drawing & Painting are strongly urged to take this course to begin developing a portfolio. Prerequisite: B in all previous art classes including at least one full year of drawing & painting, or written permission from the instructor. Grades 10, 11, 12

### **7169 DRAWING & PAINTING IV**

**One Semester .5 Credit**

This course is designed as a continuation of Drawing & Painting III and is for the student who wishes to concentrate on drawing, painting and printmaking on an advanced level. Art historical and aesthetic ideas will also be integral parts of this course. (Students interested in applying for AP Studio Art in Drawing & Painting are strongly urged to take Drawing & Painting III & IV or Honors to begin developing a portfolio.) Prerequisite: B in Drawing & Painting III. Grades 10, 11, 12.

### **7161 DRAWING & PAINTING – HONORS**

**Full Year 1 Credit**

This course is designed for the student who wishes to concentrate on drawing, painting and printmaking on an advanced level. In addition to creative problem solving, art historical and aesthetic ideas will also be integral to this course. This course will assist students in developing a strong art portfolio for either admission to college level art programs or as preparation for the AP Studio Art course. (Students interested in taking AP Studio Art in Drawing & Painting are strongly urged to take this course to begin developing a portfolio.) Prerequisite: B in all previous art classes including at least one semester of drawing & painting, or written permission from the instructor. Grades 10, 11, 12.

### **7160D AP STUDIO ART – DRAWING/2D DESIGN**

**Full Year 1 Credit**

This course is designed for the student who wishes to concentrate in two-dimensional visual art with an emphasis on drawing, painting and 2D design. In this course, students will complete a portfolio of work that will be submitted to the College Board for review. The portfolio is divided

into sections which must exhibit quality, concentration and breadth. Work outside of class is required to complete assignments which will include various techniques and approaches to creative problem solving. Art historical and aesthetic ideas will also be integral parts of this course. Prerequisites: B+ in all previous studio art courses including at least one full year of drawing & painting and written permission from the instructor. A summer assignment is required for this course. Grade 11, 12.

### **7269 INTRODUCTION TO DESIGN**

**One Semester .5 Credit**

This course is an introduction to the various areas of two dimensional design. Students will explore design through drawing, painting, collage, computer graphics and photography. We will explore traditional areas of design that surround us every day such as graphic design, fashion design, architecture and advertising on an introductory level. This course focuses on a designer's role in creatively and effectively solving problems that are often presented by clients in the real world. Integral components of this course include art production, creative problem solving, design history and aesthetics. Grades 9, 10, 11, 12.

### **7275 DESIGN FOR THE 21<sup>ST</sup> CENTURY**

**One Semester .5 Credit**

This course introduces students to innovative design media of the 21st century. Students will explore the current trends in design on an introductory level. Like designers in the real world, students will be challenged to push the boundaries of their imagination while considering the need to reduce, reuse and recycle. Good designers of today must consider the cultural and environmental impact of their designs on tomorrow. Integral components of this course include art production, creative problem solving, design history and aesthetics. Grades 9, 10, 11 and 12.

### **7577 COMPUTER GRAPHICS I**

**One Semester .5 Credit**

This course uses the industry standard programs, Adobe Photoshop and Adobe Illustrator, to explore the creation of computer-generated artworks. The fundamentals of graphic design and creative problem solving are integral components of this course. Students will learn how to manipulate imagery and use visual language to communicate thoughts and ideas. Grades 9, 10, 11, 12.

### **7578 COMPUTER GRAPHICS II**

**One Semester.5 Credit**

This course is an extension of the creative, technical and communication skills taught in Computer Graphics I. The emphasis is on developing more advanced technical skills and concepts which are essential if the student wants to further their creative problem solving skills or take classes at the Honors or AP level. Students will also examine the work of influential artists to help them develop a more sophisticated art aesthetic. Prerequisite: B in Computer Graphics I. Grades 9, 10, 11, 12.

### **COMPUTER GRAPHICS – HONORS**

**7271E Full Year 1 Credit**

**7271E5 One Semester .5 Credit**

This course is for students who have successfully completed Computer Graphics I and II and wish to continue their exploration of the digital arts. The honors level involves greater commitment and can be taken for a whole year or a semester. It can be an excellent preparation for Computer Graphics at the AP level. Students will be required to improve their technical skills but more importantly their understanding of computer graphics as an art form and as a means of artistic expression. Prerequisite: Permission from the teacher. Grades 10, 11, 12.

**7160C AP STUDIO ART – COMPUTER GRAPHICS****Full Year 1 Credit**

This course is for students who want to concentrate on the Visual Arts. The AP curriculum requires portfolios which show both breadth and in depth work on a concentration or theme. Students are expected to add to their understanding of aesthetic ideas and to put in time out of class. Prerequisite: permission from the teacher. A summer assignment is required for this course. Grades 10, 11, 12.

**7265 PHOTOGRAPHY I****One Semester .5 Credit**

This is an introductory course where students will learn the basics of taking digital photographs, editing digital images in Adobe Photoshop, and printing completed artworks. There is an emphasis on the principles of visual design to create well composed images. This course allows students to use their imagination and develop their creativity while learning the key features of Adobe photographic software. Students need a good quality digital camera with manual controls or a digital SLR. Grades 9, 10, 11, 12.

**7266 PHOTOGRAPHY II****One Semester .5 Credit**

This course is an extension of the skills taught in Photography I, with an emphasis on increased mastery of the camera, the computer and printing. Students will develop a more sophisticated technique as they examine the work of photographers working today and throughout history. Students will need a good quality digital camera with manual controls or a digital SLR. Prerequisite: B in Photography I. Grades 9, 10, 11, 12.

**PHOTOGRAPHY – HONORS****7271P Full Year 1 Credit****7271P5 One Semester .5 Credit**

This course allows the student to do advanced work in Photography. It can also be a stepping stone towards AP status. If this is the case the honors course should be taken in the junior year. The honors level involves significantly more commitment and will require time out of school. Students will improve their technical skills, but more importantly their understanding of photography as an art form and as a means of artistic expression. Prerequisite: Permission from the teacher. Grades 10, 11, 12.

**7160P AP STUDIO ART – PHOTOGRAPHY****Full Year 1 Credit**

This course is for students who want to concentrate on the Visual Arts. The AP curriculum requires portfolios which show both breadth and in depth work on a concentration or theme. Students are expected to develop their understanding of aesthetic ideas and increase their ability to express them through the medium of photography. Prerequisite: permission from the teacher. A summer assignment is required for this course. Grades 10, 11, 12.

**7468 SCULPTURE****One Semester .5 Credit**

Sculpture is an introductory course that provides a survey of basic knowledge and skills used to create three-dimensional works of art. Students will explore wood, paper, clay and found objects to construct sculptural (three-dimensional) art forms. Craftsmanship, creativity, aesthetics and art history are integral components of this course. Grades 9, 10, 11, 12.

**7375 CERAMICS I****One Semester .5 Credit**

This course is designed to introduce the student to clay hand-building, the pottery wheel, and surface decorating techniques. Both functional and sculptural uses of clay are explored with an emphasis on effort and project craftsmanship. The origins of the ceramic medium and key artists will be introduced. Grades 9, 10, 11, 12.

**7376 CERAMICS II****One Semester .5 Credit**

This course is designed for students who have previously completed Ceramics I and wish to further their knowledge and interest in both hand-building and pottery wheel techniques. Craftsmanship, creativity, aesthetics and art history are integral components of this course. Prerequisite: B in Ceramics I or department approval. Grades 9, 10, 11, 12.

**7377 CERAMICS III****One Semester .5 Credit**

This course is an extension of the skills and techniques taught in Ceramics I and II to create functional and sculptural ceramic artwork. Students will continue to develop their knowledge of craftsmanship, creativity, aesthetics and art history with emphasis on project quality and consistency of results. Prerequisite: B in Ceramics II or departmental approval. Grades 10, 11, 12.

**7378 CERAMICS IV****One Semester .5 Credit**

This course is designed for students who have completed Ceramics III and wish to further their experience and knowledge in various phases of ceramic art. Students will continue their exploration of ceramic ideas, concepts and techniques with an emphasis on quality and consistency of results. Experimentation will be stressed to develop a unique personal expression in the use of this medium. Students wishing to pursue ceramics further can sign-up for Art Concentration – Honors (7271C or 7271C5) or Advanced Placement Studio Art (7160) after successful completion of this course. Prerequisite: B in Ceramics III or department approval. Grades 10, 11, 12.

**CERAMICS – HONORS****7271C Full Year 1 Credit****7271C5 One Semester .5 Credit**

Honors ceramics is designed for advanced students who have completed Ceramics IV and wish to further their experience and knowledge of the ceramic arts. The honors level involves significantly more time and commitment and can be taken for a whole year or one semester. Work out of class is required to complete assignments. Prerequisite: B+ average in Ceramics IV and permission from the instructor. Grades 11, 12.

**7160S AP STUDIO ART – SCULPTURE OR CERAMICS****Full Year 1 Credit**

AP Studio Art Sculpture or Ceramics is a demanding college level course for the advanced art student who has completed Ceramics IV or Sculpture and wishes to further their experience and knowledge of these media. Work out of class is required to complete assignments. Upon completion of this course, students will take the Advanced Placement examination offered by the College Board and submit a completed portfolio of their artwork. Prerequisite: B+ average in Ceramics IV or Sculpture and permission from the instructor. A summer assignment is required for this course. Grade 12.

**BUSINESS EDUCATION****6675 ACCOUNTING I****Full Year 1 Credit**

This one year course is designed to provide students with a strong foundation in accounting concepts for students considering careers in Business. These concepts prepare students to see first-hand how businesses plan for and evaluate their operating, financial, and investing decisions and how accounting systems gather and provide data to internal and external decision makers. Students will be able to keep systematic records, analyze, record and interpret business

transactions through simulations, practice sets, and case studies. Students will learn how to prepare financial statements both manually and on a computerized program. Grades 10, 11, 12.

### **6676 MARKETING**

**One Semester .5 Credit**

This course is designed to give students an understanding of marketing and business. Students will explore the marketing process and discover how major businesses operate within the marketing system. Topics include marketing strategy, opportunities, consumer behavior, segmentation and the marketing mix. Grades 10, 11, 12.

### **6678 ENTREPRENEURSHIP**

**One Semester .5 Credit**

This course will take students step-by-step through the entire process of owning and managing a business. They will learn to identify and meet a market need, and work through planning, financing, hiring, and managing a business. Grades 10, 11, 12.

### **6674 PERSONAL FINANCE**

**One Semester .5 Credit**

This course is essential for students to make the most of their money today, as well as looking to the future. In this course students acquire the necessary skills to promote sound financial habits and create an awareness of the steps necessary to secure their financial futures. Careers, budgeting, money management, taxes, credit, insurance and investing for retirement are some of the major topics of this class. Students will participate in on-line learning activities as well as developing a strategy for their own financial plan. Grades 10, 11, 12.

## **COMPUTERS/TECHNOLOGY**

### **3885 WEB SITE DESIGN**

**One Semester .5 Credit**

This course will teach students about the design and writing of professional-looking web sites. Students will learn HTML (an easy form of programming), how to lay out a page, to design an efficient site, to prepare pictures for use on their pages, and to upload their work to the Internet. Focus will be on in-class work and will culminate with student works being used in the school's web site on the Internet. Grades 9, 10, 11, 12.

### **6105 BROADCAST JOURNALISM & PRODUCTION**

**One Semester .5 Credit**

This course introduces aspiring journalists and news producers to the basic tools, techniques and vocabulary of broadcast journalism. The focus is on broadcast news, writing, production, and reporting. Students will participate in group and individual assignments. Grades 9, 10, 11, 12.

### **6106 VIDEO PRODUCTION**

**One Semester .5 Credit**

This course provides an introduction to the equipment and techniques of video studio production from planning through scripting to videotaping to editing. A series of individual and group exercises and projects provide a foundation for creative expression and various types of productions. Grades 9, 10, 11, 12.

### **6107 DOCUMENTARY FILM MAKING**

**One Semester .5 Credit**

The purpose of this class is for students to learn the process of planning, writing, filming, and editing a documentary film while coinciding with a display of an understanding of current and past significant historical events. Students will be given parameters from which to work that will include options for each film made. Students will be utilizing the new technology suit to create, film, and edit the documentaries. The class will be an elective and will be designed for yet not limited to gifted and academically talented students. Grades 9, 10, 11, 12

## **ENGLISH**

The goals of the secondary English curriculum are to provide students with both mechanical skills and humanistic awareness to gain competency in reading, writing, speaking, and listening so that they may better understand themselves and their world. Students enhance these competencies through the guided use of electronic research and modern technologies as a facilitator for better reading and writing.

### **1221 WORLD STUDIES - HONORS**

#### **1232 WORLD STUDIES – COLLEGE PREP**

**Full Year 2 Credits**

World Studies, a double-period offering, is team taught by the Social Studies and English departments and offers an introductory inter-disciplinary approach to the study of world cultures and their historical foundations. Class discussions and activities are enhanced by the special opportunity for students to interact with an English and history teacher present in the classroom together. Cultural areas and themes are studied from the multiple perspectives of history, literature, art, music, and other cultural phenomena. Textbooks, novels, short stories, poems, films, recordings, speakers, and field trips are used in a multi-sensory approach to help students bridge the gap between the two subject areas, as well as to examine the components that form major cultures of the world.

Students work to develop writing, speaking, and computer literacy skills. Teachers rely upon flexible grouping to instruct students in content-based grammar, vocabulary and writing skills as well as library and computer-based research. In addition, students are given numerous public speaking opportunities through role playing and presentation assignments. Power Point presentations are required of each student. Students earn one social studies and one English credit for the course. The honors level course differs from the college prep level in frequency and sophistication of writing assignments, pacing of the lessons and number of reading selections. Grade 9

### **1233 WORLD STUDIES**

**Full Year 2 Credits**

The World Studies course, team taught by the English and Social Studies Departments, offers an inter-disciplinary approach to the study of the world. Fundamental to this course is a strong emphasis on skill building. Teachers will emphasize individualization in addressing the essential skills of reading, writing, speaking, and listening for each student. Students interact simultaneously with English, social studies and special education teachers, present in the classroom for two class periods each day. This allows for individualization and small group work in all areas of the curriculum. Textbooks, novels, short stories, poems, films, recordings, and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Works have been selected that are both representative of the time periods and appropriate to the reading levels of the students. Students cross disciplines to develop writing, vocabulary, grammar, reading comprehension, research, computer, and analytical skills. Students are active learners, making extensive use of role-playing, simulations and presentations. Serious attention is also given to writing assignments which are process oriented, and varied. Students earn one Social Studies and one English credit for the course. Grade 9

### **1137 CRITICAL WRITING**

**One Semester .5 Credit**

This required semester-long course, which will be scheduled for all freshmen if possible, has been designed to develop and refine the critical language arts skills of reading and writing. Throughout the course, the focus will be on the development of the advanced reading and writing skills that are essential to success in high school and beyond.

This course addresses all aspects of the writing process, vocabulary development, and readings from a variety of genres and subjects. Writing assignments stem from a variety of sources including personal experience, technical topics, and responses to readings; and foster each of the three main types of writing: narrative, informational, and persuasive. This course does not fulfill the graduation requirement for English credits.

### **1241 AMERICAN STUDIES - HONORS**

#### **1242 AMERICAN STUDIES - COLLEGE PREP**

**Full Year 2 Credits**

American Studies, a double period offering, is team taught by the Social Studies and English departments and offers an inter-disciplinary approach to the study of 20th century America. The dynamics of class discussions and presentations are enhanced by the opportunity for students to interact simultaneously with an English and history teacher, present in the classroom for two class periods each day. Eras and themes are studied from the multiple perspectives of history, literature, art, music, and other cultural phenomena. Textbooks, novels, short stories, poems, films, recordings, speakers and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Students cross disciplines to develop writing, vocabulary, reading comprehension, research, computer, and analytical skills. Students are active learners, making extensive use of role playing, simulations and presentations. In all areas of study, significant attention is placed upon conflicting interpretations and an inquiry approach to learning. Serious attention is also given to writing assignments which are process oriented, varied, and designed to build upon work begun in World Studies. Student application of technology is an essential requirement of the course.

Both the English and social studies components of the honors level course include pre-Advanced Placement strategies and skills as they relate to interpreting literary and primary source materials, analyzing conflicting interpretations and engaging in critical writing. Students earn one social studies and one English credit for the course. The honors level course also differs from the college prep level in the frequency and sophistication of writing assignments, pacing of the lessons and reading selections. Grade 10

### **1243 AMERICAN STUDIES**

**Full Year 2 Credits**

The American Studies course, team taught by the Social Studies, English, and Special Education Departments, offers an inter-disciplinary approach to the study of 20th century America. Fundamental to this course is a strong emphasis on skill building. Teachers will emphasize individualization in addressing the essential skills of reading, writing, speaking, and listening for each student. Students interact simultaneously with English, social studies and special education teachers, present in the classroom for two class periods each day. This allows for individualization and small group work in all areas of the curriculum. Textbooks, novels, short stories, poems, films, recordings, speakers and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Works have been selected that are both representative of the time periods and appropriate to the reading levels of the students. Students cross disciplines to develop writing, vocabulary, grammar, reading comprehension, research, computer, and analytical skills. Students are active learners, making extensive use of role-playing, simulations and presentations. Serious attention is also given to writing assignments which are process oriented, varied, and designed to build upon work begun in World Studies. Students earn one Social Studies and one English credit for the course. Grade 10



**1270 AP ENGLISH LITERATURE & COMPOSITION****Full Year1 Credit**

This course offers the student an opportunity to “see” into literature and to discover the authors’ intent and techniques. Students will learn to evaluate pieces of writing by analyzing background, structure, technique and theme and will learn to develop and write substantive critical analyses. Students will develop sensitivity to nuances in the use of language and levels of meaning in an in-depth study of literature. The student will also be guided in independent study of the various genres. This course is comparable to a freshman course in college. Admission to the course is only for 11th grade students. Students must meet the following requirements for selection: a B+ average in American Studies- Honors or recommendation of the American Studies- College Prep English teacher.

**1151 ENGLISH 11 - HONORS****1152 ENGLISH 11 – COLLEGE PREP****Full Year 1 Credit**

English in the junior year will explore major genres of literature including: drama, the novel, short fiction, poetry, and non-fiction. In the study of each, students will have reinforced key concepts introduced in World and American Studies, such as common themes, components of characterization and symbol, narrative techniques, as well as the conventions of the individual literary forms. The courses are differentiated at times by the works studied, but more precisely by the pace, depth, and manner of presentation. Writing is a major portion of this course. Students will receive instruction and practice in the three major modes of writing: narrative, informational, and persuasive. The process approach to writing will, likewise, be stressed to include restriction of topic, outlining, and types of essay development. Students will prepare thesis statements, try out various writing styles, and explore different means of supporting the thesis statement. Research skills are also developed. Students continue their vocabulary and grammar studies to master the language arts standards appropriate at the eleventh grade level. Speaking and study skills, as well as the use of authentic assessments, are important components of this course for all juniors.

**1153 ENGLISH 11****Full Year 1 Credit**

This course primarily deals with a survey of various literary genres. Students are exposed to short stories, poems, novels, and plays. Special emphasis is placed upon the many literary devices and themes employed by the authors studied in the course.

In addition to literary studies, the course emphasizes the improvement of writing skills. The written composition component of the course stresses the development and organization of descriptive, narrative and expository paragraphs and essays. Special attention is also given to the elimination of common composition errors such as sentence fragments, run-ons, misspellings, capitalization, and punctuation mistakes. Vocabulary units are also studied on a regular basis in an effort to enhance the quality of diction in student compositions.

**1280 AP ENGLISH LANGUAGE & COMPOSITION****Full Year 1 Credit**

An AP course in English Language and Composition engages students in becoming skilled readers of prose written in a variety of periods, disciplines, and rhetorical contexts and in becoming skilled writers who compose for a variety of purposes. Both their writing and their reading should make students aware of the interactions among a writer’s purposes, audience’s expectations, and subjects as well as the way generic conventions and the resources of language contribute to effectiveness in writing. The course allows students to write in a variety of forms- narrative, exploratory, expository, argumentative - and on a variety of subjects from personal experiences to public policies, from imaginative literature to popular culture. But the overarching purpose is to enable students to write effectively and confidently in their college courses across the curriculum and in their professional and personal lives. Grade 12. Students must meet the

following requirements for selection: a prerequisite of a B in Advanced Placement Literature and Composition or a B+ average in English 11 Honors, and/or recommendation of 11<sup>th</sup> grade English teacher.

### **1161 ENGLISH 12 - HONORS**

### **1162 ENGLISH 12 – COLLEGE PREP**

**Full Year 1 Credit**

The curricula for English 1161 and 1162 are basically the same in scope; the major differences in the courses are in the pace, depth, manner of presentation and amount of required materials. Writing of the research paper and of the critical essay is a major portion of this course. Students will develop and refine their skills in finding and organizing information and in the writing of a major research paper. Students will be instructed in formats and techniques of critical writing as they apply to literary genres. Literature will include a chronological study of British writers' works from *Beowulf* to those of the nineteenth and twentieth centuries. Students will examine representative Shakespearean plays, along with Romantic, Victorian, and modern poetry and prose. Writers whose works will be studied include Wordsworth, Coleridge, Byron, Keats, Shelley, Dickens, Tennyson, Browning, and others. Students will examine the history of these periods as it affects the literature.

Students entering English 1161 are expected to have an advanced understanding of the fundamentals of writing and the writing process. Students will continue their vocabulary study, and usage problems will be addressed as they present themselves in students' writing. Students are expected to work more independently and required to read additional pieces of literature to augment their understanding and appreciation of British literature.

### **1163 ENGLISH 12**

**Full Year 1 Credit**

This course is specifically designed for seniors who may need help in making a smooth transition from high school to post-secondary level placement. The ultimate goal of this course is to provide the students with the full realm of possibilities which await them upon graduation from high school and to teach the skills necessary for success in their respective fields of interest. While the core curriculum includes the traditional literary study of short stories, novels and poetry, special emphasis is also placed upon developing the requisite writing skills one needs to achieve success in college and the business world. In addition to the core curriculum, specific learning strategies are taught in order to aid students in the post-secondary classroom. These strategies specifically touch upon reading comprehension, vocabulary, test taking and note taking skills. The curriculum also includes occasional field trips to colleges and technical school, as well as the scheduling of guest speakers from a variety of professions. In an effort to ensure a small teacher to student ratio, two instructors are assigned to the class.

### **1385 BEYOND THE SCREEN: A FILM APPRECIATION COURSE**    **One Semester .5 Credit**

This one semester course presents the development of the cinema from its inception to today's feature films. Units consist of technical study of film-making, the use of the camera, lighting, and sound, comparison of the narrative as well as the stylistic messages of the film, animation, special effects, and the study of these elements as they are brought together in representative films. Films will be examined for their contributions to their genres, and students will evaluate them both orally and in writing. Students will be required to select one film from a list of recommended films and write a critical evaluation of it for the class. This course does not fulfill the graduation requirement for English credits. Grades 9, 10, 11, 12

### **1245 CREATIVE WRITING**

**One Semester .5 Credit**

This semester-long course has been designed to develop the skills of writing creatively for a variety of audiences and purposes. This course will be conducted in a workshop format where

students write original pieces, participate in the class critiques, and revise their work together. The expectation is that students will gain confidence in their ability to write expressively and will benefit from the input of others. Throughout the semester, students will experiment with various forms of writing including the use of wikis, blogs, and other digital media. Students will be expected to create portfolios emphasizing their growth as authors. The major genres of creative writing featured in this curriculum will be poetry, short fiction, play writing, and an independent project that is student designed. Students must meet the following requirement: C or better in previous English course or recommendation from English teacher. This course does not fulfill the graduation requirement for English credits. Grades 9, 10, 11, 12

### **1345 CREATIVE WRITING II**

**One Semester .5 Credit**

This semester-long course is intended for those students who have already taken Creative Writing I and wish to further develop the skills of writing creatively for a variety of audiences and purposes. This course will be conducted in a workshop format where students write original pieces, participate in class critiques, and revise their work together. Instruction will be differentiated to address the unique interests and technical level of more advanced writers. While all students will receive exposure to the major genres of creative writing (poetry, short fiction, play writing), students enrolled in Creative Writing II will have more choice and challenge in their assignments, with emphasis on independent development of ideas, writing for publication, and advanced critique skills. Students must meet the following requirement: C or better in Creative Writing I. This course does not fulfill the graduation requirement for English credits. Grades 10, 11, 12

## **GIFTED AND TALENTED**

### **7902 HUMANITIES SEMINAR**

**One Semester .5 Credit**

The course introduces students to the impact that art, literature, music, philosophy, history and ethics have left on our world. Crucial themes of continuing importance from different perspectives, such as justice, leadership, tragedy, and the concept of the self will be studied. In the Humanities curriculum, emphasis is placed on critical thinking, creativity, innovation, social and emotional health, and the use of technology. Students explore aspects of human nature, human roles, behavior, and human ideals. Other areas of focus include community building, collaboration, creation and practice of effective habits as well as other delivery of services as deemed appropriate by the case manager. **Humanities Seminar is a one semester elective that meets the Art, Music, & Culture graduation requirement and is designed for Academically Gifted Students.**

**Prerequisite: GIEP**

### **7903 RESEARCH DESIGN AND EVALUATION**

**One Semester .5 Credit**

The objective of this course is to teach students how to use topics in probability and statistics to critically analyze and conduct scientific research. The focus will be on learning how to apply scientific methods. Students produce two projects; one that focuses on statistics and Expected Value, the other project will be to create a Research Proposal, similar to those used in college that are based on peer reviewed data with an emphasis on ensuring reliability and validity. Students will also examine methods of data collection and analysis: levels of measurement, graphic presentation, descriptive statistics and some multivariable statistical techniques. Prerequisite: GIEP or teacher recommendation.

### **7912 PHILOSOPHY/HUMANITIES II**

**One Semester .5 Credit**

Philosophy, literally “love of wisdom,” is a discipline exploring basic questions about human beings, what we know and can know, and what can be said to exist. Philosophy strives for understanding of many ideas and themes, including the existence of God, the nature of reality,

what knowledge is, and what makes actions right or wrong. This course will require students to read and think critically, and argue logically. Students will evaluate and understand the positions of others and defend their own positions through discussion and writing. Further, the course takes an interactive, multi-media approach to learning through the use of films, the internet, podcasts, and other audio and visual sources with the goal of stimulating dialogue through philosophical investigation. This course will require an open mind to entertain ideas contrary to your own. This course is asynchronous as it is offered online via Google classroom. Prerequisite: this course is designed for 11<sup>th</sup> and 12<sup>th</sup> grade Academically Gifted Students.  
Prerequisite GIEP

### **INDEPENDENT STUDY**

**7923 Full Year 1 Credit**

**7923-5 One Semester .5 Credit**

An independent study program is available for gifted students who wish to extend their learning outside of regularly offered courses. Independent study courses involve academic work chosen or designed by the student with the approval of a mentor teacher, under the gifted case manager's supervision. Students will design an independent study in which they pursue the investigation of a self-selected focus. The independent study must emphasize the development of higher level thinking skills of analysis, synthesis and evaluation and identify the content standards related to the independent study and product.

***Proposals for independent study must be submitted to the gifted case-manager.***

Applications can be obtained in the Gifted Resource Room. All applications must include specific, measurable, objectives and standards with a specific timeline for work completion. A committee consisting of an administrator, counselor, case manager and teacher will review all proposals for approval. If approved, this committee will decide on the credit value. The student assumes full responsibility for completing academic coursework as proposed and obtaining resources needed. Students are also responsible for creating a portfolio of work. Meetings between the student and gifted case manager will take place regularly. Once approved, students are committed to completion of the course and will receive a final grade of pass/fail. Withdrawal and Incomplete grades will be issued in the same manner as all other coursework. The role of the gifted case-manager will be to monitor progress toward course completion, be available as a resource to the student, grade progress on a quarterly basis and complete a final evaluation upon completion of the coursework which will include a final grade. Prerequisite: as deemed a need by the GIEP team, with committee approval.

### **EDUCATIONAL FIELD EXPERIENCE**

**7924 Full Year 1 Credit**

**7924-5 One Semester .5 Credit**

The educational field experience is an unpaid internship that provides a career exploration opportunity for students who wish to verify career choice. It is an excellent way to determine if a career pathway is the best option to pursue before beginning post-secondary education. The student is responsible for internship acquisition. The case manager supervises, coaches, and mentors students throughout the internship experience. The case manager also collaborates with the community-mentor at the internship site. All student interns meet bi-weekly with their case-manager to share experiences and to participate in topical discussions relevant to the internship experience. Each intern will maintain a reflection journal, and complete a culminating project.

\*Students must provide their own transportation to and from their internship.

\*To participate in the Internship experience students **MUST MEET THE FOLLOWING CRITERIA:**

1. Strong attendance record;
2. Exemplary behavior record; and
3. Recommendation from the school counselor.

Prerequisite: grades 11 & 12; GIEP; connections with an educational field experience site prior to enrollment is strongly recommended.

## **MATHEMATICS**

The mathematics department offers a variety of courses on several different ability levels to meet the needs of all students. Students in all classes will use technology to better understand mathematical concepts and application to real world events.

A strong understanding of mathematical principles and problem-solving strategies is vitally important for all students. Students need to exhibit computational competence and use the skills and concepts of mathematics as tools to understand and solve problems in order to be successful in our increasingly technological society.

All graduates of Lower Moreland will need to meet the mathematics standards set forth by the State. All courses, regardless of the level, have been designed so that all mathematics standards can be met. Mathematics courses offered in grades 9–12 are described below.

### **3132 ALGEBRA I - COLLEGE PREP**

**Full Year 1 Credit**

This course serves as a foundation for the study of higher levels of mathematics. Real world applications and modeling of problems are an integral part of this program. Emphasis is placed on data analysis, data collection, and the use of technology to help visualize the development of mathematical concepts. Students will work with variables to simplify expressions, solve equations, factor polynomials, and solve linear systems. The use of graphing technology is a major element of this course. Grade 9.

### **3133 ALGEBRA 1**

**Full Year 1 Credit**

This course is designed to emphasize the study of multiple representations of linear and non-linear functions. It includes mathematical concepts for working with rational numbers, various expressions, analyzing and solving linear equations & inequalities, data analysis, probability, statistics, and polynomials. Students will use hands-on materials and calculators when needed in solving problems where the algebra concepts are applied. Grade 9.

### **3231 GEOMETRY – HONORS**

**Full Year 1 Credit**

This course integrates geometric relationships through visualization, problem solving, and application. The logical and deductive thinking skills developed enable students to extend their ability to draw appropriate mathematical conclusions. Reading mathematics is a consistent strand throughout the course. Graphing technology and dynamic geometry software is used to enrich the students' understanding of geometry. Coordinate geometry is integrated throughout the program. Prerequisite: B or better in Algebra I-Honors or teacher recommendation. Grade 9.

### **3242 GEOMETRY – COLLEGE PREP**

**Full Year 1 Credit**

This course is the study of geometry and all of its elements. Emphasis is placed on spatial visualization while building a knowledge of the relationships between the geometric elements. Students use inductive and deductive thinking and apply logical reasoning when studying lines, angles, planes, triangles, polygons, circles, and spheres. Graphing technology and dynamic geometry software are used to enrich the students' understanding and appreciation of

geometry. Coordinate geometry is integrated throughout the program. Prerequisites: C or better in Algebra 3132 or teacher recommendation. Grades 9, 10.

### **3243 GEOMETRY**

**Full Year 1 Credit**

This course is the study of geometry and all of its elements. Emphasis is placed on spatial visualization and development of logical thinking skills through the interrelationship of ideas. Dynamic geometry software is used to enrich the students' appreciation of geometry. Coordinate geometry is integrated throughout the program. All the topics remain the same as geometry 3242; however, less emphasis is placed on proof development and examining rigorous problems. Prerequisite: C- or better in Algebra or teacher recommendation. Grade 9, 10.

### **3244 GEOMETRY**

**Full Year 1 Credit**

This course is the study of practical and applied geometry with a minimal emphasis on proofs and abstractions. Students are introduced to the roles played by undefined terms, definitions, postulates, and theorems in the deductive reasoning process. Dynamic geometry software is used to explore geometric relationships. Prerequisites: completion of Algebra I. Grades 9, 10.

### **3151 ALGEBRA II – HONORS**

**Full Year 1 Credit**

This course is a continuation of the first course in Algebra and includes the study of quadratic equations, inequalities, complex numbers, conic sections, rational, exponential, and algebraic functions. A strong development of concepts both in theory and application is emphasized throughout the year. The use of graphing technology is a major component of this course. Prerequisite: B or better in Geometry 3231 or teacher recommendation. Grade 9, 10.

### **3152 ALGEBRA II – COLLEGE PREP**

**Full Year 1 Credit**

This course is a continuation of first-year Algebra with an emphasis on the fundamental operations. Added experience is gained in factoring, and new areas such as quadratic equations, complex numbers, graphing, functions and rational expressions are introduced. Problem solving and real-world applications are used to demonstrate the value and use of algebra. Graphing technology is used for topics throughout the course. Prerequisite: C or better in Geometry 3242 or teacher recommendation. Grades 10, 11, 12.

### **3153 ALGEBRA II**

**Full Year 1 Credit**

This course is a continuation of first-year Algebra. All the topics and concepts remain the same as 3152 but less emphasis is placed on the theoretical underpinnings of Algebra. Real-world applications show the value of algebra. Problem solving is a continual process in this program. Graphing technology will be used for topics throughout the course. Prerequisite: C- or better in Geometry 3243 or teacher recommendation. Grades 11, 12.

### **3154 ALGEBRA II**

**Full Year 1 Credit**

This course is designed for those students who find mathematics challenging. Emphasis is placed on strengthening fundamentals of Algebra and demonstrating growth in various new topics such as linear and quadratic equations and complex numbers. Problem solving is a major component of this program. Students who successfully complete this course are prepared to progress to concepts in Functions and Trigonometry. Graphing technology will be used for topics throughout the course. Prerequisite: completion of Geometry 3244 or teacher recommendation. Grades 11, 12.

### **3163 ALGEBRA III**

**Full Year 1 Credit**

The emphasis of this course is to develop a strong conceptual understanding of the material through practical application. The topics covered will include algebraic and geometric

competencies, number theory, trigonometry, probability and statistics, and the math of finance. Students will be required to complete cumulative unit projects to demonstrate their understanding. Prerequisite: completion of 3153 or 3154. Grades 11, 12.

### **3351 PRE-CALCULUS – HONORS**

**Full Year 1 Credit**

This course integrates and develops topics in algebra, geometry, and trigonometry necessary for a firm foundation in the study of calculus. The course stresses both theory and application, as students are challenged with problems varying in scope and level of difficulty. Graphing and computer technology is an integral component of this course. Prerequisite: B or better in Algebra II Honors 3141 or teacher recommendation. Grade 10, 11.

### **3352 PRE-CALCULUS– COLLEGE PREP**

**Full Year 1 Credit**

This course is a study of circular and trigonometric functions, coordinate geometry, polynomial functions, exponential and logarithmic functions and conic sections. It provides a solid preparation for the student who intends to continue the study of mathematics. It is also helpful to the student who, although not wishing to continue a formal mathematics program, desires exposure to some important topics in higher mathematics. Graphing and computer technology is an integral component of this course. Prerequisite: C or better in Algebra II 3152 or teacher recommendation. Grades 11, 12.

### **3363 FUNCTIONS AND TRIGONOMETRY**

**Full Year 1 Credit**

This course is a study of advanced algebra topics, as well as basic circular and trigonometric functions. Review of linear functions and relationships will also be integrated into the course. The topics are developed through visualization, with emphasis on the relationships between these concepts. Graphing technology is an integral component of this course. Students are provided preparation for the continued study of mathematics. Prerequisite: C- or better in Algebra 3153 or teacher recommendation. Grade 11, 12.

### **3364 FUNCTIONS & TRIGONOMETRY**

**Full Year 1 Credit**

This course offers a continuation of concepts in Algebra II and a comprehensive coverage of trigonometry. Emphasis is placed on strengthening algebraic concepts and using these skills in the development of trigonometry. Prerequisite: completion of Algebra II 3154 or teacher recommendation. Grade 11, 12.

### **3461 CALCULUS – HONORS**

**Full Year 1 Credit**

Students will study differential and integral calculus with a balance between theory and practical application. This course is for students who have completed Math 3351 or 3362 with a grade of C or better or teacher recommendation. A sound background in pre-calculus is essential for the development of topics in calculus. Prerequisite: 3351 or 3362. Grade 12.

### **3472 CALCULUS – COLLEGE PREP**

**Full Year 1 Credit**

The focus of this course is to introduce students to calculus to the primary concepts covered in a traditional college calculus course with an emphasis on applications rather than theory. This course will include the following calculus concepts: functions, limits, derivatives and integrals. There will be an in depth review of pre-calculus concepts. The topics will include algebraic manipulations of rational equations along with a review of the following; quadratic, exponential and logarithmic functions. Prerequisite: 3362 with a B or better or a challenge exam that demonstrates proficiency in the topics covered in 3362. Grades 11, 12.

**3460 AP CALCULUS (AB)****Full Year 1 Credit**

AP Calculus AB is a standard college-level course in differential and integral calculus, equivalent to one semester of calculus at most universities. Topics include a review of functions, an introduction to limits and continuity, derivatives and their applications, integrals and their applications, anti-derivatives and the Fundamental Theorem of Calculus, and an introduction to differential equations using slope fields. There is an emphasis on conceptual understanding and working with functions represented graphically, numerically, analytically, and verbally. Proficiency using the TI-84 (TI-89) graphing calculator is expected. Upon completion of this course, students will take the Advanced Placement Examination offered by the College Board. Prerequisite: A- or better in Pre-Calculus Honors 3351 or teacher recommendation. A summer assignment is required for this course. Grade 11, 12.

**3470 AP CALCULUS (BC)****Full Year 1 Credit**

AP Calculus BC includes all of the topics covered in AP Calculus AB, as well as the use of parametric equations and polar functions, and convergence tests for series, Taylor and/or Maclaurin series. Additional topics include arc length, surface area, L'Hôpital's rule, integration by parts, integration by partial fractions, improper integrals, Euler's method, and differential equations for logistic growth. Proficiency using the TI-84 (TI-89) graphing calculator is expected. Upon completion of this course, students will take the Advanced Placement Examination offered by the College Board. Prerequisite: A- or better in AP Calculus AB 3460 or teacher recommendation. A summer assignment is required for this course. Grade 12.

**3471 PROBABILITY, STATISTICS & DISCRETE TOPICS –HONORS****Full Year 1 Credit**

This course is a study of probability, statistics, and topics in math related to real world applications. Students will study the mathematics of chance, data collection, data analysis, and patterns. Students will understand and apply the mathematical theories and principles to explain events in science, current events, sporting events, games of chance, and everyday occurrences. Students will use technology to aid in their understanding of these principles. Prerequisite: 3351 or 3362. Grade 11, 12.

**3462 PROBABILITY, STATISTICS, & DISCRETE TOPICS –COLLEGE PREP****3463 PROBABILITY, STATISTICS, & DISCRETE TOPICS****Full Year 1 Credit**

This course is a study of probability, statistics, and topics in math related to real world applications. Students will study the mathematics of chance, data collection, data analysis, and patterns. The focus will be on understanding mathematics within the context of science, current events, sporting events, games of chance, and everyday occurrences. Students will use technology to aid in their understanding of these principles. Prerequisite: 3362 or 3363. Grade 11, 12

**3480 AP STATISTICS****Full Year 1 Credit**

The purpose of Advanced Placement Statistics is to introduce students to the major concepts and tools for collecting, analyzing and drawing conclusions from data. Students will be exposed to four main statistical themes including data analysis through graphing and numerical descriptions, sampling and experimental techniques, exploring random phenomena using probability and simulation and applying the methods of statistical inference to estimate population parameters and test hypotheses. Prerequisite: B+ or better in Pre-Calculus Honors 3351 or B+ or better in AP Calculus AB 3460 or teacher recommendation. A summer assignment is required for this course. Grade 12.

**3495 COMPUTER SCIENCE: WEB APPS AND GAMES****One Semester .5 Credit**

This course will provide students with an understanding of the theory of application and game design, regardless of platform. Students will utilize reasoning and problem solving skills while



learning basic game and app development concepts that apply to multiple platforms. Topics will include innovation, design elements and user interface design. This course does not require prior programming experience. Grades 9, 10, 11, 12

**3496 COMPUTER SCIENCE: COMPUTER PROGRAMMING** **One Semester .5 Credit**

This course will explore the concepts of computer science and programming languages. Students will understand the building blocks of programming, think computationally and solve problems using data and coding. Students will develop abstract reasoning and problem solving skills. Students should be concurrently enrolled in, or have completed, Algebra II or a higher level Mathematics course. Grades 10, 11, 12

**3490 AP COMPUTER SCIENCE PRINCIPLES** **Full Year 1 Credit**

AP Computer Science Principles is an introduction to the central ideas of computer science and the practices of computational thinking. This course focuses on creativity, and the understanding of computational content, computational thinking skills and the impact of computing on the world. Topics covered include: programming, algorithms, the Internet, big data, digital privacy and security and the societal impacts of computing. No prior knowledge of computer science is necessary; however, Introduction to Computer Programming (#3496) is recommended. Mathematics prerequisite is Algebra 2. Grades 10, 11, 12

**3500 AP COMPUTER SCIENCE A** **Full Year 1 Credit**

AP Computer Science A is equivalent to a first-semester, college-level course in computer science. The course introduces students to computer science with fundamental topics that include problem solving, design strategies and methodologies, organization of data (data structures), approaches to processing data (algorithms), analysis of potential solutions, and the ethical and social implications of computing. The course emphasizes both object-oriented and imperative problem solving and design using Java language. These techniques represent proven approaches for developing solutions that can scale up from small, simple problems to large, complex problems. The AP Computer Science A course curriculum is compatible with many CS1 courses in colleges and universities. AP Computer Science Principles is recommended prior to taking AP Computer Science, however the course is not required. This course may be used to fulfill 1 credit of Science or Math required for graduation. Students are advised to fully discuss this option with their school counselor to determine whether this best suits the student's college or career path.

**MUSIC**

The two primary goals of Lower Moreland's music curriculum are: (1) the discovery and development of individual aptitudes and (2) increasing students' understanding and appreciation of the art of music, as well as its relevance to the quality of human life.

Lower Moreland's program provides a variety of musical experiences, including an emphasis on the study and performance of selected musical literature representative of a wide range of periods, styles, nationalities, forms, composers, and media. Performing groups including band, orchestra, chorus, and other ensembles render service to the school and community, thus providing an important cultural community resource as well as a significant learning activity. The music department also offers extra-curricular groups which include Honor Choir, Jazz Ensemble, Jazz Lab Band, Pep Band, Chamber Strings, and the opportunity to participate in the school musical.

**7576 ART, MUSIC AND CULTURE****One Semester .5 Credit**

Team taught by members of Lower Moreland's Art and Music Departments, this course offers all students, regardless of talent or ability, the opportunity to engage in critical thinking and creative output in the arts. In a culture in which many students are consumers of art and music, this course presents a case for being creators of art and music as well. Throughout the course, students will examine various art forms through the perspective of identity, expression, storytelling, impact, and reaction. Students participate in the arts as they perform and create work both alone and in groups. The course culminates in a show at the end of each semester. Grades 9, 10, 11, 12. Required for graduation.

**7875 SYMPHONIC BAND (GRADES 10-12)****7895 CONCERT BAND (GRADE 9 ONLY)****Full Year 1 Credit**

Band is a major subject meeting five days a week. The group studies and performs music of varying styles and periods of music history, and performs with guest composer, clinicians, and composers. Members are eligible to participate in district and regional band festivals, and perform in the annual concerts throughout the school year. Participation in some evening rehearsals and concerts is required. Entry must be approved by the director. Grades 9, 10, 11, 12.

**7178 Wind Ensemble – HONORS****Full Year 1 Credit**

This is the top-level concert band ensemble. Students in this course are members of the LMHS Wind Ensemble. These students must audition for the Director prior to acceptance. Students in the Wind Ensemble must have the course on their schedules five (5) days per week. Members will perform more difficult wind symphony literature and have opportunities for more performances, adjudications and festivals. Participation in evening rehearsals and concerts is required. Grades 9, 10, 11, 12.

**7876 CONCERT CHOIR****Full Year 1 Credit**

Concert Choir is a major subject and meets five days a week. The ensemble studies and performs music of all types, and learns proper singing techniques as well as basic musicianship. Members may participate in district, regional, and all-state events and are involved in the annual Winter and Spring Concerts and various community concerts. Participation in evening rehearsals and concerts is required. Grades 9, 10, 11, 12.

**7888 STRING ORCHESTRA****Full Year 1 Credit**

Orchestra meets five days a week during the school day. The ensemble studies and performs string orchestra music from various time periods and styles. The course also focuses on individual musicianship through ear training, study of theory, technique, creativity, and improvisation. Students are required to attend a few evening rehearsals throughout the year and perform for the annual Winter and Spring Concerts. Student members are eligible to participate in district, regional and state orchestra festivals. Grades 9, 10, 11, 12.

**7877 Band/Choir****Full Year 1 Credit**

This program is designed for those students who wish to participate in both band and choir or for those who do not meet the requirements for full credit in either. Students may be involved fully in the activities of both. Time for band and choir is equally divided. Participation in evening rehearsals and concerts is required. Consent of the directors is required. Grades 9, 10, 11, 12.

**7889 String Orchestra/Choir****Full Year 1 Credit**

This program is designed for those students who wish to participate in both string orchestra and choir or for those who do not meet the requirements for full credit in either. Students may be

involved fully in the activities of both. Time for string orchestra and choir is equally divided. Participation in evening rehearsals and concerts is required. Consent of the directors is required. Grades 9, 10, 11, 12.

### **7890 Band/String Orchestra**

**Full Year 1 Credit**

This program is designed for those students who wish to participate in both band and string orchestra or for those who do not meet the requirements for full credit in either. Students may be involved fully in the activities of both. Time for band and string orchestra is equally divided. Participation in evening rehearsals and concerts is required. Consent of the directors is required. Grades 9, 10, 11, 12.

### **7778 SINGING AND VOCALIZATION**

#### **7978 ADVANCED SINGING AND VOCALIZATION**

**One Semester .5 Credit**

Would you like to learn how to sing? This class will teach you voice placement, breathing, and pitch relationship so that you will become comfortable with your singing voice. You will be given a diverse selection of songs to work on in solo, duo, trio, and group situations. Beginners, intermediate and advanced levels. Advanced class members must have completed the Singing and Vocalization Class (7778) or be studying voice privately for at least one full year. Grades 9, 10, 11, 12.

### **7777 BEGINNING GUITAR**

**One Semester .5 Credit**

Want to learn to play the guitar? This course is an introduction to guitar playing at the beginner level. Students will learn how to read tabs and chord charts while playing various styles of music. Creativity and Improvisation are emphasized as students practice writing their own songs on the guitar and playing with others. School-owned instruments (acoustic guitars) are available for student use. No previous musical knowledge is needed. Books and music are provided. **Beginners only.** Grades 9, 10, 11, 12.

### **7797 ADVANCED GUITAR**

**One Semester .5 Credit**

Advanced guitar is offered for students who have previously taken Beginning Guitar or have taken the applicable competency test. In advanced guitar, students will further their guitar playing through studying advanced techniques: finger picking, advanced chords, group playing, and songwriting. School-owned instruments are available for student use but advanced students are encouraged to bring their guitars from home. Grades 9, 10, 11, 12.

### **7775 PIANO LAB**

#### **7886 ADVANCED PIANO LAB**

**One Semester .5 Credit**

This is your chance to learn to play piano. Students are taught in a laboratory/classroom situation on electric pianos. Headsets attach to each unit so the entire class can play at the same time. Students may be asked to purchase some materials, e.g., a book to suit their ability level. 7775-Piano Lab open to beginners only. Grades 9, 10, 11, 12. 7886-Advanced Piano Lab must have completed Piano Lab.

### **7776 JAZZ INSTRUCTION I**

**One Semester .5 Credit**

This is a course for those students who play instruments and are interested in jazz, fusion, and pop music. This course will cover the techniques used in playing jazz, pop, and fusion, improvisation, study of famous jazz composers and performers (John Coltrane, Miles Davis, Duke Ellington, Ella Fitzgerald), and the history and development of jazz and pop music. Grades 9, 10, 11, 12.

**7786 JAZZ INSTRUCTION II****One Semester .5 Credit**

This course is a continuation of the studies and performance of jazz improvisation. This class continues the exploration of jazz techniques, as well as putting an emphasis on the memorization of standard jazz repertoire. Students will also analyze, study, and play the improvisation solos of famous jazz musicians such as Sonny Rollins, Dexter Gordon, and Miles Davis. Prerequisite: Jazz Instruction I. Grades 9, 10, 11, 12.

**7765 MUSICAL THEATER I****One Semester .5 Credit**

This course is designed to introduce the basics of musical theater. Students will learn the fundamentals of acting and singing and will work on scenes, perform monologues, and sing songs from musicals. This course is designed to meet the needs of students who wish to learn more about performing. While this is an interactive course, the students will also study different musicals and learn about putting a musical together. No previous theater knowledge is needed. Music and scripts are provided. Grades 9, 10, 11, 12.

**7787 INTRODUCTION TO GARAGE BAND****One Semester .5 Credit**

This course gives students the experience of creating, performing, and recording their own original music using Apple's "Garage Band" software. Students will use a combination of "Apple Loops", vocals, midi instruments, and real instruments to create, record, and edit their own original compositions. Students will then share their creations through cd's, iTunes, iPods, podcasts, and the internet. Grades 9, 10, 11, 12.

**7879 MUSIC MAJOR****Full Year 1 Credit**

Would you like to learn how to read and write music for your voice or instrument, how to transcribe the music of your favorite performer while listening to recordings, or to play and sing by reading the music? This course will teach you how to read and write the music you like and to compose original music. It is a full-credit, major course that meets one period every day. You must complete at least one year of music major to be eligible for AP music theory to be added to the course selections next year.

Grades 9, 10, 11, 12.

**7870 AP MUSIC THEORY****Full Year 1 Credit**

This college-level course introduces students to theory, musical materials, and procedures; and integrates aspects of melody, harmony, texture, rhythm, form, and to some extent, history and style. The student's ability to read and write musical notation is fundamental to such a course. It is also assumed that the student has acquired at least basic performance skills in voice or on an instrument. The ultimate goal of this AP Music Theory course is to develop a student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. The achievement of these goals is approached by initially addressing fundamental aural, analytical, and compositional skills using both listening and written exercises. Building on this foundation, the course progresses to include more creative tasks, such as the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, and/or the realization of figured-bass notation. Students enrolled in this course must take the Advanced Placement exam. Teacher recommendation required. A summer assignment is required for this course. Grades 11, 12.

**PHYSICAL EDUCATION & HEALTH**

The Health and Physical Education Department is committed to providing students with the knowledge and skills necessary to link Health and Physical Education to the foundation of a healthy, productive, and fulfilling life. The emphasis on lifetime activities and the application of

health-related content to real-world situations will provide the basis for this goal. The role of individual responsibility in maintaining optimal wellness is stressed throughout the Health and Physical Education courses.

A healthy body and a healthy mind go hand-in-hand. Research shows that students who are physically active during the school day are often better able to concentrate on their school work and perform better on assessments.

The physical education program has been designed to enhance the physical, intellectual, emotional and social development of participants. Through participation in physical education, students will develop components of fitness and a variety of lifetime sport skills. Physical education is required each year and each student must meet a minimum requirement of 1.0 credit before graduation. Failures or incomplete grades will necessitate attendance in summer school or double scheduling the following year. Failures must be remediated prior to graduation.

The health course provides students with the knowledge and skill necessary to confront health-related issues. Maintaining a healthy way of life requires a balance of physical, mental, emotional, and social well-being. Health education is required in ninth and twelfth grade and each student must meet a minimum requirement of 0.5 credits before graduation.

**8335 PHYSICAL EDUCATION 9<sup>th</sup> (3 pds per week) Full Year .25 Credit**

Freshman physical education introduces students to a variety of activities with a concentration in physical fitness. A personal fitness portfolio will be created for each student and monitored throughout the student's high school career. Use of the fitness facility in conjunction with team and individual sports will provide students the opportunity to raise their physical fitness level and understand the benefits it brings. All students are administered fitness tests. Students will also be required to take basic aquatics. Grade 9.

**8345 PHYSICAL EDUCATION 10<sup>th</sup> (2 pds per week) Full Year .25 Credit**

This course offers sophomore students the opportunity to learn the skills involved in many individual, team and lifetime sports. To promote movement and enjoyment games such as soccer, team handball, floor hockey, volleyball and basketball are offered in 4 week units. Badminton and archery allow students an individual participation activity. The ultimate goal of these activities are to provide moderate to vigorous activity to promote optimal fitness. All students are administered fitness tests in which their data will be recorded in an e-Portfolio. Grade 10.

**8375 PHYSICAL EDUCATION 11<sup>th</sup> and 12<sup>th</sup> (2 pds per week) Full Year .25 Credit**

This program emphasizes participation in team and lifetime sports and activities. Included in these offerings are team handball, soccer, personal fitness, badminton, volleyball, softball, tennis, and archery. Students will incorporate cardiovascular fitness along with strength training that is designed by the physical education staff to benefit the individual. These activities are designed to teach students the value of physical activity and benefits of an active lifestyle. All students in the eleventh and twelfth grade are administered fitness tests. Grades 11, 12.

**8185 ADAPTIVE PHYSICAL EDUCATION (Credit and length of course dependent upon need of student.)**

This course is designed to meet the needs of individuals who are unable to participate in the regular program because of a physical handicap, disability, or special needs. A modified and individualized program is designed for each participant through the cooperative planning of the physical education staff. Grades 9, 10, 11, 12.

**8435 HEALTH EDUCATION 9 (2 pds per week)****Full Year .25 Credit**

This program emphasizes participation in team and lifetime sports and activities. Included in these offerings are team handball, soccer, personal fitness, badminton, volleyball, tennis, and archery. Students will incorporate cardiovascular fitness along with strength training that is designed by the physical education staff to benefit the individual. These activities are designed to teach students the value of physical activity and benefits of an active lifestyle. All students in the eleventh and twelfth grade are administered fitness tests. Grades 11, 12.

**8535 HEALTH CONNECTIONS I****Full Year .25 Credit**

This is a guidance approved course for students who have not received Health Education 9 by the end of their 9<sup>th</sup> grade year and are unable to schedule in their 10<sup>th</sup> grade year, or has not fulfilled requirement in a previous school district. The course is completed in a virtual classroom setting and follows the 9<sup>th</sup> Grade Health Education curriculum.

**8455 HEALTH EDUCATION 12 (2 pds per week)****Full Year .25 Credit**

The 12<sup>th</sup> Grade Health Education curriculum consists of tools for coping with modern-day life, personality traits, healthy/unhealthy relationships, consumer health, anatomy, and CPR/First Aid/AED certification. This course will expose students to skills in self-advocacy, social responsibility, and critical thinking. Grade 12.

**8555 HEALTH CONNECTIONS II****Full Year .25 Credit**

This is a guidance approved course for students who are not able to schedule Health Education 12 in their 12<sup>th</sup> grade year. The course is completed in a virtual classroom setting and follows the Health Education 12 curriculum.

**8315 INTRODUCTION TO SPORTS MANAGEMENT****One Semester .5 Credit**

Introduction to Sports Management is designed for those students who enjoy sports and are interested in pursuing a career in athletics, fitness or recreation. The course emphasizes basic management principles as they relate to these sports-related enterprises. A variety of marketing techniques and approaches are analyzed to broaden students' background in these areas and to better allow them to develop effective and comprehensive sports marketing plans. Students will also be given student driven opportunities to acquire the skills and knowledge to plan, organize, lead, and evaluate many sport/fitness activities, products and services. Example projects include organizing a team practice, budgeting, officiating, treatment of common sport injuries and arranging a special event. Students are also required to attend field day. The course is open to students who have maintained a B+ or higher in physical education in the previous year. Grades 10, 11, 12.

**8316 FITNESS I: TOTAL BODY CHALLENGE****One Semester .5 Credit**

This program emphasizes the benefits of being totally fit. The goal for each student is to achieve a higher fitness level, which will in turn increase energy level and self-esteem. The focus will be on core body strength, increased cardiovascular fitness flexibility, and muscular endurance and muscle strength. This program will take the student through steps of how to merge proper eating habits, good exercise routine and motivational strategies to design an optimum program. Open to students who have maintained a B+ or higher in physical education in the previous year. Grades 10, 11, 12.

**Introduction to Principles of Athletic Training and Sports Medicine****One Semester .5 Credit**

This course offers students interested in furthering their education into the medical field an opportunity to apply athletic training and sports medicine principles with hands on activities, guest

speakers, group work, individual assessments and realistic scenarios. Topics covered will be anatomical terms, basic first aid, taping and wrapping techniques, identification of common injuries, injury evaluation, treatment options, rehabilitation, medical documentation, and communication skills with parents, coaches, and staff. Students will have a variety of learning venues to expand knowledge and practice skills. This class will meet daily for one semester. Prerequisite of Anatomy strongly suggested.

## **SCIENCE**

The Science Department offers a variety of courses on several ability levels designed to meet the needs of all students. Utilizing Lower Moreland's state-of-the-art laboratory facilities, all of these courses are a blend of inquiry-based exploration and the theoretical underpinnings that inform and explain scientific research.

All students, regardless of interest, ability, or future plans, will find courses geared to their needs and to the needs of an increasingly technological world—a world where a solid foundation in the three basic sciences: biology, chemistry, and physics is growing evermore indispensable. *All students* should plan to take at least one course in each of these three basic sciences while at Lower Moreland. Additional courses include four Advanced Placement courses, an introductory course dealing with the fundamentals of physics and chemistry, and electives.

### **4521 FRESHMAN CHEMISTRY & PHYSICS - HONORS**

#### **4522 FRESHMAN CHEMISTRY & PHYSICS – COLLEGE PREP**

**Full Year 1 Credit**

This course will consist of elements of chemistry and physics. Students will develop an understanding of matter, formulas, reactions, compounds, principles of waves, light, sound, and thermodynamics. This course will offer students many experiences in the laboratory, where they will discover as well as verify scientific principles. Honors level of this course differs from College Prep level in the difficulty of problems and the application of scientific principles learned in this course. Honors students must exhibit very strong analysis and problem solving skills. Grade 9.

### **4523 FRESHMAN CHEMISTRY & PHYSICS**

**Full Year 1 Credit**

This course will consist of elements of chemistry and of physics. Students will develop a basic understanding of matter, chemical formulas, reactions, compounds, waves, light, sound, and heat. This course offers students extensive use of the laboratory to discover and reinforce scientific principles. Grade 9.

### **4441 BIOLOGY - HONORS**

**Full Year 1 Credit**

This course studies unity, diversity, and continuity of organisms as they function within their environments. These principles are approached from molecular, cellular, and ecological points of view. Topics such as genetics will focus on traditional concepts as well as current advances in the study of genetic engineering and causes of disease. This course has an emphasis on laboratory study and will use technology for data collection and analysis. Grade 10

### **4442 BIOLOGY - COLLEGE PREP**

**Full Year 1 Credit**

This course builds from the molecular level to the organism in order to explain diversity and adaptation of organisms to their environment. Chemistry, genetics, and evolution are strong components of this course so students can understand the relationship between plants, animals, and protists. Students problem solve and apply mathematics through frequent laboratory investigations. Grade 10

**4443 BIOLOGY****Full Year 1 Credit**

This course is designed for students who find science challenging. Its focus is a study of continuity, diversity, adaptation, and function of organisms within their environments. There is extensive use of the laboratory to demonstrate and reinforce biological concepts. Grade 10.

**4460 AP BIOLOGY****Full Year 1 Credit**

This course is designed to meet the objectives of a general biology course at the college level. The curriculum is based on four Big Ideas: the process of evolution drives the diversity and unity of life (Big Idea #1); biological systems utilize free energy and molecular building blocks to grow, to reproduce and to maintain dynamic homeostasis (Big Idea #2); living systems store, retrieve, transmit and respond to information essential to life processes (Big Idea #3); and, living systems interact, and these systems and their interactions possess complex properties (Big Idea #4). Emphasis is placed on the application of knowledge and concepts. Many laboratory investigations include a group research component. The course is open to students who have maintained an A or solid B average in Honors Biology and have teacher recommendation. Students should be highly motivated and able to work well independently. Advanced Placement Biology requires a thorough grounding in the fundamentals of chemistry. No student should elect Advanced Placement Biology in lieu of physics or chemistry. A summer assignment is required for this course. Grades 11, 12. (Must be taken in grade 11, if you intend to take Advanced Placement Chemistry as a senior.)

**4351 CHEMISTRY – HONORS****Full Year 1 Credit**

This course includes the study of atomic theory, stoichiometry, molecular structure, gas laws, solutions, thermodynamics, rates, and equilibrium as well as nuclear chemistry. The material is presented in theory and reinforced with applications of laboratory experiments and extensive problem solving. The students are expected to use mathematics to understand and apply the principals and concepts of chemistry. Inquiry and analysis are key components of the course. Prerequisite: Completion of Math 3151 or higher. Grade 11.

**4352 CHEMISTRY – COLLEGE PREP****Full Year 1 Credit**

Designed to fulfill college entrance requirements in chemistry, this course includes concepts such as atomic theory, mole theory, conservation of matter and energy, atomic and molecular structure, states of matter, kinetics, solution processes, and chemical equilibrium. Additional topics in organic chemistry and nuclear chemistry are covered as time permits. Chemistry is required for college admission in the sciences and related fields. Prerequisite: Completion of Math 3152 or higher. Grades 11.

**4343 CHEMISTRY****Full Year 1 Credit**

This is an introductory chemistry course in which students study matter, energy, and the interaction between matter and energy. The focus of this course will be a conceptual understanding of matter and energy within the context of real-life situations. This will be accomplished through lab investigations, projects, and demonstrations. Because of this conceptual nature of this course, the use of mathematics will be limited. Grade 11.

**4360 AP CHEMISTRY****Full Year 1 Credit**

This college-level course in Advanced Placement Chemistry course is designed to be taken after the successful completion high school chemistry. Through a strong emphasis on inquiry-based learning, students will study essential concepts surrounding six big ideas: atomic structure, property relations, transformations, kinetics, thermodynamics and equilibrium. Work in the laboratory to develop investigative and communication skills will be a strong component of this course as well. Advanced work in chemistry should not displace any other part of the student's



science curriculum. It is highly desirable for students to have a course in physics and strong background in mathematics. Prerequisites: Successful completion of Chemistry 4351 and recommendation of teacher. A summer assignment is required for this course. Grade 12.

#### **4361 PHYSICS – HONORS**

**Full Year 1 Credit**

This introductory, college-preparatory course combines laboratory experience, theory, mathematical models, and problem solving techniques. Students study the laws of physics through traditional and computer-interface lab. Topics including: motion, force, energy conservation laws, electricity and magnetism. Projects will serve as a culminating activity for each major unit. Emphasis is placed on the mathematical underpinnings of physics. Prerequisite: Completion of Math 3351 or higher. Grade 12.

#### **4362 PHYSICS - COLLEGE PREP**

**Full Year 1 Credit**

Major topics covered in this introductory course include motion, dynamics, energy conservation laws, electricity, and magnetism. The course uses a conceptual, experimental approach rather than a strong mathematical-theoretical approach. Especially emphasized is the understanding of physical concepts rather than the memorization of isolated facts and/or formulae. Students study the laws of physics through traditional and computer-interface lab activities. Projects will serve as a culminating activity for each major unit. Prerequisite Completion of Math 3362 or higher. Grade 12.

#### **4363 PHYSICS**

**Full Year 1 Credit**

This course is an introductory physics course which includes the study of motion, forces, energy, electricity, and magnetism. The focus will be on a conceptual understanding of the physical world and how the laws of physics explain everyday occurrences. This will be accomplished through lab investigations, projects, and demonstrations. Projects will serve as a culminating activity for each major unit. The course will emphasize understanding of the laws and concepts of physics rather than their mathematical underpinnings. Grade 12.

#### **4390 AP PHYSICS – C Mechanics**

**Full Year 1 Credit**

Advanced Placement Physics-C Mechanics is a college-level course equivalent to the first semester of physics for science and engineering majors. The content includes an in-depth study of mechanics and a brief survey of electricity and magnetism. Projects will serve as a culminating activity for each major unit. Elements of calculus will be used, as needed, to explain principles and in problem solving. Students enrolling in AP Physics must be taking calculus concurrently and have a strong background in math. Students enrolled in this course must take the Advanced Placement Physics Mechanics exam. Prerequisites include: Successful completion of honors math program through 3360 and taking 3470 concurrently. Grade 12.

#### **4475 ANATOMY AND PHYSIOLOGY**

**Full Year 1 Credit**

This course deals with the study of the structure and function of human body systems. Dissection is performed primarily on cats, focusing attention on the skeletal, digestive, muscular, circulatory, nervous (integumentary and respiratory) systems. Alternates to dissection are possible; however, hands-on activities are preferable. No student should elect Anatomy and Physiology in lieu of physics or chemistry. Both are absolute Prerequisites to further study biology and/or medicine. Prerequisites include: B- or better in Biology 4442 or C or better in Biology 4441 and teacher recommendation. Grades 11, 12.

**4380 AP ENVIRONMENTAL SCIENCE****Full Year 1 Credit**

This is a college level course in Environmental Science. The goal of the course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world and to identify and analyze environmental problems such as global warming or ozone depletion. The course will also examine many of the solutions for resolving and/or preventing environmental problems. Students should have a strong background in biology and chemistry or must be taking chemistry concurrently and must have teacher recommendation. This course should not be taken in lieu of chemistry or physics. A summer assignment is required for this course. Grades 11, 12.

**4381 ENVIRONMENTAL SCIENCE - HONORS****Full Year 1 Credit**

Do you want to really understand global warming? Is ozone depletion really a problem? Are the products you use at home safe? Is bottled water really better than tap water? In this course we will examine these and many environmental issues using scientific principles and methodologies to look at the interrelationships within the natural world and how humans affect it. We will also look at the many solutions already available to address the current environmental problems our world faces. You need to have already taken biology and chemistry or be enrolled concurrently in chemistry. Grades 11, 12

**4476 FORENSICS I****One Semester .5 Credit**

This course deals with the fundamentals of collecting and analyzing evidence found at a crime scene. Students will learn how to process crime scenes, analyze lab data, and conduct scientific investigations. Students will use technology to participate in activities as though they are forensic scientists. Students will document their findings through laboratory reports and multimedia presentations. Grade 11, 12, or students taking 4441 concurrently.

**4477 FORENSICS II****One Semester .5 Credit**

This course will lead to a development of reasoning strategies through examination of case studies; solving real world cases as part of an investigative team. Students will assess and define testing procedures and evidence gathering methods from simple to complex levels; formulate and analyze reasoning strategies as related to forensic science; develop and utilize a range of intellectual abilities, including critical thinking, logical argument, appropriate uses of evidence, and integration of varied types of information (quantitative, qualitative, text, image, etc.). Prerequisite: Forensics I. Grade 11, 12, or students taking 4441 concurrently.

**4478 SCIENCE 2.0****One Semester .5 Credit**

How do the new 4G wireless networks work? Why are so many dead birds falling from the sky? How long would it take for an organization or nation to develop a nuclear weapon and what materials, knowledge, and technology would it take for them to do so? These are just some of the current issues that this course will tackle. As news happens, students will collaboratively work with the teacher to investigate and understand the science behind the event. Alternate solutions to current problems facing society will also be explored. Students will help choose the topics to be studied. The projects will be problem-based and investigated through the use of technology and lab experiences. Grades 10, 11, 12

**4479 SCIENCE 2.1****One Semester .5 Credit**

This course is a continuation of Science 2.0 for interested students in pursuing independent investigations in science. As with Science 2.0, each semester the topics studied are new to reflect current events and the interests of the students taking the course. As news happens, students will collaboratively work with the teacher to investigate and understand the science behind the event. Alternate solutions to current problems facing society will also be explored. Students will

help choose the topics to be studied. The projects will be problem-based and investigated through the use of technology and lab experiences. *Note: Science 2.0 & 2.1 students will be in the same class. Science 2.0 students receive priority over Science 2.1 students for seats in the class.*  
**Prerequisites:** Science 2.0 4478. Grades 10, 11, 12

## **SOCIAL STUDIES**

The Social Studies curriculum offers a comprehensive program which provides the students with a substantial background in U.S. and world history and culture while offering them the opportunity in the junior and senior years to select courses from the behavioral and social sciences. For the serious and talented student of social studies, there is also the opportunity to select Advanced Placement Human Geography, Advanced Placement U.S. or European History, Advanced Placement Economics (Micro and Macro), Advanced Placement Government and Politics, or Advanced Placement Psychology.

All students must take an American government course prior to graduation. This requirement may be fulfilled by taking either AP U.S. Government and Politics (2570) or U.S. Government and Civics (2557).

### **1221 WORLD STUDIES - HONORS**

#### **1232 WORLD STUDIES – COLLEGE PREP**

**Full Year 2 Credits**

World Studies, a double-period offering, team taught by the Social Studies and English departments, offers an introductory inter-disciplinary approach to the study of world cultures and their historical foundations. Class discussions and activities are enhanced by the special opportunity for students to interact with an English and history teacher present in the classroom together. Cultural areas and themes are studied from the multiple perspectives of history, literature, art, music, and other cultural phenomena. Textbooks, novels, short stories, poems, films, recordings, speakers, and field trips are used in a multi-sensory approach to help students bridge the gap between the two subject areas and examine the components that combine to form major cultures of the world. Students work to develop writing, speaking and computer literacy skills. Teachers rely upon flexible grouping to instruct students in content-based grammar, vocabulary and writing skills as well as library and computer-based research. In addition, students are given numerous public speaking opportunities through role playing and presentation assignments. Power Point presentations are required of each student. Students earn one social studies and one English credit for the course. The honors level course differs from the college prep level in frequency and sophistication of writing assignments, pacing of the lessons and some reading selections. Grade 9.

#### **1233 WORLD STUDIES**

**Full Year 2 Credits**

The World Studies course, team taught by the English and Social Studies Departments, offers an inter-disciplinary approach to the study of the world. Fundamental to this course is a strong emphasis on skill building. Teachers will emphasize individualization in addressing the essential skills of reading, writing, speaking, and listening for each student. Students interact simultaneously with English, social studies and special education teachers, present in the classroom for two class periods each day. This allows for individualization and small group work in all areas of the curriculum. Textbooks, novels, short stories, poems, films, recordings, and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Works have been selected that are both representative of the time periods and appropriate to the reading levels of the students. Students cross disciplines to develop writing, vocabulary, grammar, reading comprehension, research, computer, and analytical skills. Students are active learners, making

extensive use of role-playing, simulations and presentations. Serious attention is also given to writing assignments which are process oriented, and varied. Students earn one Social Studies and one English credit for the course. Grade 9.

### **1241 AMERICAN STUDIES - HONORS**

### **1242 AMERICAN STUDIES - COLLEGE PREP**

**Full Year 2 Credits**

American Studies, a double period offering, team taught by the Social Studies and English departments, offers an inter-disciplinary approach to the study of 20th century America. The dynamics of class discussions and presentations are enhanced by the opportunity for students to interact simultaneously with an English and history teacher, present in the classroom for two class periods each day. Eras and themes are studied from the multiple perspectives of history, literature, art, music, and other cultural phenomena. Textbooks, novels, short stories, poems, films, recordings, speakers and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Students cross disciplines to develop writing, vocabulary, reading comprehension, research, computer, and analytical skills. Students are active learners, making extensive use of role playing, simulations and presentations. In all areas of study, significant attention is placed upon conflicting interpretations and an inquiry approach to learning. Serious attention is also given to writing assignments which are process oriented, varied, and designed to build upon work begun in World Studies. Student application of technology is an essential requirement of the course. Both the English and social studies components of the honors level course include pre-Advanced Placement strategies and skills as they relate to interpreting literary and primary source materials, analyzing conflicting interpretations and engaging in critical writing. Students earn one social studies and one English credit for the course. The honors level course also differs from the college prep level in the frequency and sophistication of writing assignments, pacing of the lessons and reading selections. Grade 10.

### **1243 AMERICAN STUDIES**

**Full Year 2 Credits**

The American Studies course, team-taught by the Social Studies, English, and Special Education Departments, offers an inter-disciplinary approach to the study of 20th century America. Fundamental to this course is a strong emphasis on skill building. Teachers will emphasize individualization in addressing the essential skills of reading, writing, speaking, and listening for each student. Students interact simultaneously with English, social studies and special education teachers, present in the classroom for two class periods each day. This allows for individualization and small group work in all areas of the curriculum. Textbooks, novels, short stories, poems, films, recordings, speakers and field trips are used in a multi-sensory approach to help students bridge the gap between subject areas and examine the components that combine to form our history and culture. Works have been selected that are both representative of the time periods and appropriate to the reading levels of the students. Students cross disciplines to develop writing, vocabulary, grammar, reading comprehension, research, computer, and analytical skills. Students are active learners, making extensive use of role-playing, simulations and presentations. Serious attention is also given to writing assignments which are process oriented, varied, and designed to build upon work begun in World Studies. Students earn one Social Studies and one English credit for the course. Grade 10.

### **2557 UNITED STATES GOVERNMENT AND CIVICS**

**One Semester .5 Credit**

This semester-long course provides students with a background in the foundations of American government and an understanding of the roles and responsibilities of engaged citizens. Students will examine the roots of American government found in seminal documents, like the Constitution, and analyze how those documents are still relevant today. In addition to examining the institutions

and processes of the three branches of government, students will analyze politics and policy from both an historic and current perspective. Units of study will also include an examination of elections, interest groups, political parties, and the media. Emphasis will be placed on civics by encouraging students to analyze how local, state, and national policies are made and the role those policies play in their lives. Throughout the semester, the course draws parallels between textbook information and contemporary issues. Grade 11, 12.

### **2555 ECONOMICS**

**One Semester .5 Credit**

This is one of two courses currently offered to fulfill the economics requirement. After a survey of the concepts of economic resources and their allocation, the course focuses on the areas of monetary and fiscal policy of the U.S. government. Timely concepts of constant concern to citizens, such as inflation and recession, are also studied. This course is taught in partnership with the Junior Achievement program and offers numerous hands-on activities, including creating a student company and developing a business plan. Grade 11.

### **2563 INTRODUCTION TO GOVERNMENT AND ECONOMICS**

**Full Year 1 Credit**

This yearlong, skill-oriented course offers a practical approach to citizenship and consumer choices. With an ongoing focus on developing reading comprehension, writing skills and oral expression, students explore practical consumer issues such as personal finance, career choices, handling credit, filing tax returns, being a wise health care consumer, and developing elements of a business plan. They apply the same hands-on approach to citizenship issues by studying the voting process, tracking political issues, making political choices, learning to use government services effectively, and dealing with government agencies. Students will also learn to apply the skills acquired in this course to contemporary issues. This course has been designed as a follow-up to World Studies (1233) and American Studies (1243). Admission is by recommendation of previous social studies instructor. Grade 11.

### **2665 CRIMINAL JUSTICE**

**One Semester .5 Credit**

This semester-long course provides students with a practical understanding of the American criminal justice system. Students will develop an understanding of the various phases in the criminal justice process, including the court system, the investigation of crimes, the trial process, and the corrections system. Specific units focus on the state and federal court systems, identifying types of crimes, assessing forms of punishment, analyzing the rights of the accused, and debating current issues in criminal justice. In addition to the traditional units of study, students will participate in a mock trial, and when possible, take a class trip to the county courthouse. Grade 11, 12.

### **2667 INTRODUCTION TO PSYCHOLOGY & SOCIOLOGY**

**One Semester .5 Credit**

This course combines psychology and sociology in a one-semester course designed to provide students the tools and insights of these two major social sciences. Although both disciplines study human behavior, the focus of sociology is the study of human interactions and relationships; psychology emphasizes the individual. The course will examine major topics such as culture, socialization, class and stratification, race and ethnicity, gender, social institutions, personality development, and abnormal behavior. Readings, observations, films, and projects will enhance the discussions. Grade 11, 12.

### **2678 CONTEMPORARY STUDIES**

**One Semester .5 Credit**

This semester long junior/senior elective explores political, social, economic and popular culture themes of contemporary society. The content is dynamic in that students will have input in the selection of timely topics to be studied as they emerge. The course relies heavily on in-class/library research, student multi-media presentations and class discussions. Guest speakers

will also be utilized when appropriate. An emphasis will be placed on alternative methods of student assessment. Grades 11, 12.

### **2150 AP HUMAN GEOGRAPHY**

**Full Year 1 Credit**

This College level course is designed for highly motivated 10<sup>th</sup> graders who want to begin to explore the AP curriculum and take an additional social studies credit beyond the required World and American Studies courses. Human Geography concerns the patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will use spatial concepts like maps and analysis of landscape data to examine human social organization and its environmental consequences. They will also learn about the methods and tools geographers use in their science and practice. Admission standards: Grade of B+ or higher in prior honors social studies course or an A in prior College Preparatory social studies course AND recommendation of 9<sup>th</sup> grade social studies teacher. A summer assignment is required for this course. Grade 10, 11, 12.

### **2550 AP U.S. HISTORY**

**Full Year 1 Credit**

A college-level course for the highly motivated and talented student, this course is an intensive study of U.S. history since the Colonial Period. Much emphasis is placed on interpretive reading and analysis of causes and effects of events and movements throughout the nation's history. In addition to reading the textbook, the student is expected to do extensive reading and research and to lead and participate in class seminars. A significant amount of work outside of the classroom can be expected. The student takes the Advanced Placement examination in the spring of the year. Admission standards: Grade of B+ or higher in American Studies honors, B or higher in previous AP Social Studies course, or recommendation of 10<sup>th</sup> grade social studies teacher. A summer assignment is required for this course. Grade 11, 12.

### **2660 AP EUROPEAN HISTORY**

**Full Year 1 Credit**

This college-level course is an intensive study of European History since 1450. Considerable emphasis is placed upon the interpretation and analysis of movements and events throughout the history of Europe. Along with the basic reading from the textbook, the student is expected to do library research and to participate in class seminars. Admission standards: Grade of B+ in honors social studies course; or a B or higher in a previous AP social studies course or recommendation of current social studies teacher. A summer assignment is required for this course. Grade 11, 12.

### **2570 AP U.S. GOVERNMENT AND POLITICS**

**Full Year 1 Credit**

Advanced Placement Government and Politics provides an analytical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. The course also makes frequent use of outside speakers from government and political party organizations. Students must have achieved a B+ or higher in honors social studies course, or B or higher in a previous AP course, or recommendation of current social studies teacher. A summer assignment is required for this course. Grade 11, 12.

### **2590 AP MICROECONOMICS**

**Full Year 1 Credit**

This full year course will cover basic economic concepts, the nature and function of product markets, factor markets, and the role of government in a market economy. Students take the Advanced Placement microeconomics examination in the spring of the year. Admission standards: Grade of a B or higher in a previous AP social studies course, or a B or higher in the Honors Algebra II course, recommendation from previous Social Studies teacher, or, at the

discretion of the AP Economics teacher, a score of 80% or higher on an entrance exam. A summer assignment is required for this course. Grade 11, 12.

### **2580 AP MACROECONOMICS**

**One Semester .5 Credit**

Macroeconomics includes the study of measurements of economic performance such as GDP, inflation and unemployment, national income and price determination. International economics is also taught in this course. Students take the Advanced Placement macroeconomics examination at the conclusion of the course in the spring. Admission standards: Grade a B or higher in a previous AP social studies, or a B or higher in the Honors Algebra II course, or a score of 80% or higher on an entrance exam administered by the AP Economics teacher. A summer assignment may be required for this course. Grade 12.

### **2670 AP PSYCHOLOGY**

**Full Year 1 Credit**

AP Psychology is a college-level course designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Some major areas of study include: the methods and theories of psychology, the biological basis of behavior, learning and cognition, developmental psychology, personality development, abnormal psychology, and social psychology. In addition to a significant amount of reading from a college-level textbook, students are expected to complete additional readings and activities that contribute to a deeper understanding of the content. Moreover, active participation in classroom activities and discussions is essential. Admission standards: Grade of B+ or higher in previous honors-level social studies class, or B or higher in previous AP social studies course, or recommendation of current social studies teacher. A summer assignment is required for this course. Grades 11, 12.

## **WORLD LANGUAGE**

The World Language Department offers students the opportunity to develop fluency in three major world languages: French, German and Spanish (*complete list of course sections in table below*).

Studies have shown that students who continue study of a world language (or world languages) beyond a bare minimum of two or three years, not only perform better on the World Language Achievement Tests, but generally also score higher on the verbal portion of the SAT and on tests of English composition. Most importantly, those students who continue world language study will be better prepared to live and work in the global community of the 21st century.

The President's Commission on World Language and International Studies states that "four years is considered a minimum prerequisite for usable language competence."

### **LEVEL I - FRENCH, SPANISH**

**Full Year 1 Credit**

This course is the student's first complete year of world language instruction. To a great extent, the course is built around CD's, videos, and other visuals, thus making it both audio-visual and audio-lingual. The development of proper speech patterns and elementary conversation in the language are the primary goals of this course. In addition, students are introduced to the reading, writing, and grammar of the language studied. Students dramatize dialogues and role plays and create their own skits. Cultural projects, games, and songs play an important role in the Level One course. Grades 9, 10, 11, 12

**LEVEL II - FRENCH, SPANISH****Full Year 1 Credit**

In French, German, and Spanish II, students build upon foundations laid in the previous course. In Level Two, students increase vocabulary and comprehension. They are able to say more about a wider variety of subjects. In addition to dialogues and texts dealing with the everyday world and the student's immediate environment, texts and conversations are used that cover various aspects of the geography, history, and culture of the countries and people studied. Grades 9, 10, 11, 12

**LEVEL III - FRENCH, GERMAN, SPANISH - HONORS****LEVEL III - FRENCH, GERMAN, SPANISH - COLLEGE PREP****Full Year 1 Credit**

This course is open to all students who have satisfactorily completed Level Two. The third-year course continues to develop the four major language skills: listening, speaking, reading, and writing. Much of the basic grammar of the particular language will have been introduced by the conclusion of this course. A summer assignment is required for these courses. Grades 9, 10, 11, 12

**LEVEL IV - FRENCH, GERMAN, SPANISH - HONORS****LEVEL IV - FRENCH, GERMAN, SPANISH - COLLEGE PREP****Full Year 1 Credit**

This course is open to all students who have satisfactorily completed Level Three. At the fourth level, students continue to develop vocabulary and oral and written comprehension. Major points of grammar are reviewed in this course. Students move from simple, highly directed conversation and composition to more complex forms. The content of the various reading texts becomes increasingly important. As students read, they gain valuable insight into the geography, history, art, music, and literature of the particular countries. Grades 10, 11, 12

**LEVEL V - FRENCH, GERMAN, SPANISH - HONORS****LEVEL V - FRENCH, GERMAN, SPANISH - COLLEGE PREP****Full Year 1 Credit**

This course is open to all students who have satisfactorily completed Level Four. The fifth year course is designed to further augment student vocabulary and to increase student ability to understand as well as generate spoken and written French, German or Spanish. Formal grammar instruction is limited to correcting specific problems which may exist. There is increased emphasis on the culture and civilization of the particular countries. Grades 11, 12

**LEVEL VI - FRENCH, GERMAN, SPANISH - HONORS****LEVEL VI - FRENCH, GERMAN, SPANISH - COLLEGE PREP****Full Year 1 Credit**

This course is open to all students who have successfully completed French, German, or Spanish V. It is intended for those students who wish to continue world language study through the end of their senior year. The College Prep and Honors curriculum are similar in scope, but the honors course requires more student presentations and a greater focus on student writing. The Level VI course continues to develop language skills, increase vocabulary, and refine grammar for both levels. Here students gain increased knowledge of the culture and civilization of the countries whose language they are studying. Reading, while often literary in nature, is done primarily for comprehension. Grade 12

**AP LANGUAGE - FRENCH, GERMAN, SPANISH****Full Year 1 Credit**

All students who have satisfactorily completed Level Five Honors or its equivalent are eligible for the Advanced Placement course. This is a college level course, for which many colleges and universities grant college credit. Students are urged to consult prospective colleges regarding credit for Advanced Placement courses. In the Advanced Placement courses, students continue to develop and refine the various language skills. Students study a small number of longer works,



e.g., novels and dramas, as they prepare for the Advanced Placement Examination which is given in the spring of each year. Along with knowledge of the literature, the student develops a greater understanding of the world language, culture, and people. A summer assignment is required for the AP level Spanish and German Language and Culture courses. Grade 12

**AP LITERATURE - SPANISH**

**Full Year 1 Credit**

Those students who have successfully completed the Spanish V (Honors) course are eligible to further their studies in Spanish with the AP Spanish Literature course. The course is reading and writing intensive with a goal of critiquing students' analytical skills and broadening their scope of Spanish and Latin-American texts. This course analyzes diverse texts from the Medieval and Golden Age and the nineteenth and twentieth centuries. The reading list is comprised of poems, short stories, and chapters from larger texts. After successful completion of this course, students will have the necessary tools to analyze and appreciate Peninsular and Latin-American literature. A summer assignment is required for this course. Grade 12

**World Language Course Selections**

5375 Spanish I	5175 French I	5231 German III H
5385 Spanish II	5185 French II	5232 German III-CP
5331 Spanish III H	5131 French III H	5241 German IV H
5332 Spanish III-CP	5132 French III-CP	5242 German IV-CP
5341 Spanish IV H	5141 French IV H	5251 German V H
5342 Spanish IV-CP	5142 French IV-CP	5252 German V-CP
5351 Spanish V H	5151 French V H	5261 German VI-H
5352 Spanish V-CP	5152 French V-CP	5262 German VI-CP
5361 Spanish VI-H	5161 French VI-H	5260 AP German Language
5362 Spanish VI-CP	5162 French VI-CP	
5360 AP Spanish Language	5160 AP French Language	
5370 AP Spanish Literature		

# Eastern Center for Arts and Technology 2018-2019 High School Program Offerings

## CAREER PROGRAMS

7:45 - 10:30 a.m. OR 12:00 - 2:45 p.m.

Allied Health  
Automotive Technology  
Business and Technology Professional  
Collision Repair Technology  
Commercial Art  
Computer Network Administration  
Construction Technology  
Cosmetology  
Culinary Arts  
Electrical Technology  
Heating, Ventilation and Air Conditioning  
Protective Services  
Veterinary Science  
Welding Technology

## **PROGRAMS AT EASTERN CENTER FOR ARTS AND TECHNOLOGY**

EASTERN is accredited by the Middle States Association of Colleges and Schools. The campus is located in Willow Grove and is owned by nine school districts in Eastern Montgomery County. They include Abington, Bryn Athyn, Cheltenham, Hatboro-Horsham, Jenkintown, Lower Moreland, Springfield, Upper Dublin and Upper Moreland.

More information about EASTERN is available at [www.eastech.org](http://www.eastech.org).

Programs taken at EASTERN are considered part of the high school program and count as elective credit toward graduation. Programs enrich the student's high school experience. They give students the opportunity to reinforce their career path after high school, get a head start in collegiate studies in that field and get ready for employment. Most of the half-day programs offer advanced placement college credit opportunities for students continuing their education after high school in similar majors.

**Career programs** are scheduled 5 days a week for 2 hours 45 minutes from 7:45 a.m.–10:30 a.m. or 12:00 p.m. to 2:45 p.m. in 14 career areas and are primarily offered to 11th and 12th grade students. They are recommended as a two-year sequence for students,

except Allied Health, which is a senior-only option. If space is available, one-year seniors are accepted into all programs.

-A work experience program is available to qualified second-year students incorporating on-site job experiences with classroom learning.

-Many programs offer advanced placement/college credit options at colleges like DeVry University, Johnson & Wales University, Pennsylvania College of Technology, Lincoln Technical Institute, CHI, Harcum College, and Bucks and Montgomery County Community Colleges.

**EASTERN students may qualify for up to 9 free college credits through Perkins statewide articulation agreements. All statewide articulation agreements can be found at [www.collegetransfer.net/Search/PABureauofCTESOARPrograms/tabid/3381/Default.aspx](http://www.collegetransfer.net/Search/PABureauofCTESOARPrograms/tabid/3381/Default.aspx)**

**Students/parents will be solely responsible for tuition and fees for MCCC dual enrollment.**

**Please note that there are course material fees for tools of the trade and required clothing related to several programs. Families with a financial need should contact Amy Shields, 215-784-4806, or Joe Greb at 215-784-4800 Ext. 110.**

# ***EASTERN CENTER FOR ARTS AND TECHNOLOGY***

**2018-2019**

## **PROGRAM INFORMATION**

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### **ALLIED HEALTH**

Be sure a career in a health field is for you by attending EASTERN's Allied Health program!

- This one-year senior-only program is designed for students with rigorous academic preparation who plan to continue their education in college to prepare for a career in the health field. Students will get extensive clinical experiences partnering with health professionals at Abington-Jefferson Health two days a week beginning in October. This program offers the potential of earning college credits at Montgomery County Community College at reduced tuition rate. This unique opportunity provides students with a first-hand look at the many healthcare careers available to them.
- Career Objectives:
  - A career in the allied health field requiring postsecondary education
- Prerequisites:
  - Grade of 'C' or better in Algebra I & II, Biology and Chemistry (College Prep Level)
  - High school GPA of 2.5 or higher
  - Physical exam and police check as mandated by state law
  - Child abuse clearance
  - PPD (tuberculosis skin test)
  - Flu shot required
  - No disciplinary issues at the participating high school
  - Good attendance
- Certifications students can earn:
  - CPR
  - AED
  - First Aid for Health Care Providers
- College Advantage:
  - Dual enrollment for up to 3 transferable credits at Montgomery County Community College.
- With higher education, this program prepares the student for success in such career fields as:
  - *Nurse, radiology technologist, and physician's assistant.*
- Students have continued their education at:
  - ARIA Health, Abington Dixon School of Nursing, Arcadia University, Cedar Crest, Gwynedd Mercy University, Holy Family University, LaSalle University, MCCC, Moravian College, West Chester University, York College, and Widener University.

**Materials and fees: Approximately \$350 - \$375 (not including MCCC tuition)**

### **AUTOMOTIVE TECHNOLOGY**

Take this program to get a head start in the automotive field!

- This two-year career program is designed for the student who is serious about working in the automotive industry. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Automotive Technician Trainee; Maintenance and Light Repair; Under Car Specialist

- The curriculum, facility and instructor are:
  - National Institute for Automotive Service Excellence (ASE) accredited
  - Partners with the Automotive Youth Educational Systems Program (AYES) to provide qualified juniors with experiences at participating dealerships and paid summer internships
- Certifications students can earn:
  - ASE qualifying exams (after completing a reduced period of work experience in the Automotive Industry), and (S/P2) Safety and Pollution Prevention certifications. An optional Mobile Air Conditioning Service Certification test will be available to students for a fee.
- Students also qualify for advanced standing through an articulation agreement with:
  - Lincoln Technical Institute – up to three courses
  - Pennsylvania College of Technology - advanced placement
  - Universal Technical Institute (UTI) for up to four Auto Tech courses
- With higher education, this program prepares the student for success in such career fields as:
  - Automotive service, engineering and design, manufacturer representative, and automotive insurance industry/damage appraisal and testing.
- Students have continued their education at:
  - ATC, Lincoln Tech, MCCC, Ohio Technical College, Pennsylvania College of Technology, Thaddeus Stevens College of Technology, Universal Technical Institute, and University of Northwestern Ohio.

**Materials and fees: Approximately \$50 - \$100**

### **BUSINESS AND TECHNOLOGY PROFESSIONAL**

The Business and Technology Professional program will prepare students for a career in a professional office environment. This program can provide students with advanced placement in Montgomery County Community College's Office Administration program.

- In this two-year half-day program students study the current Microsoft Office applications including Word, Excel, PowerPoint, Outlook, and other communications technologies.
- Career Objectives:
  - Executive Administrative Assistant; Administrative Assistant; and Clerk
- Students will leave the program well-versed on creating spreadsheets; composing correspondence; managing databases; creating presentations; document management; and on the use of office machines. Students will enhance their communication, independent thinking, problem-solving, interpersonal, and soft skills.
- College Advantage:
  - Advanced placement for up to 9 credits at Montgomery County Community College
- Students enrolled in the Business and Technology Professional program will prepare for postsecondary education or employment in careers such as Office Manager, Data Input Specialist, Customer Service Representative, Business Administrator, Business Analyst and Accounting Clerk.

**Materials and fees: Year 1 - approximately \$387; Year 2 – approximately \$187. Fees are subject to change based on MCCC tuition rates. Business attire required. Access to a working computer (Windows) is a must.**

### **COLLISION REPAIR TECHNOLOGY**

You'll meet industry standards to be a success in this field!

- A student enrolled in this two-year career program benefits from a combination of classroom instruction and hands-on experience needed to carry out repairs on motor vehicles.

- Students benefit from the use of I-Car (Inter-Industry Conference on Auto Collision Repair) enhanced curriculum. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Automotive Refinisher; Sheet Metal/Cosmetic Repair Person; Frame/Structural Repair Person; Automotive Refinisher's Helper - (one-year students)
- Program Certification:
  - This is one of only seventeen secondary programs in Pennsylvania certified by the National Institute for Automotive Service Excellence (ASE) for meeting industry standards.
- Certifications students can earn:
  - Safety and Pollution Prevention (S/P2) certification; Collision Repair Technology is an approved member of the I-CAR Industry Training Alliance.
- Advanced Placement:
  - Students may qualify for advanced placement college credit at Pennsylvania College of Technology.
- With higher education, this program prepares the student for success in such career fields as:
  - Automotive, marine and aeronautic service, new car design, manufacturing representative, insurance industry damage appraisal and testing, race car fabrication and vehicle engineering, metal fabrication, safety design engineering, technical writing, consumer information technologies, collision test engineering and teaching.
- Students have continued their education at:
  - ATC, Lincoln Tech, MCCC, Ohio Technical College, Pennsylvania College of Technology, UTI, and Wyotech.

**Materials and fees: Approximately \$130 - \$175**

### **COMMERCIAL ART**

You'll develop your own portfolio!

- This two-year career program covers everything from conceptual drawing and design to a professional portfolio; students learn the value and application of their unique styles in both design and illustration; and students use industry-standard software on the Macintosh Platform. Software includes: Adobe InDesign, Adobe Photoshop, Adobe Illustrator, Dreamweaver and Flash. One-year seniors will be considered if space is available.
- Career Objectives:
  - Graphic Design; Commercial Illustration; Digital Imaging Design
- Upon Completion of the program:
  - Students will have a portfolio consisting of items a committee of art college representatives established.
  - Senior students will have their portfolios reviewed by art school representatives.
- Advanced Placement:
  - Students may qualify for advanced placement college credits at Pennsylvania College of Technology.
- With higher education, this program prepares the student for success in such career fields as:
  - Graphic design, illustration, animation, computer-generated graphic art, teaching and multi-media specialist.
- Students have continued their education at:
  - Art Institute of Philadelphia, Drexel University, Fashion Institute of Technology, Hussian School of Art, IUP, MCCC, Northampton Community College, Pennsylvania College of Technology, Penn State Abington, Temple/Tyler School of Art, University of the Arts, University of Massachusetts, and West Chester University.

**Materials and fees: Approximately \$125 - \$155.**

## **COMPUTER NETWORK ADMINISTRATION**

Would you like to be a college student while still in high school? While in EASTERN's Computer Network Administration program, you can choose to enroll in Montgomery County Community College for up to 12 transferable credits! More and more businesses need network administrators now. Get your start here!

- Students must pass the Certified Linux Administrator (CLA) exam in the first year of the program and are prepared for other industry certification exams, including Cisco Certified Entry Network Technician (CCENT). One-year seniors will be considered if space is available in the program.
- Career Objectives:
- Computer Network Administrator, Linux Administrator - (one-year students)
- Prerequisites:
- Strong math background (Algebra II completed or scheduled during the first year of the program)
- College Advantages:
  - Dual Enrollment for up to 12 transferable credits at Montgomery County Community College
  - Guaranteed admission into Penn State Abington's School of Information Sciences and Technology if they meet PSU criteria Advanced placement at Pennsylvania College of Technology
- Career Fields:
  - Computer Network Administrator; Linux Administrator
- Students have continued their education at:
  - MCCC, Penn State Abington, Pennsylvania College of Technology, Temple University, Drexel University, DeVry University, and IUP.

***Materials and fees: Approximately \$400-\$600 per year (includes college tuition and books). Access to a working computer (Windows) is a must.***

## **CONSTRUCTION TECHNOLOGY**

Get satisfaction from building projects and working with current materials used in the field to refine your construction skills!

- This two-year career program is the first step for students interested in pursuing a successful career in the construction field. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Carpenter Pre-Apprentice; Exterior Remodeling and Installation; Roofing & Siding
  - Helper - (one-year students)
- Students will work on both residential and commercial construction in the school's shop area.
- Certification students can earn:
  - Occupational Safety & Health Administration (OSHA 10) certification
- Advanced Placement and Apprenticeship:
  - Students may qualify for advanced placement college credit at Pennsylvania College of Technology or want to consider an apprenticeship program after high school.
- With higher education, this program prepares the student for success in such career fields as:
  - Architecture, general contracting, teaching, surveying, construction management, construction technology, civil engineering, architectural engineering, code enforcement and insurance adjustor.
- Students have continued their education at:

- Drexel University, MCCC, Pennsylvania College of Technology, Penn State Abington, Thaddeus Stevens College of Technology, and Williamson Trade School.

**Materials and fees: Approximately \$85 - \$100**

### **COSMETOLOGY**

Save thousands of dollars by taking this program in high school!

- This two-year program will provide the skills necessary to begin a career in the cosmetology field. In Pennsylvania, as well as other states, cosmetologists must be licensed to practice in the field. One-year seniors will be considered if space is available in the program.
- Career Objective:
  - Cosmetologist
- Certification students can earn:
  - Pennsylvania State Board of Cosmetology - licensed cosmetologist
- With higher education, this program prepares the student for success in such areas as:
  - Management, teaching, product representation, and development and design
- Students have continued their education at:
  - Ambler Beauty Academy, Bucks County School of Beauty, DeVry University, Empire, IUP, Johnson & Wales University, Kutztown University, Lansdale Beauty School, Make-up Designory School (NYC), Penn State Abington, Temple University, and West Chester University.

**Materials and fees: Approximately \$500 - \$650**

### **CULINARY ARTS**

Build your culinary skills and techniques at EASTERN so you can compete in this field! Students also have the potential to earn up to nine transferable college credits through an articulation agreement with Montgomery County Community College and Pennsylvania state technical colleges.

- This two-year half-day program enables students to acquire a variety of skills including soup and sauce preparation, preparation of meat, fish and poultry entrees, baking, kitchen sanitation, purchasing and inventory controls. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Prep Cook; Cook Apprentice; Pantry Person; Kitchen Helper
- Certifications students can earn:
  - ServSafe Food Handlers certification, which is an entry-level food safety training and certificate program administered by the National Restaurant Association. Students may also receive the ServSafe Manager certification, which is required in a food services supervisory role.
- Culinary students continuing their education in this field can benefit from college credit articulation agreements with:
  - Johnson & Wales University (for up to 13.5 quarter credits)
  - Bucks County Community College (14 quarter credits)
  - Students may also qualify for advanced placement college credit at Pennsylvania College of Technology
  - Articulation credit with Montgomery County Community College
- With higher education, this program prepares the student for success in such career fields as:
  - Food and beverage management, purchasing, teaching, food science, food manufacturing, pastry, food styling and retail food management.
- Students have continued their education at:



- Art Institute of Philadelphia, Baltimore International Culinary School, Bucks County Community College, Culinary Institute of America, Indiana University of PA, Culinary Institute of America, Delaware State University, Delaware Valley College, Drexel University, Johnson & Wales University, Millersville University, Montgomery County Community College, Penn State, Culinary Institute of America, Scottsdale Culinary Institute, Temple University, The Restaurant School, and Widener University.

**Materials and fees: Approximately \$135 - \$150**

### **ELECTRICAL TECHNOLOGY**

Our training will provide the essential hands-on and safety skills that a student needs to pursue a rewarding career in the electrical construction industry.

- This two-year multi-faceted career program enables the student to learn the basics of electricity as well as residential and commercial wiring, data cabling and basic fiber optic installation. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Retail Sales; Electrician's Helper; Maintenance Helper; Electrician
- Prerequisites:
  - Good color vision
  - Ability to climb moderate heights on a ladder
- Certification students can earn:
  - Occupational Safety & Health Administration (OSHA 10) certification
- Advanced Placement and Apprenticeship:
  - Students may also qualify for advanced placement college credit at Pennsylvania College of Technology or want to consider an apprenticeship program after high school.
- With higher education, this program prepares the student for success in such career fields as:
  - Residential or commercial electrician, electrical engineering, teaching, computer systems engineering, communications engineering and development.
- Students have continued their education at:
  - BCCC, CHI, EASTERN's Continuing Education Electrician Program, MCCC, Pennsylvania College of Technology, Temple University, Thaddeus Stevens College of Technology, and Williamson Trade School.

**Materials and fees: Approximately \$75**

### **HEATING, VENTILATION AND AIR CONDITIONING**

There is always a demand for these services!

- This two-year career program provides a comprehensive foundation of the basic theories and principles of heating, air conditioning and heat pump systems. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Heating and Air Conditioning Installation Technician; Heating and Air Conditioning Service Technician; Retail Sales, Heating and Air Conditioning Helper - (one-year students)
- Certifications students can earn:
  - Occupational Safety & Health Administration (OSHA 10) certification, Gastite, and TracPipe.
- Advanced Placement:
  - Students may also qualify for advanced placement college credit at Pennsylvania College of Technology.
- With higher education, this program prepares the student for success in such career fields as:

- Residential heating, air conditioning, mechanical technology, mechanical engineering, insurance consultant and building maintenance.
- Students have continued their education at:
  - Orleans Tech, Pennsylvania College of Technology, Penn State Abington, and Thaddeus Stevens College of Technology.
- **Materials and fees: Approximately \$95 - \$145**

### **PROTECTIVE SERVICES**

You'll earn several certifications to give you a head start on careers in this field!

- This two-year career program prepares the student to enter a career related to law enforcement, criminal justice, fire science, industrial safety and security, and Emergency Management Systems (EMS) preparedness. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Police; Fire Fighter; Industrial Security - (one-year students), Emergency Medical Services, Corrections, Emergency Management
- Program Prerequisite:
  - The student must undergo a state police check to enroll in the program and work in this field.
- Certifications students can earn:
  - Hazardous Materials Awareness through testing by Bucks County Fire Academy, Adult CPR through testing by the Red Cross, Standard First Aid through testing by the Red Cross, and Gas and Electrical Awareness through PECO. Students also earn certificates in the National Incident Management System levels 100, 200, 700, and 800.
- With higher education, this program prepares students for success in such career fields as:
  - Criminal Justice, teaching, firefighting, security, corrections and EMS.
- Students have continued their education at:
  - Alvernia University, Bloomsburg University, CHI, CC of Philadelphia, Kutztown University, Lock Haven, Millersville University, MCCC, Penn State Altoona, Point Park University, Shippensburg University, and all branches of the U.S. Military.

**Materials and fees: Approximately \$200**

### **VETERINARY SCIENCE**

Do you enjoy taking care of your family pet? You can turn your love of animals into an exciting career with EASTERN's Veterinary Science program. Veterinary Science provides the opportunity to pursue a career in the animal care industry, and will provide students with a working knowledge of small animal industries. One-year seniors will be considered if space is available in the program.

- This two-year half-day program, students will learn to support veterinarians by providing assistance during animal examinations; treatment administration and monitoring; managing animal and related health record information; and how to perform a range of selected practice-related duties.
- Career Objectives:
  - Veterinary Technician, Veterinary Assistant Prerequisites:
    - Grade of 'C' or better in Algebra I & II
    - Grade of 'C' or better in Biology or Advanced Science Course (College Prep Level)
    - High school GPA of 2.5 or higher
    - No Animal Allergies
    - No disciplinary issues at the participating high school

- Good attendance
- Certification students can earn:
  - Upon successfully completing the PMI Laboratory Animal Care course, students will receive a PMI course completion certificate.
  - Students enrolled in the Veterinary Science program will prepare for post-secondary education in Veterinary Sciences or employment in careers in a veterinary hospital, pet and pet supply store, grooming salons, kennel, animal humane societies, farms and ranches.
  - Students enrolled in this high priority occupation program are expected to take college prep academics as well as excel at their technical studies to qualify for advanced credits, reduced fees, or advanced standing at postsecondary institutions with which we have articulation agreements.
  - This program is a great stepping stone for continued Veterinary Science education at colleges such as Harcum College, Manor College, and Delaware Valley University.

**Materials and fees: Approximately \$100 - \$375**

### **WELDING TECHNOLOGY**

Good welders make good money...learn how at EASTERN!

- This two-year career program is designed for the student who is interested in the industrial engineering field. One-year seniors will be considered if space is available in the program.
- Career Objectives:
  - Combination Welder; Welder/Fabricator; MIG Welding
- Students will learn about the properties of different types of metals and how to join them using
  - state-of-the-art welding equipment
- Certification students can earn:
  - Occupational Safety & Health Administration (OSHA 10) certification.
- Advanced Placement:
  - Students may also qualify for advanced placement college credit at Pennsylvania College of Technology.
- With higher education, this program prepares students for success in such career fields as:
  - Mechanical, aerospace or industrial engineering, physical metallurgist, business owner, teaching, equipment sales and welding engineer.

**Materials and fees: Approximately \$260**

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