

METHACTON HIGH SCHOOL PROGRAM PLANNING GUIDE

Mission Statement

The Methacton School District, with its strong tradition of excellence, will challenge all students to achieve their greatest potential and create a vibrant community of learners who appreciate diversity and will lead and succeed in a dynamic global society.

Learn, Lead, Succeed -- Together

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A Message to Students and Parents

This Curriculum Guide provides information and direction to students and parents as they begin the course selection process for the 2019-2020 school year. Through this booklet, the administration, school counselors, and teachers present a comprehensive listing of the varied course offerings available. Included are clear guidelines regarding pre-requisite courses, qualifying grades, sample schedules, as well as descriptions of individual courses to help students and parents make informed choices for the upcoming academic year.

A student's high school academic program decisions are very important. The competition for college entrance, job placement, and the need for increased preparation and new graduation requirements have made these selections more important than ever. The process of making course selections works best when it is a collaborative partnership between school personnel, students, and parents. Our goal is to challenge every student while affording them the opportunity to learn without overwhelming them. With the best interests of the student in mind, we want to be involved in this process by providing you feedback about past performance and future course expectations.

For the course selection process to be effective, parents and students are encouraged to be familiar with the contents of this online guide. Our counselors are available to answer questions you may have regarding courses and course selection. Students and parents are encouraged to consult with them and any other member of our teaching staff to obtain the maximum benefit of their expertise during course selection.

Finally, to develop an effective academic program, a student should have a goal toward which he or she is working. Our counselors have been using Naviance as an online tool to help students identify their areas of greatest interest. I strongly encourage you, as parents, to discuss academic goals with your child. If your student has a clear goal, help him/her align the chosen academic program to meet that end. While our state and local graduation requirements provide a general framework, there is no substitute for customizing a program toward an identified goal. I encourage you to use the resources and services available through our school counseling office and Naviance as you set goals and collaboratively plan the best academic program to reach them. Best wishes and good luck to you during your academic planning.

Jason F. Sorgini– Principal

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COUNSELING DEPARTMENT

Mr. Peck	A-CI	Ext. 25032	Mr. Ruminski	Lo-Pa	Ext. 25028
Mr. Howard	Co-G	Ext. 25408	Ms. Olitsky	Pe-Sr	Ext. 25031
Mr. Midgley	H-LI	Ext. 25029	Mrs. Hartson	St-Z	Ext. 25038

GENERAL INFORMATION

Admission Requirements

To be eligible for admission to Methacton Senior High School, a student shall be a Methacton School District resident and have satisfactorily completed eighth grade as described and mandated by the Department of Education of the Commonwealth of Pennsylvania.

Course Selection Procedure

Department coordinators and teachers provide counselors with a curriculum update prior to course selection meetings for students and parents. Teachers will be completing their online course recommendations in advance of the period of student course selection and will be communicating these recommendations to students.

Information for parents of 8th grade students planning to attend high school the next school year will be made available on the District website and department coordinators will be made available to address specific course progression questions. Discussions in classrooms regarding the sequential courses in the subject area will be held after mid-term exams. For additional assistance, there will be information shared via video posted to the

MHS website about Advanced Placement (AP) and Dual Enrollment (DE) classes. This informational video provides course descriptions and dialogue with both teachers and students for those interested in enrolling in AP or DE classes now, or for those who desire more information for future course planning.

The 8th grade students will be scheduling in Arcola computer labs with both Arcola and High School Counselors there to assist.

Current 9th, 10th, and 11th grades students will schedule in their current English class during the established scheduling time of February 11-14 and 19-20. Parents will be provided a course selection verification form to acknowledge the selections made by students. In the event that parents have a question or concern about the selected courses, a signed verification form requesting an individual meeting for your child with his/her school counselor must be returned to your child's homeroom teacher no later than March 8.

Each student should carefully select those subjects that will comprise his/her program for the next school year. Students are encouraged to seek assistance and advice from their parents, teachers, and counselors. It is critical that all students complete these requests during these windows because staffing is based on the outcome of the student requests. Once these staffing decisions are made, alterations to the student requests cannot be guaranteed..

The teacher recommendation in PowerSchool indicates that the student is on track to finish the current course with the pre-requisite score to continue in the sequence indicated. The teacher placements reflect current student performance and the expectation of them reaching the pre-requisite scores for the next course in the strand. All teacher determined placements in February are subject to re-evaluation later in the year (close of the 3rd marking period). Parents will be notified by teachers of any necessary changes.

Scheduling eight to twelve course requests for more than 1500 individual students is a very complex process. Every effort is made to design a master schedule that will accommodate the greatest number of primary course requests (first choices) possible. Providing student placement into courses that reflect their talents, interests, and abilities is our highest priority and responsibility throughout the yearlong scheduling process. To that end, specific teacher requests cannot be accepted or honored because they negatively affect fulfilling primary course requests. Please also note: many elective courses can be “**cascaded**” to allow students to schedule the elective together with other courses such as science labs (e.g. Band five periods per cycle and a Science Lab one period per cycle). Students would then not attend the elective on the day of the cycle on which the lab is scheduled. Counselors can work with students who are interested in scheduling an elective course in this manner. Please contact your assigned counselor directly if this applies to you.

Subject Level Placements

Placement of a student in the various levels of a subject shall be made by the professional staff and shall be based on the data collected during the year and determined by the required final course averages depicted in the following pages of this guide.

Waiver Procedure

Methacton encourages our students to choose academically challenging courses that will inspire them to work to their fullest potential. It is also important to recognize the relevance of established prerequisites that have been identified as important to the successful completion of a variety of our courses. In seeking to balance the desire for academic challenge with the importance of meeting prerequisites, the **waiver policy** has been established. This policy allows students to schedule academic courses if the grades they have earned are within three (3) percentage points of the established

prerequisite criteria.

During the time of course selection, students must meet all established prerequisite requirements from past coursework when choosing a specific course. The overall course average that the student has earned in the current course of study at the midpoint of the academic year will determine the teacher recommendation for the next course in the progression. Students who wish to schedule an Honors or AP level course but whose midyear grade is below the established prerequisite will be informed that they have the third marking period to earn an overall course grade that is within the three percentage points associated with the waiver. If at the end of the third marking period the student has earned a grade that is at or above the prerequisite, he or she may contact the Counselor and have the course selection changed. If the student is within the three-percentage point waiver range, he or she may submit a waiver request to the Department Coordinator for the subject in which the course is assigned. Students are responsible for making this request directly to the Coordinator (see list below). This request must be made by no later than one week after the issuance of third marking period report cards (specific date established annually by the school calendar).

Additionally, any student who did not meet the prerequisite requirement at the end of the third marking period but who earns an overall course grade that meets or exceeds this prerequisite contact his or her assigned school counselor by June 15 to schedule the more challenging course. Additionally if the overall grade earned by the student falls within the three-point waiver range, a waiver form may be submitted to the appropriate subject area coordinator. Any waiver submission based on end-of-year grades must be submitted via email to the appropriate Department Coordinator by June 21. **No extensions will be granted past the deadline.**

Prerequisites and waivers are designed to provide students with the best possible guidance toward academic success while still encouraging students to undertake challenging academic studies. Adherence to this policy will not be subject to administrative override.

· **Department Coordinators:**

- Art: Ms. Beth Hall
- Business/FCS/Technology: Mr. Chris Lloyd
- English: Mr. Steven Rice
- Health/Physical Education Mr. Jeffrey Derstine
- Mathematics: Mr. Nathaniel Ryan
- Music Mrs. Susan Basalik
- Science: Mr. Steven Savitz
- Social Studies: Mr. Adam Sussman
- World Language: Mrs. Mary Phelps

Methacton High School Course Request Waiver Form

Students and parents must complete this form when requesting a waiver to schedule a course for which the student has not met the prerequisite requirements but who's earned grades fall within three (3) percentage points of the established requirements. The form should be printed in hard copy, signed by both the students and his/her parent(s) and delivered to the subject area Department Coordinator (listed above) for the requested course. This form is due to the Department Coordinator no later than the established midpoint date of the fourth marking period.

Student Name: _____

Current Teacher: _____

Current Course: _____

Current Grade to date in this Course: _____

Course Requested _____

Grade Requirement for Requested Course: _____

My child and I are opting to enroll him/her in a course that is more academically challenging than the teacher recommended course even though he/she falls below the minimum established prerequisite grade average. We acknowledge that this waiver is for an entire school year and recognize that no change will be made to his/her schedule without the student incurring a grade of Withdrawal/Fail (WF) (59% or lower) for the course. A WF constitutes a failing grade and may affect athletic/activity eligibility and GPA for the year.

Student Name (Print): _____

Student Signature: _____

Date: _____

Parent Name (Print) _____

Parent Signature: _____

Date: _____

Deadline for Changes

All requests for changes NOT related to level changes in student schedules must be received in writing no later than June 7, 2019. (Ex. Taking a different elective or dropping a course that is not a graduation requirement.)

Course Change Request - Prior to Deadline

All change requests will be honored, if possible. However, certain requests may be impossible to honor because of enrollment mandates, number of sections, conflicts with other courses selected, etc. To make a change, the student must provide to his/her current school counselor:

- A signed parental note indicating the course to be deleted, added, etc.
- Include the student's name, grade, and ID number

This must accompany all requests. All change requests must meet any associated prerequisite guidelines.

Course Change Requests – After Deadline

Changes on a student's schedule program after the deadline of June 7, 2019, are limited to:

- A) Successful completion of summer school, private tutoring.
- B) Computer/mechanical/clerical errors.
- C) Failure to pass a sequential course.
- D) Movement from one school to another.
- E) Change in post-secondary planning.

Course Change Request – During School Year

Schedule changes are not routinely permitted during the school year, although extreme and/or unusual circumstances may dictate change. Once the year begins, students are expected to continue in and complete the courses selected for the official schedule.

Should a request be made for a course to be changed or dropped within the first three weeks of the school year, the student will carry the grade achieved in the course to the course they pick up in its place. (If enrolled in Honors English and switching to Academic English, the grade earned in Honors will be transferred and calculated into the marking period for the Academic class.)

After the first three weeks of the school year, dropped courses will result in a Withdrawal Fail (WF). This will appear on the transcripts for the student and will be calculated as a failed credit for the remainder of the year.

NOTE: Students who are failing 2 or more credits are ineligible to participate in athletics or clubs until the failure(s) is(are) rectified.

Acceleration

Methacton features a comprehensive, sequential curriculum designed to meet the academic needs of all students within their high school career. In accordance with Methacton School Board Policy 124.1, "Acceleration through advanced or accelerated courses, pre-graduation college courses, summer work and other enrichment opportunities are encouraged by the Board. The Board will follow all applicable state laws when enforcing this policy."

Be advised that at the time of this publication and due to state graduation requirements, Algebra I, and English 10 are not eligible for acceleration because students must pass a Keystone Exam to be awarded a diploma. Honors Biology is available for acceleration only for students attaining a $\geq 95\%$ in Environmental 9 Honors. Any Honors Biology acceleration student must be available to take the Biology Keystone Exam during the established Keystone testing window on the offered date with **no exception**. Failure to score proficient will result in the student having to drop Chemistry to take Biology.

The complete information about how to accelerate is available online in the Parent/Student Handbook. Acceleration Request Forms are available in the School Counseling Office and must be completed **before June 1, 2018**. If the request is approved, acceleration grading/credit guidelines will be given to the student.

Methacton will not recognize any course for credit unless this procedure is followed and completed in advance of the course(s) being taken.

Withdrawal/Fail Policy

Withdrawal/Fail (WF) is a grade given rarely and reluctantly. It is expected that the student will benefit from, complete, and accept the final grade of the course begun. A schedule may be modified due to unusual circumstances within the first three weeks of the school year. However, following that window, a grade of WF is recorded. A WF is recorded only after teacher input, parental contact, and administrative approval. A WF form must then be completed. It is important to select courses wisely and take into consideration the out-of-class workload that will be experienced with honors and AP level courses. Transferring to another level or section is not without Grade Point Average (GPA) ramifications and eligibility consequences (see Course Change above).

The WF will be posted to the report card until the grade earned by the student at the time of withdrawal is entered as the final course grade. The WF final grade percentage (or a 59% in the rare instance of a passing grade) will be factored into a student's GPA, class rank, and eligibility. The credit value of the course from which the student withdraws will count as a failure for eligibility for sports and co-curricular activities for the remainder of the year. Failing two or more credits will result in a student being ineligible to participate in sports teams and clubs, groups, and school organizations (theater, band, class congress, etc.)

PLEASE BE ADVISED that students scoring less than 50% OR withdrawing from a course may not remediate that course, but must instead repeat the full course.

WARNING, this may impact a student's ability to graduate on time with his or her cohort class if multiple credits must be repeated.

Weighted Courses

Honors level courses will be multiplied by a factor of 1.1 when attempting to determine a grade point average for class rank. Advanced Placement courses will be multiplied by a factor of 1.2 for all students. Dual Enrollment (DE) courses are weighted as 1.1 and are identified beside the course in this Program Planning Guide. Over time, DE has proven to share a similar workload to our honors classes and is weighted accordingly.

Note: These weighted GPAs are not used for any internal purposes beyond the class rank.

Six-Day Cycle

This High School operates on a six-day cycle schedule. Each day is alphabetized from A to F rather than identified by the weekday name. This scheduling method has several advantages. It accommodates a more efficient use of the special classroom facilities and guarantees the continuity of days despite the holiday calendar, or weather related interruptions.

Bell Schedule

The schedule uses the term "periods" but still works in a modular fashion to accommodate a 30-minute lunch scheduled between 11:14am to 1:28 pm. For each student there are seven instructional periods in a day plus a lunch (designated as A, B, or C). We run a 6-day cycle (A, B, C, D, E, and F). In this document, a period is a unit of time in the day that equals a 47-minute time block. The number of times a class meets over the year converts to Credits Earned. The students' homeroom starts at 7:35am and the day ends at 2:20pm.

Credits and Graduation Requirements

Credits Earned

6 periods per cycle-all year	1.0	(this represents core courses and some major electives)
6 periods per cycle-one semester	0.5	(this represents many of our electives)
2 periods per cycle-one semester	0.3	(this represents PE when partnered with a science lab)
3 periods per cycle-all year	0.5	(this represents many of our electives)
3 periods per cycle-one semester	0.25	(this represents many of our electives)
7 periods per cycle-all year	1.2	(this represents our single lab science classes)
8 periods per cycle-all year	1.3	(this represents our double lab AP science classes)

Minimum and Maximum Credit Schedule

To be considered a full-time student, the schedule must maintain the following minimum credits per year.

Grade 9	6.0 credits per year
Grade 10	6.0 credits per year
Grade 11, 12	6.0 credits per year

A student schedule is full when the minimum credits are scheduled. Students may schedule up to a possible 7.4 credits in a single year.

Graduation Requirements and Course Credit for Promotion Information

<u>Subject Area</u>	<u>Required Credits</u>
English	4.00
Mathematics	3.00
Science	3.00
Social Studies	4.00
Health	0.25
Physical Education (9-12)	1.50
Arts/Humanities	2.00
FCS	0.25
Electives	4.50
Math/Science/Computer/Technology	1.00
Total	23.50

To be eligible for graduation a student in full residency shall satisfactorily complete the minimum program described above,

AND:

- Demonstrate proficiency on the required **Keystone Exams**

Descriptions of these graduation requirements follow.

Family and Consumer Science

The following courses will count toward the FCS graduation requirement:

- Consumer Decisions,
- FACS,
- S.T.E.P.S.,
- Today's Foods,
- Focus on Foods,
- Child Development or
- Singles Survival

A student can take any one of these courses to fulfill the requirement for graduation.

Math/Science/Computer/Technology Requirement

Math/Science courses are described later in this guide. The courses listed below will help satisfy the Computer/Technology credit:

Photography	Introduction to Computer Science	AP Computer Science A
Graphic Design	Advanced Java Concepts	Robotics Electronics
Adv. Graphic Design	AP Computer Science Principles	Video Yearbook & Broadcast Production
Screen Printing & Design	Intro. to Broadcasting	“Lights, Camera, Action” - Writing and Producing Film
Automated Accounting	News Broadcasting and Promotional Communications	Materials Engineering and Fabrication
	Digital Audio Engineering	Principles of Computer Aided Drafting

Arts/Humanities Requirement

The departments and/or courses listed below will help satisfy the Arts/Humanities credits:

Departments

Courses

Art Department	English Dept. Electives
Family & Consumer Science Dept.	Social Studies Electives
World Language Dept.	Gifted Seminar Program
Music Dept.	English as a Second Language
Technology Ed. Dept.	

Keystone Exams

We will continue to keep you updated on these exams as the information from the State evolves. The **graduating class of 2020 and after** are required to demonstrate proficiency in:

- 1 English course (follows 10th grade English) (Literature)
- 1 math course (Algebra I)
- 1 science course (Biology)

Currently, each student in the 2020 class and younger must demonstrate proficiency in each of the three subject

tests for a diploma to be awarded. If a student falls short of *Proficient*, a supplemental remedial class will be **mandated** and the student retested. Students need to pass each of two modules to be proficient. **Students will be retested in each window until the end of their 11th grade year to optimize their opportunity for success.**

NOTE: The State will be “banking” or storing the scores of any student who takes the Algebra I Keystone in the spring of their 7th or 8th grade year as well as those taking the Biology and Literature in 9th and 10th grade for use in compiling the School Performance Profile (SPP) when the cohort class reaches their 11th grade year. These achievement scores currently count for 50% of the school’s SPP.

Credits for Promotion

A minimum number of credits need to be accumulated each year to be promoted:

From Grade 9 to Grade 10 = 5.5 credits

From Grade 10 to Grade 11 = 11.5 credits

From Grade 11 to Grade 12 = 16.5 credits

NCAA Academic Eligibility

Only those classes approved by the NCAA Clearinghouse to be “core courses” qualify a student for participation in Division I or Division II athletics. Methacton’s list of approved core courses is available in the school counseling department office or online at <https://web1.ncaa.org/eligibilitycenter/common> .

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PROGRAM OF STUDIES

* indicates that this course fulfills a grade level requirement or graduation requirement for that subject area.

Art Department

Course Number	Name	Grade	Periods /Yr	Sem	Credits	Requirements
0900	Studio Art I	9-12	6	Yr	1.0	
0901	Studio Art II	10-12	6	Yr	1.0	Art I, 70% or better
0902	Studio Art III	11-12	6	Yr	1.0	Art II, 70% or better
0903	Adv. Drawing & Design	11-12	6	Sem	.5	Art I, Art II, Art III
0904	Adv. Painting and Color	11-12	6	Sem	.5	Art I, Art II, and Art III
0720	Photography	9-12	6	Sem	.5	
0721	Graphic Design	9-12	6	Sem	.5	
0722	Adv. Graphic Design	10-12	6	Sem	.5	Computer Art I, Graphic Design, 80% or better
0723	Screen Printing & Design	9-12	6	Sem	.5	
0921	Ceramic Art I	9-12	6	Sem	.5	
0922	Ceramic Art II	10-12	6	Sem	.5	Ceramic Art I or Wheel-Thrown Ceramics, 80% or better
0923	Ceramic Art III	10-12	6	Sem	.5	Ceramic Art II, 80% or better
0925	Wheel-Thrown Ceramics	9-12	6	Sem	.5	

1973	AP Studio Art	12	6	Yr	1.0	Dept. Approval
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Business and Computer Education Department

Course Number	Name	Grade	Periods	Sem/Yr	Credits	Requirements
0601	Introduction to Business	9-12	6	Sem	.5	
0602	Personal Finance	9-12	6	Sem	.5	
0603	Business Law	9-12	3/6	Yr/Sem	.5	
0605	Entrepreneurship	10-12	6	Sem	.5	
0609	Marketing	10-12	6	Sem	.5	
0625	Spreadsheets	9-12	3	Sem	.25	
0630	Automated Accounting I	9-12	3/6	Yr/Sem	.5	

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Driver Education Department

Course Number	Name	Grade	Periods	Sem/Yr	Credits	Requirements
0030	Classroom	9-12	3	Sem 1	.25	Age 16 prior to Feb. 14th
0032	Classroom	9-12	3	Sem 2	.25	

English Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0091	Academic English 9 Survey	9	6	Yr	1.0	General English Requirements
*0092	English 9 Honors	9	6	Yr	1.0	90% average in grade 8 Academic English or 85% average in grade 8 Honors English
*0101	English 10 World Literature	10	6	Yr	1.0	General English Requirements
*0102	Academic English 11	11	6	Yr	1.0	General English Requirements
*0103	Academic English 12	12	6	Yr	1.0	General English Requirements
*0107	English 10 Honors	10	6	Yr.	1.0	General English Requirements
*0108	English 11 Honors	11	6	Yr	1.0	General English Requirements
*0109	English 12 Honors	12	6	Yr	1.0	General English Requirements
0118	Sports in Literature	9-12	6	Sem	0.5	
0121	Introduction to Film	9-12	6	Sem	0.5	
0124	Mythology and J.R.R. Tolkien	9-12	6	Sem	0.5	
0128/.5	Creative Writing	9-12	6	Sem	0.5	80% in previous English course
0135	Acting and Theatre	9-12	6	Sem	0.5	

0138	Public Speaking	9-12	6	Sem	0.5	
*1985	AP Capstone Seminar	10	6	Yr	1.0	
1986	AP Capstone Seminar Research	11-12	6	Yr	1.0	
*1974	AP English Lit. & Comp.	11	6	Yr	1.0	General English Requirements
*1975	AP English Lang. and Comp.	12	6	Yr	1.0	General English Requirements
DE ENG	Literary Visions in Cinema	11-12	6	Sem	0.5	Prerequisite course: Intro to Film

* indicates that this course fulfills a grade level graduation requirement for the mandated four years of English.

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Family and Consumer Sciences

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0800	Focus on Foods	10-12	6	Sem	0.5	Satisfies Grad. Requirement
0801	International/American Cuisine	10-12	6	Sem	0.5	Focus on Foods or Today's Foods
*0802	FACS of Life	10-12	3	Sem	0.25	Satisfies Grad. Requirement
*0803	Today's Foods	9-12	6	Sem	0.5	Satisfies Grad. Requirement
*0805	S.T.E.P.S.	9-10	3	Sem	0.25	Satisfies Grad. Requirement
*0835	Singles Survival	11-12	3	Sem	0.25	Satisfies Grad. Requirement
*0840	Child Development	11-12	6	Sem	0.5	Satisfies Grad. Requirement
*0860	Consumer Decisions	9-10	3	Sem	0.25	Satisfies Grad. Requirement

* indicates that this course fulfills the .25 credits graduation requirement for the FCS subject area.

Health and Physical Education Department

Course Number	Name	Grade	Periods	Sem/Yr	Credits	Requirements
0005	Physical Ed. Grades 9 & 10	9-10	3	YR	0.5	
0007	Make-up Physical Education	9-10	3	Sem 1	0.25	
0008	Make-up Physical Education	9-10	3	Sem 2	0.25	
0011	Health	10	3	Sem	0.25	
0013	Standard First Aid (with CPR and AED)	9-12	3	Sem	0.25	
0017	Physical Ed Grade 11	11-12	3	YR	0.5	Required for 11 th grade
0020	Adapted Physical Education	9-12	3	Sem 1	0.25	Department Approval
0022	Adapted Physical Education	9-12	3	Sem 2	0.25	Department Approval

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Mathematics Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
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*0409	Contemporary Calculus	11-12	6	Yr	1.0	Pre-Calculus (> 80% preferred)
*0415	Academic Math	12	6	Yr	1.0	Algebra I; Geom.
*0419	Algebra I	9	6	Yr	1.0	
*0420	Algebra II	10-12	6	Yr	1.0	Alg. I & Fund. of Geo./Geom.
*0421	Algebra II/Trig.	9-12	6	Yr	1.0	80% in Alg. I & Geometry
*0422	Algebra III/Trig.	11-12	6	Yr	1.0	80% in Alg. II or less than 80% in Alg. II / Trig.
*0426	Algebra II/Trig. Honors	9-10	6	Yr	1.0	83% in Hon. Alg. I, and Hon Geo. *Appropriate placement test score * *No acceleration*
*0427	Trigonometry	12	6	Sem	0.5	Teacher Rec
*0429	Fundamentals of Geometry	9-12	6	Yr	1.0	less than 80% in Alg. I,
*0430	Geometry	9-12	6	Yr	1.0	Placement Test if less than 80% in Algebra I
*0432	Geometry Honors	9	6	Yr	1.0	83% in Hon. Alg. I, *Appropriate placement test score *
0438	Math Foundations	9-11	3	Yr	0.5	Required based on standardized testing results
*0441	Pre-Calculus	11-12	6	Yr	1.0	80% Alg. II/Trig or Alg. III/Trig
*0442	Pre-Calculus Honors	10-11	6	Yr	1.0	83% Hon Alg. II/Trig. * Appropriate placement test – NO Acceleration *
*0453	Probability	11-12	6	Sem	0.5	Algebra II
0455	Introduction to Computer Science	9-12	6	Sem	0.5	80% Alg. I
0456	Advanced Java Concepts	11-12	3	Yr	0.5	75% in AP Computer Science A
0460	Robotics Electronics	9-12	6	Sem	.5	80% or above in Algebra
*1978	AP Calculus AB	11-12	6	Yr	1.0	83% in Pre-Calculus Hon. 95% Pre-Calculus,
*1983	AP Calculus BC	11-12	6	Yr	1.0	Calculus AB
*1993	AP Statistics	11-12	6	Yr	1.0	85% in Alg. II/Trig. (if just taken) or 85% in Pre-Calculus
1997	AP Computer Science Principles	10-12	6	Yr	1.0	85% or better in Algebra 1 and Geometry AND an 80% in English
1998	AP Computer Science A	10-12	6	Yr	1.0	a) 85% in Introduction to Computer Science OR b) Honors/AP Math in rising 11 th or 12 th grade OR c) 80% in AP Computer Science Principles

* indicates that this course counts toward the graduation requirement of three mandated Mathematics credits.

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Music Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0932	Concert Band	9-12	3	Yr	0.5	Teacher Approval
0934	Concert Band	9-12	6	Yr	1.0	Teacher Approval
0940	String Ensemble	9-12	6	Yr	1.0	Strings only
0942	String Orchestra	9-12	3	Yr	0.5	Strings only
0951	Concert Choir (Chorus)	9-12	3	Yr	0.5	
0953	Concert Choir (Chorus)	9-12	6	Yr	1.0	
0956	Chorale (Advanced Chorus)	9-12	3	Yr	0.5	Audition
0958	Chorale (Advanced Chorus)	9-12	6	Yr	1.0	Audition
0960	Guitar	9-12	3	Sem	0.25	
0968	Music Theory & Comp.	9-12	3	Yr	0.5	
0967	Digital Audio Engineering	10-12	3	Yr	0.5	
1991	AP Music Theory	10-12	6	Yr	1.0	Teacher Approval

Science Department

****Because there are typically two requirements for each science course (a math requirement and science requirement) these are listed in a separate chart below.**

Course Number	Name	Grade	Periods	Sem/ Yr	Credits
*0505	Environmental 9 Science	9	6	Yr	1.0
*0506	Environmental 9 Science Honors	9	6	Yr	1.0
0507	Environmental 9 Sci. Accelerated Study	9	2	Sem	0.2
*0511	Academic Biology	10	6	Yr	1.0
*0510	Biology Honors	9-10	6	Yr	1.0
*0513	Human Anat. & Phys.	11-12	6	Yr	1.0
*0514	Chem. Comm.	11-12	6	Yr	1.0
*0530	Academic Chemistry	10-12	7	Yr	1.2
DE CHEM 121	General Chemistry I	10-12	7	Yr	1.2
*0535	Chemistry Honors	10-11	7	Yr	1.2
*0545	Oceanography & Marine Bio	11-12	6	Yr	1.0

*0549	Conceptual Physics	11-12	6	Yr	1.0
*0550	Academic Physics	11-12	7	Yr	1.2
*0551	Physics Honors	11-12	7	Yr	1.2
*1979	AP Environmental	11-12	8	Yr	1.3
*1980	AP Chemistry	11-12	8	Yr	1.3
*1981	AP Biology	11-12	8	Yr	1.3
*1982	AP Physics (Calculus)	12	8	Yr	1.3

* indicates that this course counts toward the graduation requirement of three mandated Science credits.

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Science Course Selection Requirement Summary Sheet

Course	Science Requirement	Math Requirement
Academic Biology	Pass previous science course	
Hon. Biology (9th Gr.)	93% Hon 8th Gr. Science (or 95% Acad. 8th Gr. Science)	
Hon. Biology (10 th Gr.)	90% Hon. Env. 9 Science (or 95% Acad. Env. 9 Science)	
Chem. Com	Passed Biology	
Academic Chemistry	70% Academic Biology	70% Algebra 1
Dual Enrollment Chem.	82% Academic Biology (72% Honors)	82% Alg. I (72% Hon.) 82% Geometry (72% Hon.)
Hon. Chemistry	80% Hon. Biology (90% Academic Bio)	80% Hon Alg.1 (90% Academic) 80% Hon. Geom. (90% Academic)
Conceptual Physics	Passed Chemistry	
Academic Physics	Passed Chemistry	70% in Alg. II /Trig (80% Alg. II)
Hon. Physics	80% Honors Chem. or 87% Dual Enrollment Chem. or 90% Academic Chem.	Any ONE of the following: 70% Hon. Alg. II/Trig (80% Academic) 70% Hon. Pre-Calc. (80% Academic) 80% Alg. III/Trig or 90% Alg. II
Environmental	Passed Biology	
Honors Environmental	85% 8th Gr. Honors Science (or 90% or above 8th Gr. Academic Science)	
Oceanography	Passed Env.9 Sci. and Biology	
Anatomy & Physiology	80% Hon. Bio. (85% Academic Bio.) 75% Hon. Chem. (80% Academic/DE)	
AP Biology	85% in Hon. Bio (95% Academic Bio)	

	80% in Hon. Chem. (85% Academic/83% DE)	
AP Chemistry	87% Hon. Chem. (97% Academic /94% DE) 82% Hon. Biology	85% Hon. Alg. II/Trig (95% Academic)
AP Environmental	80% Hon. Bio. (85% Academic)	70% Algebra
	75% Hon. Chem. (80% Academic/DE)	
AP Physics	87% in physics	Calculus (concurrent or completed)

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Social Studies Department

For all courses, see General Social Studies Requirements on page 58.

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0201	European Studies	9	6	Yr	1.0	General Soc. St. Requirement
*0202	European Studies 9 Honors	9	6	Yr	1.0	General Soc. St. Requirement
*0204	World Cultures	10	6	Yr	1.0	General Soc. St. Requirement
*0205	World Cultures 10 Honors	10	6	Yr	1.0	General Soc. St. Requirement
*0211	U.S. & PA Cultures	11	6	Yr	1.0	General Soc. St. Requirement
*0212	U.S. & PA Cultures Honors	11	6	Yr	1.0	General Soc. St. Requirement
0240	Psychology	10-12	6	Yr	0.5	
0241	Forensic Psychology	12	6	Sem	0.5	70% in AP Psychology
*0251	U.S. Gov. & Economics	12	6	Yr	1.0	General Soc. St. Requirement
*0252	U.S. Gov. & Econ. Honors	12	6	Yr	1.0	General Soc. St. Requirement
0263	Sociology	10-12	6	Sem	0.5	
0264	Criminal Justice	10-12	6	Yr	0.5	
*+1969	AP European History	9	6	Yr	1.0	See course description
*+1970	AP U.S. Govern. + Politics	12	6	Yr	1.0	General Soc. St. Requirement
*+1971	AP Human Geography	10-12	6	Yr	1.0	See course description
+1976	AP Psychology	11-12	6	Yr	1.0	See course description
*+1977	AP United States History	11	6	Yr	1.0	General Soc. St.

						Requirement
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* indicates this course fulfills the grade level graduation requirement for the mandated 4 years of Social Studies.

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Technology Education Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0710	Introduction to Engineering	9-12	3/6	Yr/Sem	0.5	
0743	Materials Engineering & Fabrication	9-12	6	Yr	1.0	
0750	Advanced Materials Engineering	10-12	6	Sem	0.5	Materials Engineering & Fabrication
0761	Principles of Computer Aided Drafting (CAD)	9-12	6	Yr	1.0	
0762	Architectural Engineering & Drafting	10-12	6	Sem	0.5	Principles of CAD or Intro to Engineering
0769	Mechanical Engineering & Drafting	10-12	6	Sem	0.5	Principles of CAD or Intro to Engineering
2300	Intro to Broadcasting	9-12	6	Sem	0.5	
2301	News Broadcasting & Promotional Communications	10-12	6	Sem	0.5	Intro. to Broadcasting
2302	Video Yearbook & Broadcast Production	10-12	6	Sem	0.5	Intro. to Broadcasting
2303	“Lights, Camera, Action” – Writing and Producing Film	10-12	6	Sem	0.5	Intro. to Broadcasting

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World Language Department

The 70% average requirement below is a minimum for each marking period and the final course average.

Honors Requirements - 92% average in Assessments required the previous year to enter the Honors Program for the first time. An 85% average is required to remain in the Honors Program. An 85% is required in Level 4 Honors Language to take the AP Language course.

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0300	German 1	9-12	6	Yr	1.0	
0301	German 2	9-12	6	Yr	1.0	German 1, 70% average
0306	German 2 Honors	9-12	6	Yr	1.0	Honors Requirements above

0302	German 3	10-12	6	Yr	1.0	German 2, 70% average
0307	German 3 Honors	10-12	6	Yr	1.0	Honors Requirements above
0303	German 4	11-12	6	Yr	1.0	German 3, 70% average
0308	German 4 Honors	11-12	6	Yr	1.0	Honors Requirements above
0309	German 5 Honors	12	6	Yr	1.0	Honors Requirements above
0310	French 1	9-12	6	Yr	1.0	
0311	French 2	9-12	6	Yr	1.0	French 1, 70% average
0312	French 2 Honors	9-12	6	Yr	1.0	Honors Requirements above
0313	French 3	10-12	6	Yr	1.0	French 2, 70% average
0316	French 3 Honors	10-12	6	Yr	1.0	Honors Requirements above
0314	French 4	11-12	6	Yr	1.0	French 3, 70% average
0317	French 4 Honors	11-12	6	Yr	1.0	Honors Requirements above
0315	French 5	12	6	Yr	1.0	French 4, 70% average
0330	Spanish 1	9-12	6	Yr	1.0	
0331	Spanish 2	9-12	6	Yr	1.0	Spanish 1, 70% average
0332	Spanish 2 Honors	9-12	6	Yr	1.0	Honors Requirements above
0333	Spanish 3	10-12	6	Yr	1.0	Spanish 2, 70% average
0339	Spanish 3 Honors	10-12	6	Yr	1.0	Honors Requirements above
0334	Spanish 4	11-12	6	Yr	1.0	Spanish 3, 70% average
0340	Spanish 4 Honors	11-12	6	Yr	1.0	Honors Requirements above
0335	Spanish 5	12	6	Yr	1.0	Spanish 4, 70% average
+1994	AP Spanish	12	6	Yr	1.0	Honors Requirements above
+1995	AP French	12	6	Yr	1.0	Honors Requirements above

North Montco Technical Career Center

* indicates that this course fulfills a graduation requirement for Health/PE or Social Studies.

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0995	NMTCC AM	9 -10	18	Yr	2.25	
0997	NMTCC PM	11-12	18	Yr	2.25 or 3	
*1021	NMTCC Health and PE	9-11	-	Yr	0.75	
*1062	NMTCC Tech and Global Stud 11	11	-	Yr	1.0	
*1063	NMTCC Tech and Global Stud 12	12	-	Yr	1.0	

Special Programs

Course Number	Course Title	Grade	Periods	Sem/ Yr	Credits	Requirements
0185	Yearbook	10-12	6	Yr	1.0	
1070	Pre-Career Activity Sem. 1	11-12	-	Sem	0.5	

1071	Mentorship Program	10-11			P/F	.25 credit/20 hours
1072	Pre-Career Activity Sem. 2	11-12	-	Sem	0.5	

Dual Enrollment Courses Open to sophomores, juniors, and seniors.
These elective classes are weighted by a factor of 1.1.

Course Number	Course Title	College Credits Earned	MHS credits earned
DE CHEM 121	General Chemistry	4 College credits	1.2
DE CHI 101	Elementary Chinese	3 College credits	0.5
DE MGT 111	Principles of Management	3 College credits	0.5
DE MKT 111	Principles of Marketing	3 College credits	0.5
DE EDU 100	Introduction to Education	3 College credits	0.5
DE ENG 238	Literary Vision of Film	3 College credits	0.5
DE PSY 210	Educational Psychology	3 College credits	0.5
DE ITA 101	Elementary Italian	3 College credits	0.5
DE NMTCC	Biotechnology with NMTCC	6 College credits	NMTCC credit

Special Programs – Gifted Learners

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
5013	Gifted Seminar 1	9	3	Yr	0.5	
5014	Gifted Seminar 2A	10	3	Yr	0.5	Summer Reading Assignment
5015	Gifted Seminar 2B	11	3	Yr	0.5	
5016	Gifted Seminar 3	12	HR	Yr	0.5	

Advanced Placement Courses

Open to juniors and seniors. In the 2019-2020 school year, registration for the Advanced Placement Exams will occur in the Fall. This is a change implemented by College Board and is new from past years. As always, payment for the exams will be taken prior to the exam order being placed and will occur in October of 2019. The + indicates that this course carries a weight of 1.2

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
1969	AP European History	9	6	Yr	1.0	See course description
1970	AP U.S. Government	12	6	Yr	1.0	See course description
1971	AP Human Geography	10-12	6	Yr	1.0	See course description
1973	AP Studio Art	12	6	Yr	1.0	See course description
1974	AP English 11	11	6	Yr	1.0	See course description
1975	AP English 12	12	6	Yr	1.0	See course description
1976	AP Psychology	11-12	6	Yr	1.0	See course description
1977	AP United States History	11	6	Yr	1.0	See course description
1978	AP Calculus AB	11-12	6	Yr	1.0	See course description

1979	AP Environmental	11-12	8	Yr	1.3	See course description
1980	AP Chemistry	11-12	8	Yr	1.3	See course description
1981	AP Biology	11-12	8	Yr	1.3	See course description
1982	AP Physics (Calculus)	12	8	Yr	1.3	See course description
1983	AP Calculus BC	11-12	6	Yr	1.0	See course description
1985	AP Capstone Seminar	10-12	6	Yr	1.0	See course description
1986	AP Capstone Research	11-12	6	Yr	1.0	See course description
1991	AP Music Theory/Comp.	10-12	6	Yr	1.0	See course description
1993	AP Statistics	11-12	6	Yr	1.0	See course description
1994	AP Spanish	12	6	Yr	1.0	See course description
1995	AP French	12	6	Yr	1.0	See course description
1997	AP Computer Science Principles	10-12	6	Yr	1.0	See course description
1998	AP Computer Science A	10-12	6	Yr	1.0	See course description

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COURSE DESCRIPTIONS

The following pages of the "Program Planning Guide" contain brief descriptions of each high school course listed in the above table. As you read the descriptions and begin to make choices, please keep the following in mind: Courses marked "1 credit" are full year courses. Courses marked ".5 credits" are 1 semester (1/2 year) courses. Any exceptions will be noted on the course description.

The availability of elective courses is dependent upon student enrollment and cannot be guaranteed. A course may not run (be scheduled) if the number of students enrolling is too low, or if qualified staff is not available.

THE COURSES IN THE FOLLOWING SECTION ARE LISTED BY DEPARTMENT AND NOT BY DIFFICULTY. STUDENTS SHOULD BE SURE TO SELECT COURSES FOR THE APPROPRIATE GRADE AND APPROPRIATE LEVEL. DISCUSSIONS WITH TEACHERS AND SCHOOL COUNSELORS CAN HELP STUDENTS CHOOSE THE MOST BENEFICIAL COURSES.

Visual Arts

Some courses may be "cascaded." See information regarding cascading on page 7.

0900 STUDIO ART I

Offered in grades 9-12 1.0 credit *Students will be required to supply some basic materials.*

Class meets 6 periods per cycle, all year 1.0 credit

Students will explore the basic elements of art with emphasis on drawing, color, and experimentation in art materials. This is the first course for what may be a continuous art major.

0901 STUDIO ART II

Offered in grades 10-12 1.0 credit *Students will be required to supply some basic materials.*

Class meets 6 periods per cycle, all year

Requirement: Art I, 70% average or better

For the student who has completed Art I: an intermediate studio lab in drawing, painting, and design techniques.

This course will stress student experimentation in many 2 dimensional areas.

0902 STUDIO ART III

Offered in grades 11, 12 1.0 credit ***Students will be required to supply some basic material.***

Class meets 6 periods per cycle, all year

Prerequisite: Art I, II

Requirement: Art II, 70% average or better.

This advanced studio course focuses on drawing, including figure drawing, perspective, self-portraiture, and observational drawing. Student assignments will become an integral part of their art portfolio. Art III is a requirement for any student wishing to take AP Studio Art.

0903 ADVANCED DRAWING AND DESIGN

Offered in grades 11, 12 0.5 credits ***Students will be required to supply some basic materials.***

meets 6 periods per cycle, 1 semester

Requirement: Successful completion of Art I, Art II, Art III.

This course is for the advanced art student to explore basic design concepts as they relate to varied approaches of drawing and two-dimensional design. A variety of media and techniques will be covered. Diverse subject matter will be dealt with.

0904 ADVANCED PAINTING AND COLOR

Offered in grades 11, 12 0.5 credits ***Students will be required to supply some basic materials.***

Class meets 6 periods per cycle, 1 semester

Requirement: Successful completion of Art I, Art II, Art III.

This course is for the advanced art student and will explore color and design concepts as related to painting. Media will be primarily acrylic paint, but oil and watercolor painting techniques will be explored.

0720 PHOTOGRAPHY

Offered in grades 9-12 0.5 credits

Class meets 6 periods per cycle, 1 semester

Recommended: Digital Camera with at least 16 megapixels

This is an introductory course for students who have an interest in learning photography as an art form.

Students will be provided a working knowledge of a camera, the computer, Adobe Photoshop, processes and techniques to produce digital works of art and the history of Photography. Creative interpretation is developed through the use of additional hardware such as the digital camera, scanners and various printing techniques.

Coursework will include but not limited to assignments and exercises emphasizing the use of software tools, composition, color, digital imagery, web design and the use of digital imaging for expressive purposes. It is highly recommended for students to provide their own 8 gb memory card.

*This class counts as a Math/Science/Computer/Technology Requirement.

0721 GRAPHIC DESIGN

Offered in grades 9-12 0.5 Credits

Class meets 6 periods per cycle, 1 semester

This course is designed to cover the basic fundamentals of computer graphics' technology with an introduction to Adobe Illustrator, advertising, desktop publishing, illustration and graphic design. An emphasis will be

placed on understanding proper layout and design principles. Scanning, printing, digital photography, image manipulation, video editing, web design and a variety of software applications will be covered.

*This class counts as a Math/Science/Computer/Technology Requirement.

0722 ADVANCED GRAPHIC DESIGN

Offered in grades 10-12 0.5 Credits

Class meets 6 periods per cycle, 1 semester

Prerequisite: 80% or better in Graphic Design or Computer Art 1

This course will provide practical experience to students who are considering computer graphics as a career. Students will develop an individual graphic design style using a variety of software for advertising, marketing, web design, illustration and graphic design. A strong emphasis will be placed on mastering proper layout and design principles.

*This class counts as a Math/Science/Computer/Technology Requirement.

0723 SCREEN PRINTING & DESIGN

Offered in grades 9-12 0.5 credits

Class meets 3 periods per cycle, 1 semester

Prerequisite: No Prerequisite

Screen Printing provides students with the skills necessary for an entry level position in the screen printing industry. Each student has a hands-on experience in all aspects of creating original designs and the screen printing process. Utilizing hand methods for design preparation, as well as the computer, students print flat work such as stickers, fabric, and T-shirts. Proper clean-up and screen reclamation are also taught. It is highly recommended to take Graphic Design first.

*This class counts as a Math/Science/Computer/Technology Requirement.

0921 CERAMIC ART I

Offered in grades 9-12 .5 credits

There will be a lab fee of \$15 for materials.

Class meets 6 periods per cycle, 1 semester

This course will explore hand building methods such as pinch, coiling, slab construction, and sculpture as well as methods of decoration. Students will also learn firing and glazing procedures.

0922 CERAMICS ART II

Offered in grades 10-12 .5 credits

There will be a lab fee of \$15 for materials.

Class meets 6 periods per cycle, 1 semester

Requirement: Ceramic Art I or Wheel-Thrown Ceramics, 80% average or better

This course is for the advanced ceramic student who has successfully completed Ceramics 1 or Wheel-Thrown Ceramics. Emphasis will be placed on mastery of the potter's wheel, production of functional pottery, ceramics sculpture, and study of professional ceramic artist's work.

0923 CERAMIC ART III

There will be a lab fee of \$15 for materials.

Offered in grades 10-12 .5 credits Class meets 6 periods per cycle, 1 semester Requirement: Ceramic Art II, 80% average or better

This course is for the highly motivated art student who is interested in developing his/her skills in ceramic art using 3-dimensional principles of art. Students will be responsible for their own firing and will learn how to operate the kiln. Students taking this class will acquire the necessary skills to enroll in the AP art course 3-

dimensional portfolio. Advanced throwing skills and additive/subtractive sculpture skills will be taught, as well as an emphasis on the exploration of mixed media outside of clay and glaze. Written proposals for all projects will be required as well as sketches that indicate visual planning. Evaluation for this course will be in alignment with some of the AP standards.

0925 WHEEL-THROWN CERAMICS

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: No Prerequisite

The potter's wheel is one of the oldest, most efficient ways of making functional ceramics, but can also be one of the most challenging to master. This course is designed to allow students access to regular practice on the potter's wheel, giving them the opportunity to work toward mastery. Students taking this course will learn a variety of techniques to improve their skill on the wheel. Basic knowledge of the clay process and firing cycle are required, therefore, successful completion of Ceramic Art 1 serves as a prerequisite. The equipment provided can accommodate 16 students per section of this course.

+1973 ADVANCED PLACEMENT STUDIO ART Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 80% in Art III or be taking Art III concurrently; Art Department chairperson approval needed.

Students are strongly advised to take Advanced Drawing and Design and Advanced Painting and color in conjunction with this Advanced Placement course.

The Advanced Placement in Studio Art is intended for highly motivated students committed to serious study in art. This course involves significantly more time than most high school art courses. In this course, students will select their own areas of concentration.

Students are to select one of the following portfolios to complete for AP credit: Drawing Portfolio

This portfolio is designed to address a very broad interpretation of drawing issues and media. Light and shade, line quality, rendering of form, composition, surface manipulation, and illusion of depth are drawing issues that can be addressed through a variety of means. Many works of painting, printmaking, and mixed media, as well as abstract, observational, and inventive works, may qualify.

2-D Design

This portfolio is intended to address a very broad interpretation of two-dimensional design issues. For this portfolio, students are asked to demonstrate proficiency in two-dimensional design using a variety of art forms. These include, but are not limited to, graphic design, typography, digital imaging, photography, collage, fabric design, weaving, illustration, painting, and printmaking. A variety of approaches to representation, abstraction, and expression may be a part of the student's portfolio.

3-D Design

This portfolio is intended to address a broad interpretation of sculptural issues in depth and space. These may include mass, volume, form, plane, light, and texture. A variety of approaches to representation, abstraction, and expression may be a part of the student's portfolio. These might include traditional sculpture, architectural models, apparel, ceramics, three-dimensional fiber arts, or metalwork.

A listing of the specific components of each portfolio may be obtained from Department Chair.

Business and Computer Education

Collectively the business department has modified the curriculum to provide students with an opportunity to

learn lifelong skills. The goal is to expand educational options, provide for college prep and job prep, offer a job-prep path to success, challenge students academically, broaden work and study options, and help students acquire lifelong skills and habits that will apply to any career. Whether you enter the workforce during high school, immediately after graduation, or following the completion of college, the knowledge and skills gathered in this department can transfer into skills and background to help you on your way to success.

Applied Business offered in grades	9	10	11	12
0601 Introduction to Business	X	X	X	X
0602 Personal Finance	X	X	X	X
0603 Business Law	X	X	X	X
0605 Entrepreneurship		X	X	X
0609 Marketing		X	X	X
Accounting offered in grades	9	10	11	12
0630 Automated Accounting I	X	X	X	X
Computers offered in grades	9	10	11	12
0625 Spreadsheets	X	X	X	X

Applied Business

0601 INTRODUCTION TO BUSINESS

Offered in grades 9-12 .5 credits
 Class meets 6 periods per cycle, 1 semester
 Requirement: None

This course will introduce students to the world of business. This semester class will explore concepts such as needs and wants, supply and demand, types of industry and economies, technology and computers in business, as well as the student's role as a consumer and how they have influence on our economy. The goal of the course is to give students a basic knowledge and vocabulary of how business in our country works to prepare them for a future career or simply to equip them with the skills and basic knowledge to make reasonable consumer and business decisions in the future.

0602 PERSONAL FINANCE

Offered in grades 9-12 .5 credits
 Class meets 6 periods per cycle, 1 semester

Credit, insurance, investments, budgeting and money management are the main topics covered in this course. The students will learn the much needed strategies and terminology that will allow them to make better financial decisions in their future. Specific activities include researching interest rates, balancing a checkbook, creating an investment plan that includes a stock portfolio and creating a monthly budget. Interviewing and employment skills are also addressed.

0603 BUSINESS LAW

Offered in grades 9-12 .5 credits
 Class meets 6 periods per cycle, 1 semester or 3 periods per cycle, 1 year

Business Law involves study in very basic, everyday matters that everyone should understand to function well in our society. This course will cover important topics such as Our Laws, Ethics, The Court System, Criminal

Law, Personal Injury Law, Contracts, Consumer Protection, and Real/Renting Property. These are real-world survival skills.

0605 ENTREPRENEURSHIP

Offered in grades 10-12 .5 credits

Class meets 6 periods per cycle, 1 semester or 3 periods per cycle, 1 year

The need to achieve, to control one's own ideas and to use your ability to be creative are just some of the reasons a person might start his/her own business. Entrepreneurs are an integral part of our economy. Many of our students may be in a position to start their own business or take over a family business. This course will go over the characteristics of successful entrepreneurs as well as the skills and knowledge needed to succeed. Key topics will be planning and organizing the business, marketing, (product, location, price, advertising, etc...) and financial management for a small business. Students will choose a business to start and create a business plan to organize their new venture. The course also includes a restaurant simulation that will allow them to make decisions of a business owner in all aspects of the business.

0609 MARKETING

Offered in grades 10-12 .5 credits

Class meets 6 periods per cycle, 1 semester or 3 mods per cycle, 1 year

This project-based business course is designed to acquaint the student with the role of marketing in our economy mainly through the areas of products such as: food and beverage, and services such as: sports, entertainment, fashion, and more. This course will cover the following: marketing today and tomorrow, marketing basics, consumer behavior, competition, the 4 P's (product/service, place/distribution, price, and promotion), marketing information and research, developing a marketing strategy and marketing plan, and planning your future in marketing.

Computers

0625 SPREADSHEETS

Offered in grades 9-12 .25 credits

Class meets 3 periods per cycle, 1 semester

This course will familiarize the student with the features of Microsoft Excel. This course will develop competencies and proficiency in fundamental computer skills. Students will learn to use a computer as a personal and business tool. Using Basic and Advanced techniques, students will create and manipulate data, format and analyze data and content, create and modify formulas, present data visually, and collaborate on and secure data using Microsoft Excel.

Accounting

0630 AUTOMATED ACCOUNTING I

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester or 3 periods per cycle, 1 year

Emphasis will be placed on learning the accounting cycle and analyzing transactions for a service business organized as a sole proprietorship. Students will focus on financial accounting principles and apply their skills to real life automated accounting simulations. Students will be better prepared to make economic decisions. An excellent course for any student considering Business or Accounting as a career.

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Driver Education

DRIVER EDUCATION

0030 Classroom sem. 1 (age 16 prior to Feb. 14 of school year)

0032 classroom sem. 2 (age 16 after Feb. 14 of school year) Offered in grades 9*-12 .25 credits

Class meets 3 periods per cycle, 1 semester

Requirement: Highly recommended in grade 10, *available to older students in grade 9 that will apply for permits while in 9th grade.

Classroom Driving Education strives to provide an environment for the future driver that will enable the student to develop a wholesome attitude toward the driving task and others who use the highways. Areas of concentration in this course include a discussion of the accident problem, drunk driving, traffic laws, automobile insurance, driver attitudes, and information related to the operation of the car.

Driving Simulation/On-The-Road Training

Requirement: classroom course 0030 or 0032 is a prerequisite for on-the-road driving.

Students may elect to be in this program when they reach the age of sixteen through a direct application to Mr. Lenahan. Each student enrolled in this program receives a minimum of six hours in the driving simulator system and six hours of actual driving instruction. Emphasis is placed on the development of driving perception, positive driving attitudes, and the basic skills involved in operating the automobile. Successful completion of this program enables many students to benefit from insurance rate reductions and to receive a senior operator's license at age seventeen and one half rather than eighteen. At the completion of the program, students will be able to earn a PA driver's license. **Fee-approximately \$325.00.**

Driver Education

Driver Education Theory is available in grade 10. If the parent wishes to delay enrollment to a later year, the wishes of the parent will be honored. However, no guarantee can be made that the course can be scheduled at a later date or summer school.

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English

* indicates that this course fulfills a grade level graduation requirement for the mandated four years of English.

Required English Courses

Grade 9	Grade 10	Grade 11	Grade 12
English 9 Survey or English 9 Honors	English 10 World Literature or English 10 Honors, or AP Capstone Seminar	Academic English 11 or English 11 Honors or AP English 11	Academic English 12 or English 12 Honors or AP English 12

General English Requirements and Prerequisites

- From 10th through 12th grade, to advance English curricular levels (ex. Academic 11 to Honors 12), the student must have earned a minimum average of 90% in the previous English course.
- From 10th through 12th grade, to enroll in an English Honors level course, the student must have earned a minimum average of 70% in the previous English Honors level course or have passed the previous English AP level course.
- From 10th through 12th grade, to enroll in an English AP level course, the student must have earned a minimum average of 70% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors level course.

Required English Courses - Grade 9

*0091 ACADEMIC ENGLISH 9 SURVEY

Required in grade 9 1.0 credit

Class meets 6 periods per cycle, all year

The ninth grade English program is a full-year course that incorporates grammar, writing, and a variety of literary genres. Vocabulary development and the fundamentals of the research process in MLA format are also integral elements of the freshman course. **Students are required to complete mandatory summer reading(s) between 8th and 9th grade.**

*0092 ENGLISH 9 HONORS

Offered in grade 9 1.0 credit

Class meets 6 periods per cycle, all year

Scheduled in place of 0091

Requirement: 90% average in grade 8 Academic English or 85% average in grade 8 Honors English

Required Summer Reading: book(s) to be announced

In an enriched atmosphere, which places major emphasis on critical thinking, creativity, problem solving, collaborative learning, and process writing, the student will experience all aspects of the standard curriculum for ninth grade English. Those aspects include grammatical concepts, composition, mythology, drama, poetry, the short story, and the novel. Efforts will be made to link literary themes to the historical periods discussed in the ninth grade Social Studies courses. **Students are required to complete mandatory summer reading(s) between 8th and 9th grade.**

Required English Courses - Grade 10

*0101 ENGLISH 10 WORLD LITERATURE

Required in grade 10 1.0 credit

Class meets 6 periods per cycle, all year

In this full year course, students will read and explore world literature. In addition, students will read a novel. The course of study will be in conjunction with the scope and sequence of the curriculum covered in 10th grade World Cultures. Students will utilize the steps of the writing process to produce essays and oral presentations. Students will present three speeches as a part of the course requirements. Vocabulary will be literature-based. **Students are required to complete mandatory summer reading(s) between freshman and sophomore years.**

*0107 ENGLISH 10 HONORS

Offered in grade 10 1.0 credit

Class meets 6 periods per cycle, all year

Scheduled in place of 0101

General English Requirements and Prerequisites apply

This full-year course is designed for the college bound student who enjoys collaborative learning, group presentations, and demonstrates critical thinking skills. Students will read several novels from non-Western authors while also exploring literary selections from the early Greek and Roman cultures, as well as China, Japan, Africa, India and Asia. Aspects of the standards-based English curriculum include essay writing, speeches, the epic, the novel, poetry. Vocabulary is a separate, weekly component to better prepare students for their SATs. In addition, students will write and defend a persuasive research paper on a current controversial topic. **Students are required to complete 3 summer reading selections between their freshman and sophomore years. These novels will be discussed and tested upon returning to school.**

*1985 AP CAPSTONE SEMINAR

Offered in grade 10. This course fulfills the 10th grade English requirement

1.0 credit

Class meets 6 periods per cycle, all year

Scheduled in place of 0101

General English Requirements and Prerequisites apply; however, **prospective students should be self-motivated, have very strong reading and writing skills, and be willing to engage collaboratively and independently with the course instructor and fellow students. Students will also submit a writing sample from their current course for review and approval.**

AP Capstone Seminar is a year-long course that has students investigate real-world issues from multiple perspectives. Students learn to synthesize information from different sources, develop their own lines of reasoning in research-based written essays, and design and deliver oral and visual presentations, both individually and as part of a team. The course is designed to challenge students to think critically about complex issues and form their own opinion about them. Students are empowered to collect and analyze information with accuracy and precision in order to craft and communicate evidence-based arguments. AP Seminar is the first year of the two-year AP Capstone Program.

Required English Courses - Grade 11

Beginning in the eleventh grade, students will choose from a range of required courses based on interest and future plans. If not in Advanced Placement, all students must choose either Honors or Academic.

*0102 ACADEMIC ENGLISH 11

Class meets 6 periods per cycle, all year 1.0 credit

General English Requirements and Prerequisites apply

Academic English 11 is designed for those students seeking a standard college preparatory curriculum, with a focus on all aspects of Language Arts including, reading, writing, speaking, listening, and research and presentation skills. American Literature is emphasized. Included in this yearlong course will be an introduction and implementation of the basic skills necessary in organizing and developing thoughts and ideas in the written form. **Students are required to complete mandatory summer readings between their sophomore and junior years.**

*0108 ENGLISH 11 HONORS

Class meets 6 periods per cycle, all year 1.0 credit

General English Requirements and Prerequisites apply

English 11 Honors is designed for those students seeking a challenge and an increased level of academic engagement. Students must be prepared for a serious time commitment to writing, and reading and responding to literature in and out of the classroom. The bilateral curriculum incorporates both the classics of yesteryear and the multicultural literature that defines American Literature today. Students will select novels from several thematic units and participate in individual, small, and large group literary analysis, as well as on-going writing workshops. Students will also be required to read a variety of genre from various American literary periods, engage in research activities, present formal and informal speeches, produce multimedia projects, lead and participate in literature circles, and create different types of writing. **Students are required to complete summer reading(s) between their sophomore and junior years.**

Required English Courses - Grade 12

*0103 ACADEMIC ENGLISH 12

Class meets 6 periods per cycle, all year 1.0 credit

General English Requirements and Prerequisites apply

Academic English 12 is designed for those students seeking a standard college preparatory curriculum, with a focus on all aspects of Language Arts including, reading, writing, speaking, listening, and research and presentation skills. There is an emphasis on British Literature. Included in this yearlong course will be a continuation of the introduction and implementation of the basic skills necessary in organizing and developing thoughts and ideas in the written form. In addition, these senior year students will also be exposed to several more advanced forms of writing and a thematic overview of British Literature. **Students are required to complete mandatory summer reading(s) between their junior and senior years.**

*0109 ENGLISH 12 HONORS

Class meets 6 periods per cycle, all year 1.0 credit

General English Requirements and Prerequisites apply

English 12 Honors is designed for students with a strong academic background who have exhibited outstanding performance in all facets of language arts. Because of the increased rigor of the course curriculum, students should be highly motivated, well organized, and possess strong critical thinking skills. The course will be a study of English Literature from the Anglo-Saxon Period to the 20th century. Students will also increase their vocabularies, review grammar, and produce essays related to the literature. An average of 85% or better in previous English courses is strongly recommended. **Students are required to complete mandatory summer reading(s) between their junior and senior years.**

English Electives

Students are encouraged to schedule electives along with their required English courses for additional credit.

English electives are available to all students, grades 9 through 12. Check the course descriptions to be certain.

0118 SPORTS IN LITERATURE

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: None

This course is for the student who enjoys reading and discussing sports. Students will read a wide variety of print materials that reflect themes of heroism, tenacity, and hard work. This course will also include various styles of sports writing; i.e., non-fiction, drama and journalism.

0121 INTRODUCTION TO FILM

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: None

This course is an introduction to the study of the art of cinema. It provides students with a foundation in the analysis of both narrative and cinematic style. The course will examine how narrative elements such as story, characters, and theme are interrelated with stylistic elements like settings, costumes, lighting, editing, cinematography, sound, and acting to help create and shape a film. The scope and sequence of the course will encompass both cinema history and specific genres. Students must be “active” viewers and will be required to respond to films in large and small group discussion and in writing, in an effort to increase understanding and appreciation of film.

+ DE ENG 238 LITERARY VISION OF FILM

Offered in grades 11-12 3 College Credits and .5 High School Credits

Class meets 6 period per cycle, 1 semester

Requirement: 0121 Introduction to Film must be completed before taking this course.

This course focuses on film as a mode of literary expression. After we develop baseline knowledge of the techniques and devices of literature, selected films are viewed and discussed as works of literature. Only films that were created as films - that is, not based on books or works of drama - are considered. This is not a "film" course, and techniques related to film are not studied. MHS course 0121 Introduction to Film is a prerequisite to this course. For dual credit classes taught by approved high school teachers, students will be charged the cost of one credit for a three or four credit course. The charge in previous years was \$168/credit. **An increase in the charge per credit may occur for 2019-20, but is not yet available.** All books are the responsibility of the student to purchase.

0124 MYTHOLOGY AND J.R.R. TOLKIEN

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: Instructor approval

Lab Fee: Acquisition of novels by students may be required

Tolkien's goal was to create mythology specific to England. Students in this class will come to understand the history, language, and peoples he created through an in-depth examination of *The Hobbit*, *The Lord of the Rings Trilogy*, and *Silmarillion*. Various myths that inspired Tolkien's own work will be examined as well. Interested students will dive into a world of elves, hobbits, wizards, and men and, in the end, gain a better understanding of the universal themes that make these stories so relevant today.

0128/.5 CREATIVE WRITING

Offered in grades 9-12

Class meets 6 periods per cycle, 1 semester, for .5 credits

Requirement: 80% average in English

This class is for students of all grades who want to explore the pleasures and rigors of writing creative fiction and non-fiction short stories. Required throughout the semester are numerous writing exercises, the reading and discussion of one another's writing in workshop format, and the development of a portfolio. Writing assignments and analysis of creative writing examples will also be required. All students can expect a fun, supportive, hardworking, and productive class atmosphere that encourages experimentation and constructive criticism. The emphasis is on literary development as both a reader and a writer. This class is pass/fail.

0135 ACTING AND THEATRE ARTS

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester; or 3 periods per cycle, all year. Requirement: Strong reading skills

This course may be taken more than once for credit to allow students with a strong interest in acting to continue to learn and grow in the field of study.

Students will learn the fundamentals of acting and the art of theatre. Students are expected to exhibit responsible behavior and a positive attitude. This course requires memorization, reading, and analysis of plays and scenes that will culminate into performances. Students will be required to participate in meaningful and thoughtful analysis of their work and the work of their peers. Areas of special interest such as costuming, set design, and makeup will also be explored.

0138 PUBLIC SPEAKING

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: None

This course is designed to introduce the basics of public speaking. The initial curriculum will cover setting the

purpose for the speech, selecting the resources necessary and refining the methodology of oral presentations. The course will utilize these groundwork skills to introduce the fundamentals of debate and prepare the student to not only speak comfortably in public, but also defend openly a personal point of view.

1986 AP CAPSTONE RESEARCH

Offered in grades 11-12 1.0 credits

Class meets 6 periods per cycle, 1 semester

Requirement: AP CAPSTONE SEMINAR

AP Research is the second course in the **AP Capstone™** program. The course culminates in an academic paper of 4,000-5,000 words and a presentation, with an oral defense; during which you will answer 3-4 questions from a panel of evaluators. If you earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of your choosing, you will receive the **AP Capstone Diploma™**. This signifies outstanding academic achievement and attainment of college-level academic and research skills. Alternatively, if you earn scores of 3 or higher in AP Seminar and AP Research only, you will receive the **AP Seminar and Research Certificate™**.

English Advanced Placement

Students are expected to read and respond to sophisticated literary expressions that are appropriate to a college level course.

+1974 ADVANCED PLACEMENT ENGLISH LITERATURE AND COMPOSITION (11)

Offered in grade 11 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: In order to enroll in an English AP level course, the student must have earned a minimum average of 70% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors course.

This course is demanding, requiring extensive independent research, reading, analysis, and writing. Students will be expected to analyze and respond to texts and genres representing literature from the Greek classical age through the 21st century. Students will demonstrate through written, oral, and creative means how the elements of language reflect theme and meaning. This course also expects students to study and demonstrate understanding about how social, political, intellectual, and artistic forces shape literary works.

+1975 ADVANCED PLACEMENT ENGLISH LANGUAGE AND COMPOSITION (12)

Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: In order to enroll in an English AP level course, the student must have earned a minimum average of 70% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors course.

This course will be vigorous, requiring extensive reading and writing activities and library research, as well as an intensive review of grammar and rhetoric. Students will write in-class, timed, analytical essays based on pre-assigned readings that will focus on content and writing techniques such as tone, sentence structure, organization, audience, and/or diction. Emphasis will focus on rhetorical division of an argument into two equally defensible positions incorporating thesis and antithesis into a confident, well-supported synthesis. Each semester will culminate in a formal research paper. In addition, some in-class and at home assignments will take a less formal approach such as “creative” imitation exercises mimicking the style of a particular writer.

Family and Consumer Sciences Department

“Family and Consumer Sciences Education empowers individuals and families across the lifespan to manage the challenges of living and working in a diverse global society. Our unique focus is on families, work, and their interpersonal relationships.” Based on the Pennsylvania Association of Family and Consumer Sciences, this mission reflects the integrative approach, skills, and tools provided to all students. These competencies enable the students to successfully live and work in the 21st century.

Students may choose to take Consumer Decisions, FACS, S.T.E.P.S., Today’s Foods, Focus on Foods, Child Development, or Singles Survival to fulfill the FCS requirement.

The * indicates that the course fulfills the 0.25 credits of FCS required for graduation. Department offerings by grade level:

Grade 9	Grade 10	Grade 11	Grade 12
*Consumer Decisions *S.T.E.P.S. *Today’s Foods	*Consumer Decisions *Today’s Foods *Focus on Foods *S.T.E.P.S. *FACS of Life	*Child Development *FACS of Life *Focus on Foods International Cuisine *Singles Survival	*Child Development *FACS of Life *Focus on Foods International Cuisine *Singles Survival

*0800 FOCUS ON FOODS

Offered in grades 10-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Fulfills graduation requirement

Rediscover food basics, nutrition, and “from scratch” food preparation. Accomplish self-sufficiency in the kitchen intermingled with group culinary projects. Prepare a variety of foods using traditional core recipes with a twist and look at the costs involved in food budgets. Examine food-related careers with an eye towards more than “chef.” Enjoy an online collection of your creations. Presenting food information and sampling foods are a course requirement

0801 INTERNATIONAL/AMERICAN CUISINE

Offered in grades 11, 12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: Successful completion of Focus on Food or Today’s Foods

Students will master the culinary arts of both the regional United States and other world cultures using creative menus and gourmet techniques. Developing buffet meals, presenting a food unique to a particular region or culture and sampling prepared foods are integral to the course. A \$10.00 lab fee is required.

*0802 FACS OF LIFE

Offered in grades 10, 11, 12 .25 credits

Class meets 3 periods per cycle, 1 semester

Fulfills graduation requirement

What is Family and Consumer Science? What can we learn from our past, our ancestors, our experiences, our determination, and our future dreams? Take a spin around the circle of life and creatively explore how to manage successfully the roadblocks and conflicts of living in today's world.

***0803 TODAY'S FOODS**

Offered in grade 9, 10 .5 credits

Class meets 6 periods per cycle, 1 semester

Fulfills graduation requirement

What are the eating patterns of the changing American family? How do convenience and fast foods impact the family budget? When did "My Plate" replace the Food Guide Pyramid? Create many dishes and meals for today's lifestyles while learning new cooking skills and equipment. Attain the expertise needed for planning and preparing a family meal – your final project! Leave class with a Google recipe cookbook! Sampling class-prepared foods is a course requirement.

***0805 S.T.E.P.S. – Solving Teens Experiences and Problems Successfully**

Offered in grades 9-10 .25 credits

Class meets 3 periods per cycle, 1 semester

Fulfills graduation requirement

Based on the inspirational book, *The 7 Habits of Highly Effective Teens*. Explore the pathways of teen life and focus on lifelong values and principles that will lead you to success. As you navigate the high school years, set short term and long-term goals and learn how to balance school, friends, relationships, family, and work. With all the challenges in today's teen world, we will examine them and seek positive solutions.

***0835 SINGLES SURVIVAL**

Offered in grades 11, 12 .25 credits

Class meets 3 periods per cycle, 1 semester

Fulfills graduation requirement

Ready to move out? Ready to live on your own or in a dorm? Investigate apartment hunting, paychecks and spending, banking, and recruiting techniques. Honing communication skills and learning how to balance your budget now, will enable your success going forward. Think of it as Reality 101.

***0840 CHILD DEVELOPMENT**

Offered in grades 11, 12 .5 credits

Class meets 6 periods per cycle, 1 semester

Fulfills graduation requirement

Is it that hard to be a parent? Take "Baby Think-it-Over" home and experience the emotional and practical dynamics of parenting and the effects on the family. Wear the "Empathy Belly" and feel the baby kick. Explore how to have a healthy baby, what happens to mom during the pregnancy, how the baby grows, labor, delivery and birth. This course is recommended for all students. If choosing elementary education, day care or nursing as a career, this class would be extremely beneficial.

***0860 CONSUMER DECISIONS**

Offered in grades 9, 10 .25 credits

Class meets 3 periods per cycle, 1 semester

Fulfills graduation requirement

Needs versus wants – what is the difference? Take charge of knowing the difference by making thoughtful decisions based on consumer savvy. Get the best value for your dollar and investigate how advertising hooks the American public. Understand the role credit and debit cards play in our Global Economic world. “If it sounds too good to be true” will be examined along with internet safety and protection against scams and identity theft. Does the brand name truly taste better? Comparison shopping and designing an advertising campaign will be integral activities in this class.

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Health and Physical Education

* indicates that this PE or Health course fulfills a grade level graduation requirement for the mandated three years of PE and one required Health courses.

The Health and Physical Education program helps students grow physically, mentally and socially. Physical Education classes promote total fitness by developing cardiovascular and muscular strength, coordination, social skills, and healthful habits. Lifetime sports and recreational activities are introduced in the 11/12th grade program while movement training is emphasized at the 9/10th grade level. Students who need physical or remedial help will be scheduled for the adapted physical education program. This need will be determined by the student's instructors, physician, and/or school personnel.

Three years (1.5 credits) of physical education are required by Methacton School District. Satisfactory completion of health and physical education is a graduation requirement. Beginning in the 10th grade year, students are to take and pass the required health course. Satisfactory completion of this health course is a graduation requirement. In addition, the Red Cross Standard First Aid and CPR course and Lifeguarding are offered as electives. These electives cannot be substituted for the required health courses or a PE course.

Students unable to meet the requirements of any PE course due to medical reasons shall be withdrawn without penalty and required to make up the course during another semester.

* PHYSICAL EDUCATION

0005

Required in grades 9-10 0.5 credits for full year

Class meets 3 periods per cycle, semester 1 and semester 2

Physical Education for the 9th and 10th grades will be a planned course of study designed to provide physical activity and learning situations through movement training. Participants will also be exposed to individual and team sports with a focus on community building. Participation in activities will help develop further coordination, motor skills, strength, competition, and teamwork. One marking period of aquatics is required in both 9th and 10th grades. Throughout this programing an emphasis is made on current and life-long fitness.

0017

Required in grade 11 0.5 credits for full year

Elective in grade 12

Class meets 3 periods per cycle, semester 1 and semester 2

Physical Education for 11th and 12th grades will be an elective, co-ed program, where students will have the opportunity to select a variety of lifetime fitness-based courses. Participation in these activities will develop leadership, physical fitness, and allow students to gain insight into their fitness needs for the future.

0007/0008 PHYSICAL EDUCATION MAKE-UP

0007 Semester 1

0008 Semester 2

Offered in grades 9, 10. 0.25 credits each

For students who failed a prior PE course. PE failures will be scheduled by semester. Students are scheduled into existing PE classes but it is recorded as a Make-up on the schedule and transcripts.

0013 STANDARD FIRST AID WITH CPR AND AED

Offered in grades 9-12, elective course 0.25 credits

Class meets 3 periods per cycle, one semester

Basic First Aid problems and CPR will be instructed and practical application of skills will be performed. Coping with bleeding, breathing, broken bones, and sudden illness are a few of the areas that will be covered. Certification by the American Heart Association is possible, but not required. Students are required to pay for certification materials.

*0011 HEALTH

Required Course

Offered in Grade 10 (11-12 by exception) 0.25 credits

Class meets 3 periods per cycle, one semester

This course will explore a wide spectrum of issues that influence our students as they are coming of age. The course content will include stress, depression, suicide, mental health disorders, substance abuse, sexuality wellness, self-esteem, substance abuse, and nutrition. The focus will be on preventative strategies needed in today's society with a focus is on current social problem solving using the information they have been taught throughout the previous health curriculum.

0020/0022 ADAPTED PHYSICAL EDUCATION

Offered in grades 9-12 0.25 credits

Class meets 3 periods per cycle, each semester

Offered Pass/Fail

Requirements: Students must meet the necessary requirements for appropriate placement.

Adapted Physical Education (APE) is Physical Education that is individualized and specially designed to address the needs of students with disabilities who require adaptations or modifications to be physically active, participate safely and make progress toward Pennsylvania's Academic Standards for Health, Safety and Physical Education. This course does not include physical therapy.

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Mathematics

Constantly changing technology is influencing careers in all fields. To prepare our students for these new and exciting opportunities, Methacton offers a mathematics program with a variety of courses combining traditional theory with practical application.

Math Department Calculator Policy:

Many courses involve the use of the TI-83 or 83-Plus or TI-84 (graphing) calculator. **It is required that each student purchase his/her own calculator.** This calculator will be used for the duration of the student's math courses selected at Methacton. If purchase is not financially possible, a calculator will be made available to the student as supplies last.

Mathematics

An * next to the course number indicates that the course counts toward the graduation requirement of three Mathematics credits.

Because of the sequential development of the mathematics curriculum, students should fulfill requirements as stated for a previous course, before advancing to the next sequential level.

SUMMER WORK is assigned for **ALL Students** enrolling in the general academic levels and Honors as listed in the Program Planning Guide.

Students not meeting certain requirements are to enroll in the next appropriate course sequence.

Students not meeting the requirements, but who wish to remain in the same sequence, may seek extra help, tutoring, etc. and test into the next level course of the same sequence, need to apply for an appeal. This procedure is described above in this Program Planning Guide.

Below, please find a chart to assist you in planning the appropriate sequencing for your planned course of study in our Mathematics Department.

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Mathematics Course Sequencing

Keystone Status	If in 8 th Grade you took:	9 th Grade Course	10 th Grade Course	11 th Grade Course	12 th Grade Course
With math IEP	Bridges	DI Standards	DI Secondary	DI Algebra II	DI Fund. Geom.
General Ed.	Bridges	Algebra I	Algebra II - AND - (if not proficient on Keystone) Foundations	Fund. Geom. - OR - Geometry	Academic Math - OR - Algebra III & Trig.

Not yet Keystone Proficient	Algebra I	Algebra II - AND - Foundations	Fund. Geom. - OR - Geometry	Academic Math - OR - Probability & Trigonometry - OR - Algebra III & Trig.	Academic Math - OR - Probability & Trigonometry - OR - Pre-Calculus
Keystone Proficient	Algebra I (pass Algebra I 70% - 80%) Algebra I (pass Algebra I > 80%) (pass Algebra I > 90%)with placement test	Fund. Geom. -OR- Algebra II Geometry Honors Geom.	Algebra II - OR - Fund. Geom. -OR- Geometry -OR- Algebra II & Trig	Pre-Calculus - OR - Algebra III & Trig. - OR - AP Statistics	Pre-Calculus - OR - Calculus - OR - AP Statistics
Keystone Proficient	Honors Alg. I	Honors Geom.	H. Alg. II & Trig.	H. Pre-Calculus - AND/OR - AP Statistics	AP Calculus AB - AND/OR - AP Statistics
Keystone Proficient	Honors Geom.	H. Alg. II & Trig.	H. Pre-Calculus	AP Calculus AB - AND/OR - AP Statistics	AP Calculus BC -AND/OR - AP Statistics

Students desiring to move into the honors levels from the regular academic curriculum need to meet the math department requirements and test into the course with approval from the department coordinator. Testing is offered during the last week of school or immediately after the school year concludes and is coordinated through the Math Department Coordinator. The only students eligible to take this test must have earned a 90% or better in the regular course.

Secondary Mathematics Course Sequence

Secondary Mathematics Course Sequences, with requirements fulfilled to advance:

Grade	Option 1	Option 2	Option 3	Option 4
9	Alg. I	Alg. I	Geometry	Honors Geometry
10	Fund Geometry	Geometry	Alg. II & Trig.	Honors Alg. II & Trig.
11	Alg. II	Alg. II & Trig	Alg. 3/Trig , Pre-Calculus	Honors Pre-Calculus
12	Academic/Alg. 3 or Probability or Trigonometry	Alg. 3/ Trig, Pre-Calculus	Contemporary Calculus AP Calculus	AP Calculus

Math Foundations, has been added to the curriculum as a supplemental math class. Students are placed based on their math progress indicated by end-of-course grades, PSSA, and Keystone scores. Math Foundations runs concurrently to the selected math course to support and supplement the math instruction and better insure success in math and on the Keystone Algebra I exam.

*0409 CONTEMPORARY CALCULUS

Offered in grade 11-12 1.0 credit

Class meets 6 periods per cycle, all year

Required: Pre-Calculus

Summer Work as posted on website

Students choosing this course should expect a course similar to a first-year, college calculus course. The curriculum will contain all of the usual topics in Calculus such as functions, limits, differentiation, and integration but the approach to learning will be different. The course will stress applications, experimentation, etc. and not stress the theory involved in an AP Course. Student will not be ready to take an AP exam in the spring of their senior year. Course includes use of TI -83/84 calculators. Refer to Math Department Calculator Policy above.

***0415 ACADEMIC MATH**

Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Required: Algebra I, Geometry; or Fundamentals of Geometry;

This course is intended for students who are in the academic program but have difficulty with the theory involved in geometry, Algebra I and/or Algebra II. It will cover topics such as problem solving, estimation, set theory and application, number theory, basic geometric and trigonometric concepts, basic algebraic concepts, consumer math, mathematical applications of Excel, probability, and statistics. Students who passed Algebra II and Trig. and/or Alg. 3/Trig are NOT eligible.

***0419 ALGEBRA I**

Offered in grades 9 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: Appropriate Algebraic background

Summer Work as posted on website

Algebra is required for entrance into colleges and universities. This course will prepare students to be proficient on the Keystone Exam, a graduation requirement. This curriculum also meets Pennsylvania Core Standards as well as all the National Council of Teachers of Math (NCTM) "standards."

***0420 ALGEBRA II**

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Required: Algebra I, Geometry or Fundamentals of Geometry

Summer Work as posted on website

This course covers the algebra that is currently presented in our Algebra II and Trigonometry course but little or none of the trigonometry. It is designed for the academic student in grade ten, eleven, or twelve that finds algebra difficult. Course includes use of TI-83/84 calculators. Refer to Math Department Calculator Policy above.

***0421 ALGEBRA II & TRIGONOMETRY**

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Required: 80% or better in both Algebra I and Geometry

Summer Work as posted on website

This course offers the students an integrated study of algebra and trigonometry. It is necessary for all students planning to major in math, science, engineering, or business in college. Course requires use of the graphing TI-83/84 calculator. Refer to Math Department Calculator Policy above.

***0422 ALGEBRA III & TRIGONOMETRY**

Offered in grades 11 - 12 1.0 credit

Class meets 6 periods per cycle, all year

Required: preferred 80% in Algebra II, or less than 80% in Algebra II & Trigonometry

Summer Work as posted on website

This course is designed to reinforce Algebra skills presented in either Algebra II or Algebra II & Trig. More emphasis on algebra with advanced topics, and trigonometry is introduced. Course includes use of the graphing calculator. Refer to Math Department Calculator Policy above.

***0426 ALGEBRA II & TRIGONOMETRY HONORS**

Offered in grade 9-10 1.0 credit

Class meets 6 periods per cycle, all year

Required: 83% Honors Algebra I, 83% Honors Geometry or appropriate placement test subject to Math Department approval. **No acceleration is permitted to meet the requirements for this course.**

Summer Work as posted on website

This course offers the accelerated student an intensive, integrated study of Algebra and Trigonometry. This course covers more material than Algebra II & Trigonometry #0421 and gives greater challenge with previously covered material. Review work is minimized. Course requires summer work and use of the graphic calculator. Refer to Math Department Calculator Policy above.

***0427 TRIGONOMETRY**

Offered in grades 12 .5 credit

Class meets 6 periods per cycle, 1 semester

Required: 70% in Algebra II

Topics in this course will include triangle and circle trigonometry, word problems and applications using trigonometry. In addition, trigonometric identities, formulas and solving equations and applications of trigonometry will be covered.

***0429 FUNDAMENTALS OF GEOMETRY**

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Required: Algebra I

Summer Work as posted on website

Students will develop a mathematical system based on definitions, theorems, deductive proof, and logic. Relationships between geometry and other branches of mathematics will be investigated. An analytical approach will be used to solve practical problems and will include an introduction to the formal "proof." Essential Algebra skills will be integrated into geometry practices to reinforce formulas and principles used in problem solving.

0430 GEOMETRY

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year Required: 80% Algebra I, Algebra I Keystone Exam.

Summer Work as posted on website

Students will develop a mathematical system based on definitions, theorems, deductive proof, and logic. Relationships between geometry and other branches of mathematics will be investigated. A strong foundation in algebra skills is required. An analytical approach will be used to solve practical problems. Two columned proofs are included.

***0432 GEOMETRY HONORS**

Offered in grade 9 1.0 credit

Class meets 6 periods per cycle, all year

Required: 83% Honors Algebra I, **(Not eligible for acceleration)** or appropriate placement test subject to Math Department approval.

Summer Work as posted on website

This course offers a more varied and intensive study of geometry than geometry course #0430. An exploratory approach is used to develop concepts. Long and short-term projects are assigned to reinforce ideas. This course is designed for students talented in mathematics, who can independently analyze through student - driven activities.

0438 MATH FOUNDATIONS

Offered in grades 9-11 0.5

Class meets 3 periods per cycle, all year

Students are selected for this class based on their individual progress in Math course sequence, grades earned in current math class, and results from standardized testing (PSSA and and PVAAS projections).

Math Foundations will address Algebra standards as determined by state assessments and other local assessments. This will be a highly differentiated instructional model that will address the specific needs of students in the class and change with the enrolled population each year.

Learning experiences will be isolated to those standards seen as being in deficit for individual students including basic math concepts learned in previous years. This course will provide students with objective information about their defined weaknesses in algebraic concepts while giving them the time and support to gain the skills necessary for success in Algebra I, the Algebra I Keystone to meet the graduation requirement for proficiency, and the student's next sequential math courses.

*0441 PRE-CALCULUS

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Required: Algebra III & Trig. (best to have 75% or better) or 80% Algebra II & Trig.

Summer Work as posted on website

This course is intended for students who have mastered intermediate algebra and trigonometric concepts, and aims to prepare students for a calculus course. Course requires use of the graphing calculator. Refer to the Math Department Calculator policy on page 20.

*0442 PRE-CALCULUS HONORS

Offered in grades 10, 11 1.0 credit

Class meets 6 periods per cycle, all year

Required: 83% Honors Algebra II and Trig., or placement test subject to Math Department approval.

This course is not eligible for acceleration.

Summer Work as posted on website

This course is designed to prepare the student for our AP Calculus. It includes more advanced mathematical concepts than the Pre-Calculus Course #0441. This course is considered largely, application based and includes numerous word problems. Course requires summer work and use of the graphing calculator. Refer to the Math Department Calculator policy above.

*0453 PROBABILITY

Offered in grades 12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: Algebra II

Topics in this course will include probability and some statistics. It will NOT be the same course as the AP Statistics already offered. Students will be neither prepared nor eligible to take the AP exam in May.

*1978 ADVANCED PLACEMENT CALCULUS AB

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Required: 83% Pre-Calculus Honors, 95% Pre-Calculus

Summer Work as posted on website

This course is designed for students who wish to pursue a career in math or science. It presents analytical geometry, functions, limits, the derivative, the integral, and their applications and it is approximately equivalent to the first year of calculus in college. Course requires summer work and a graphing calculator (T1-83 plus). Refer to math department calculator policy on page 20.

***1983 ADVANCED PLACEMENT CALCULUS BC**

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: Advanced Placement Calculus AB

This course is designed for students who wish to pursue a career in math or science. The students are exposed to two broad themes; derivatives, rates of change and their applications and integrals, Riemann sums and their applications. The course is approximately equivalent to a second year college calculus course. Course requires summer work and a graphing calculator (T1-84 plus). Refer to math department calculator policy on page 20.

***1993 ADVANCED PLACEMENT STATISTICS**

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Recommendation: The AP Statistics course is designed for mature 11th or 12th grade students who have completed the Algebra II/Trig course or Pre-calculus with an **85%** or better. It is recommended to take this course **immediately** following achieving an **85%** or better in Algebra II/Trig or Pre-calculus. Students who take this course are expected to take the AP exam in May. The course is designed to introduce students to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Students are exposed to four broad themes: exploring data, planning a study, and anticipating patterns and statistical inference. This course is an excellent choice for the college bound student whose future plans may include science, business, psychology, or many other majors as well. Course requires use of calculators, Refer to math department calculator policy on page 20.

Mathematics Based Technology and Programming Courses

0460 ROBOTICS ELECTRONICS

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: 80% or above Alg. 1

This hands-on course is for students who want to design and build electric circuits that are controlled by an Arduino microprocessor that they program. The course begins with instruction on simple circuits. Once students understand that, Arduino programming begins. Finally, sensors and motors are presented for students to employ.

0455 INTRODUCTION TO COMPUTER SCIENCE

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Requirement: 80% or better in Alg. 1

Students will learn how to program using Python. This is an excellent introduction to a vital and growing field. Interested students can further develop their skills by taking AP Computer Science A after this course.

0456 ADVANCED JAVA CONCEPTS

Offered in grades 11, 12 .5 credits

Class meets 3 periods per cycle, all year

Requirement: 75% in AP Computer Science A

This course is designed as a follow-up course for a student who takes AP Computer Science A as a junior or sophomore. It will cover advanced data structures, object oriented design, and graphics.

1997 ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

Offered in grade 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: 85% or better in Algebra 1 and Geometry AND an 80% in English

This course is equivalent to a college-level, introductory course for non-Computer Science majors. It is an opportunity to better understand computer science and its role in the world. Core concepts include abstraction, data/information, algorithms, programming, the internet, and global impact. No prior programming experience is required. Students will be researching and writing about various topics as well as learning the basics of software programming.

1998 ADVANCED PLACEMENT COMPUTER SCIENCE A

Offered in grade 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: a) 85% in Introduction to Computer Science **OR** b) Honors/AP Math in rising 11th or 12th grade **OR** c) 80% in AP Computer Science Principles

This course is designed for students interested in a rigorous course in computer science that includes instruction in Java. This course emphasizes programming methodology with a concentration on problem solving and algorithm development. The course is meant to be the equivalent of a first-semester college course in Computer Science.

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Music

The Music program is designed to provide opportunities for all students to explore the many facets of music. Performance is a major focus including Band, Orchestra, and Chorus. Theory and Composition courses afford advanced training for aspiring professionals and Guitar classes offer to all a lifelong skill for the enjoyment of making music. **Some courses may be “cascaded”. See information regarding cascading on page 7.**

CONCERT BAND

0932 Class meets 3 mods per cycle all year .5 credits

0934 Class meets 6 periods per cycle all year 1.0 credits

Offered in grades 9-12

Requirements - Attendance at all concerts and occasional extra rehearsals is **required**.

This active musical organization performs concerts at school and in the community. All types of music are studied and performed. The course is open to any student who has a desire to develop skills in playing a musical instrument with a minimum of one-year experience. Attendance at all performances is mandatory.

0940 STRING ENSEMBLE

Class meets 6 periods per cycle, all year 1.0 credit

Offered in grades 9-12 Attendance at all concerts and Wednesday evening rehearsals is **required**.

Requirements - Teacher Approval/ Strings only

Any string players may sign up for this course; **no audition is required**. String Ensemble offers an advanced opportunity for students to rehearse and perform an expanded variety of classical and popular literature while playing several performances throughout the year. This course allows for expansion of string techniques and literature.

0942 STRING ORCHESTRA Class meets 3 periods per cycle, all year .5 credit
Offered in grades 9-12 Attendance at all concerts and Wednesday evening rehearsals is **required**.
Requirements - Teacher Approval/ Strings only

Any string players may sign up for this course; **no audition is required**. String Orchestra offers an opportunity for students to rehearse and perform a wide variety of classical and popular literature while playing several performances throughout the year. This course allows for expansion of string techniques and literature.

CONCERT CHOIR (chorus)

0951 Class meets 3 periods per cycle, all year .5 credits
0953 Class meets 6 periods per cycle, all year 1.0 credit
Offered in grades 9-12 Attendance at evening concerts and occasional evening rehearsals is **required**.

Anyone interested in singing may sign up for this course; **no audition is required**. Rehearsals are scheduled daily in preparation for the many performances given each year by the choir. In addition to the regular Holiday and spring concerts, the choir appears at numerous functions in and around the community. This organization is open to anyone with an interest in singing. No audition is necessary.

CHORALE (advanced chorus)

0956 Class meets 3 periods per cycle, all year .5 credits
0958 Class meets 6 periods per cycle, all year 1.0 credit
Offered in grades 9-12
Requirements – Audition, attendance at evening concerts, and Monday evening rehearsals is **required**.

For the student with exceptional interest and ability in vocal music, the Chorale performs literature of all periods of musical history. An audition is required.

0960 GUITAR

Offered in grades 9-12 .25 credits
Guitar is designed for the student who wants to explore guitar playing.

Rock styles as well as folk, jazz and classical repertoire will be used in class. Techniques explored include pick style and finger style. Primary chord study using strumming will be developed. The study of music notation and theory is included in the course and is learned through workbooks and technology. Students will use nylon acoustic guitars provided in school. Advanced students will work on expanded chord study using both strumming and finger-picking. Guitar may be selected for one or both semesters of the school year.

0968 MUSIC THEORY AND COMPOSITION

Offered in grades 9-12 .5 credit
Class meets 3 periods per cycle, all year

The purpose of this course is to acquaint the student with the basic principles of melody, harmony, rhythm, and music literature, and to afford an opportunity for beginning experiences in music composition. It should be considered a necessity for prospective music students.

1991 ADVANCED PLACEMENT MUSIC THEORY

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: Teacher Approval.

This course is a continuation and advanced version of Music Theory and Composition. Music literature and all phases of intermediate composition and harmony are covered. Ear training, sight-singing, elementary keyboard and analysis are also studied. The content of this course mirrors a first-year college music theory course and only the serious music student should apply.

0967 DIGITAL AUDIO ENGINEERING

Offered in grades 10-12. .5 Credit.

Class meets 3 periods per cycle, all year.

Are you interested in a career in the Music Industry? If so, this course will explore aspects of digital audio recording and live performance applications. Using industry-standard hardware and software, students will explore recording with acoustic instruments (including voice) and with software/MIDI instruments. How this is applied to live performance is also part of the experience. Understand of music notation and theory is encouraged, but it is not a prerequisite.

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Science

*** indicates that this course counts toward the graduation requirement of three mandated Science credits.**
+ indicates that this course carries a weight of 1.2

Methacton's science courses provide students many ways to prepare themselves for advanced study in the field of science or to satisfy their scientific curiosity. Biology, Chemistry and Physics are the basics, but courses like Environmental Science, Oceanography, etc. may have special appeal for many students.

Recommended Sequence of Science Courses, with requirements fulfilled to advance:

Grade Level	Choice #1	Choice #2	Choice #3
9	Environmental Science	Environmental Science Honors	Biology Honors & Accelerated Environmental
10	Academic Biology	Biology Honors	Dual Enrollment General Chemistry, Chemistry Honors, or Academic Chemistry
11	Dual Enrollment General Chemistry, Academic Chemistry or Chemistry in the Community	Chemistry Honors, Dual Enrollment General Chemistry, or Academic Chemistry	Honors Physics or Academic Physics or any AP Science Class
12	Academic Physics or Oceanography or Conceptual Physics or Environmental	Honors Physics or Academic Physics and possibly AP science or Anatomy & Physiology	AP sciences and/or Anatomy & Physiology

*0505 ENVIRONMENTAL 9 SCIENCE

Offered in grade 9 1.0 credit

Class meets 6 periods per cycle, all year

This course covers the major topics in environmental science including the ecosystems, populations &

communities, biomes, energy & resources, watersheds & wetlands, pollution and health and environment which are a major part of the keystone exam. A hands-on approach will be used.

***0506 ENVIRONMENTAL 9 SCIENCE HONORS**

Offered in grade 9 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 90% or above in 8th grade academic science or an 85% in 8th grade honors science, each with teacher approval.

This course should prove challenging and beneficial for all accelerated students desiring to pursue the sciences. Honors Environmental Science is an in depth view of the major themes in environmental science including watersheds & wetlands, energy & resources, ecosystems, populations & communities, pollution, and environmental health which are a major part of the keystone exam. Laboratory work and analysis will be an integral part of the curriculum. This course should be taken before Biology and the Biology Keystone exam.

0507 ENVIRONMENTAL 9 SCIENCE ACCELERATED STUDY

Required for and only available to grade 9 students taking Honors Biology

Class meets 2 periods per cycle, 1 semester .2 credits

This course is specifically designed as a requirement for freshmen who are taking Honors Biology concurrently. It will present the major concepts of Environmental Science that are not covered in Honors Biology. These topics include ecosystems, energy, environmental health, and pollution that are a major part of the Keystone exam.

***0511 ACADEMIC BIOLOGY**

Offered in grade 10 1.0 credit

Class meets 7 periods per cycle, all year

Requirements: 60% or better in Environmental 9.

Topics covered include cell structure and function, genetics, evolution, organisms, ecology and the environment. Laboratory work is an integral part of the course.

***0510 BIOLOGY HONORS**

Offered in grades 9 & 10 1.0 credit

Class meets 7 periods per cycle, all year

Requirements: 9th grade students must have minimum 93% in 8th grade Honors Science or a 95% in 8th grade Academic Science. 10th grade students must have a 95% or better in Environmental Science or 90% in Environmental Science Honors.

This course should prove challenging and beneficial for all accelerated students as it presents science as inquiry. The course includes major themes: unity and diversity, cells, genetics, evolution, the environment and life processes/systems. Laboratory work will be a vital part of the curriculum.

All ninth grade students taking this course must also enroll in Environmental Accelerated Study (course #0507, .20 credits). This independent study will focus on major concepts of geology and environmental science. Students will be responsible for completing assignments from outside, supplemental, reading materials and independent research along with guided instruction from an assigned Environmental mentor.

***0513 HUMAN ANATOMY & PHYSIOLOGY**

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year.

Requirements: **80% or better in Honors Biology, 85% or better in Academic Biology, 75% or better in Honors Chemistry, 80% or better in Academic Chemistry/DE Chemistry or taking Chemistry concurrently (with departmental approval).**

This is a challenging introductory college level course designed to explore in detail the major systems of the human body. Mastery of structure & function is essential in discussing such topics as homeostasis & anatomical terminology, histology, the skeletal & muscular systems, the nervous system, blood & circulation.

Requirements include a number of dissections and lab practical examinations.

*0514 CHEMISTRY IN THE COMMUNITY (CHEMCOM)

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: None

This course is a practical, hands-on, approach to chemistry with a lower emphasis on math. Chem. Com. is intended to help students to be more scientifically aware citizens by emphasizing chemistry's impact on society. This is done by applying chemistry to real environmental issues including: water quality, conservation of resource, petroleum use, nuclear energy, food chemistry, and the human population's impact.

*0530 ACADEMIC CHEMISTRY

Offered in grades 10-12 1.2 credits

Class meets 7 periods per cycle, all year

Requirements: 70% or better in Biology and 70% or better in Algebra I. (Selected tenth graders may qualify for this course.)

This course covers basic chemistry in light of modern concepts. Fundamental theories, laws, and chemical calculations receive thorough attention. Laboratory work is an integral part of the course.

*DE CHE 121 GENERAL CHEMISTRY I (Montgomery County Comm. Coll. Course CHE 121)

4 college credits 1.2 High School Credits

Taught on-site at the High School

Seats are limited; enrollment in course is pending additional placement requirements by MCCC

Class meets 7 periods per cycle, all year

Requirements: 82% or better in Academic Biology, Academic Algebra I and Academic Geometry **or** a 72% or higher in Honors Bio, Honors Algebra I and/or Honors Geom.

Students must purchase their textbook from MCCC's campus bookstore (**approximately \$150 new or \$95 used**), or from students who have previously taken the course. For dual credit classes taught by approved high school teachers, students will be charged the cost of one credit for a three or four credit course. The charge in 2016-17 was \$168/credit. **An increase in the charge per credit is expected for 2018-19, but is not yet available.**

NOTE: DE General Chemistry 1 (Montgomery County Community College Course CHE 121) designed to acquaint liberal arts and nursing majors with certain fundamental facts, principles, and techniques of chemistry with a view toward their application in modern life. Upon completion of the course with at least a 70% average, you will earn 4 college credits (3 lecture, 1 lab) in chemistry through MCCC. These credits are considered "highly transferrable" to many 4-year universities as long as the student is not majoring in a science or engineering. Passing this course will also satisfy one (1) of the three (3) science credits required for Methacton graduation.

The rigor of this course will be greater than Methacton's Academic Chemistry course, but not as rigorous as our Honors Chemistry course.

0535 CHEMISTRY HONORS

Offered in grades 10, 11 1.2 credits

Class meets 7 periods per cycle, all year

Requirements: (80% Honors Algebra and 80% Honors Geometry) **or** (90% Academic Algebra I (9th grade) **and** 90% Academic Geometry); 90% Academic Biology or 80% Honors Biology.

This course is an intensive, accelerated, first-year chemistry course requiring excellent mathematical and reasoning skills. Topics such as equilibrium, kinetics, acid/base reactions, thermodynamics, and stoichiometry will be studied at a level requiring advanced mathematical, reasoning abilities.

*0545 OCEANOGRAPHY & MARINE BIOLOGY

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: A passing grade in Environmental Science and Biology.

This course is designed as an elective for 11th and 12th grade students who wish to pursue a more in depth understanding of fundamentals learned in Earth Science. The course will include Marine Biology, Marine Geology, coastal changes, and Physical and Environmental Oceanography. Man's interaction with the oceans will be discussed.

*0549 CONCEPTUAL PHYSICS

Offered in grades 11, 12 1.0 credits

Class meets 6 periods per cycle, all year

Requirements: A passing grade in Chemistry

This course is designed to introduce the fundamental concepts of physics without the use of advanced mathematics. It will explore methods to predict, control, calculate, measure, and observe the physical world in the areas of basic mechanics, heat, light, sound, electricity, magnetism and nuclear physics as well as fluids and thermodynamics.

*0550 ACADEMIC PHYSICS

Offered in grades 11, 12 1.2 credits

Class meets 7 periods per cycle, all year

Requirements: 70% Algebra II & Trig, 80% Algebra II, passing any level Chemistry course.

This course is offered to all college preparatory students. Students are required to have a solid understanding of Algebra and Trig. functions. The course includes the study of mechanics, heat, light, sound, electricity and magnetism, and nuclear physics. Fluids and thermodynamics will also be covered.

*0551 PHYSICS HONORS

Offered in grades 11, 12 1.2 credits

Class meets 7 periods per cycle, all year

Requirements: 80% in Honors Chemistry or 90% in Academic Chemistry, or 87% in DE General Chemistry **AND** 70% in Honors Algebra II/Trig (or higher level math course), 80% in Algebra II/Trig, or 90% Algebra II.

This course is designed for students considering a technical or science career in college. Subject matter is mechanics, waves and optics, electricity magnetism. This is not a calculus-based course, although it is very demanding mathematically. Algebraic, trigonometric, and geometric concepts will be used on command, and there will be a strong emphasis on problem solving. Laboratory work is integral to the course as traditional

physics problems will be analyzed in detail.

Accommodations for acceleration: An Honors level student may apply to take Honors chemistry and Honors Physics together in their sophomore/junior year as long as they meet the following requirements: 90% Honors Bio, 90% Honors Algebra II/Trig (or higher level class). Grades are calculated at course selection time.

Advanced Placement Science

*+1979 ADVANCED PLACEMENT ENVIRONMENTAL SCIENCE Offered in grades 11, 12 1.3 credits
Class meets 8 periods per cycle, all year

Requirements: 80% average in Honors Biology, 85% average in Academic Biology, 75% average in Honors Chemistry, 80% average in Academic/DE Chemistry, and a 70% Average in Algebra.

This course will offer a detailed, “hands on” study of environmental issues and topics. Field studies, lab work and guest speakers will emphasize issues present in today’s environment. Topics will include fieldwork methodology, techniques in air, soil, and water quality testing, investigation of pollutants and their impact on the environment, along with the effects of human population growth on the environment. Students are expected to take the AP exam in the spring. Be prepared to get your hands dirty and your feet wet!

*+1980 ADVANCED PLACEMENT CHEMISTRY Offered in grades 11, 12 1.3 credits

Class meets 8 periods per cycle, all year

Requirements: 82% average in Biology 510 - Honors

82% average in Algebra II/Trig. – Honors or 92% average in Algebra II/Trig. **and**

87% average in Honors Chemistry or 97% average in Academic Chemistry/94% DE Chemistry

The Advanced Placement Chemistry course seeks to meet the objectives of the general chemistry course usually taken during the first-year of college. Topics such as the structure of matter, the kinetic theory of gases, chemical equilibria, chemical kinetics, and the basic concepts of thermodynamics will be presented. Laboratory work will be stressed as well as chemical calculations and mathematical formulation of principles. Students are expected to take the AP exam in the spring. A summer assignment will be given.

*+1981 ADVANCED PLACEMENT BIOLOGY Offered in grades 11, 12 1.3 credits

Class meets 8 periods per cycle, all year

Requirements: 85% average in Honors Biology or 95% in Academic Biology and 80% average in Honors Chemistry or 83% average in Dual Enrollment Chemistry or 85% average in Academic Chemistry

The student taking Advanced Placement Biology should be self-motivated and an independent worker. This course offers an in-depth study of biological processes and structures. Topics include molecules and cells, genetics, evolution, ecology, and both human and plant structure and function. Laboratory work, data analysis, and writing lab papers are all integral and required parts of the course. Students are expected to take the AP exam in the spring. A summer assignment will be given.

*+1982 ADVANCED PLACEMENT PHYSICS (CALCULUS BASED) Offered in grade 12 1.3 credits

Class meets 8 periods per cycle, all year

Requirements: 87% average in Physics

Concurrently taking AP Calculus or Contemporary Calculus

This course may be available to qualified eleventh graders with departmental approval.

This course is designed for the student pursuing a career in engineering or science. The subject matter is principally mechanics, electricity, and magnetism, with approximately equal emphasis on these areas. Strong emphasis is placed on solving a variety of challenging problems, some requiring calculus. There is emphasis on analysis in the laboratory as well as in the classroom. A summer assignment will be given. Students are

expected to take the AP exam in the spring.

NMTCC Science

+ Allied Health (Grade 12)

Allied Health is offered through North Montco Technical Career Center (NMTCC) and is designed for college preparatory students who are interested in pursuing a medical or health science career after high school. This program is based at Abington- Lansdale Hospital-Jefferson Health. See full course description in the NMTCC section.

+ Biotechnology (This is a Dual Enrollment Opportunity)

Biotechnology is offered through North Montco Technical Career Center (NMTCC). In partnership with Montgomery County Community College, **students can earn eight college credits** for an introductory survey course in Biotechnology and a laboratory course emphasizing technical skills and instrumentation. See full course description in the NMTCC section.

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Social Studies

*** indicates that this course fulfills a grade level graduation requirement for the mandated four years of Social Studies.**

+ indicates that this course carries a weight of 1.2

The social studies curriculum is designed to improve the awareness of students in global, national, and personal perspectives. In short, students will acquire global competence skills.

Recommended Sequence of Social Studies Courses:

Grade	Academic/Survey	Honors/Advanced Placement
9 required	(0201) European Studies, year	(0202) European Studies Honors, year (*+1969) AP European History, year
10 required	(0204) World Cultures, year	(0205) World Cultures Honors, year (*+1971) AP Human Geography, year
11 required	(0211) US and PA Cultures, year	(0212) U.S. and PA Cultures Honors, year (*+1977) AP U. S. History, year
12 required	(0251) U.S. Gov. and Econ., year	(0252) US Gov. and Econ. Honors, year (*+1970)AP U.S. Gov. and Politics, year
Electives Grades 10-12	(0240) Psychology, one semester (0263) Sociology, one semester (0264) Criminal Justice, one semester	

Elective Grades 11-12		(*+1976) Advanced Placement Psychology, year (*+1971) AP Human Geography, year
Elective Grade 12	(0241) Forensic Psychology, one Semester	

General Social Studies Requirements and Prerequisites

- Students cannot advance two curricular levels. (ex. Academic 11 to AP 12)
- To advance curricular levels (ex. Academic 11 to Honors 12), the student must have earned a minimum average of 90% in the previous Social Studies course.
- To enroll in a Social Studies Honors level course, the student must have earned a minimum average of 80% in the previous Social Studies Honors level course or have passed the previous Social Studies AP level course.
- To enroll in a Social Studies AP level course, the student must have earned a minimum average of 70% in the previous Social Studies AP course, or have earned a minimum average of 90% in the previous Social Studies Honors level course.

0201 EUROPEAN STUDIES

Only available to grade 9 1.0 credit

Class meets 6 periods per cycle, all year

European Studies offers a full year survey of Western European history. Students will study the geography of modern Europe tracing the development of the continent from the close of the Middle Ages to the present day. Topics include the Renaissance, Reformation, Enlightenment, French monarchy, and revolution, World War I, the Russian Revolution, and World War II. The course will also explore the rise of the 20th century dictators.

*0202 EUROPEAN STUDIES 9 HONORS Only available to grade 9 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

In an enriched atmosphere, which places major emphasis on critical thinking, creativity, problem solving, and collaborative learning, the student will experience a full year survey of Western European History. Students will study the geography of modern Europe and trace the development of the continent from the closing of the Middle Ages to the present day. Included topics are the Renaissance, Reformation, Enlightenment, French monarchy, and revolution, World War I, the Russian Revolution and World War II. The course will also explore the rise of the 20th century dictators. Efforts will be made to link historical periods studied in this course to literary themes discussed in ninth grade English.

*+1969 ADVANCED PLACEMENT EUROPEAN HISTORY

Only available to 9th grade 1.0 credit

Class meets 6 mods per cycle, all year

***Offered in grade 9th as a replacement course for Honors European Studies**

Requirements: 95% or higher in BOTH Honors Social Studies: US History 8th grade and Honors English 8th grade; This course has required Summer Assignments

This college level elective course prepares students for successful completion of the AP European History Exam in May. The course analyzes the impact that social, political, economic, religious, military, and intellectual factors had upon the development of Western Civilization from the end of the Middle Ages to Modern Times. Students will develop advanced analytical thinking, reading, research, writing, and public speaking skills through the evaluation of primary and secondary source documents, cause and effect relationships, the influence of geography upon history, as well as the concept of continuity and change over time by relating current events with the past. This is a writing intensive course which makes very extensive use of essay tests, document based analyses and essays, as well as art/literary/film reviews.

*0204 WORLD CULTURES

Only available to grade 10 1.0 credit

Class meets 6 periods per cycle, all year

The World Cultures curriculum will increase international understanding and appreciation by providing a foundation of knowledge of non-Western cultures, which allows for complex comprehension of current and potential issues, as well as the intrinsic worth of each culture studied. This foundation will better enable the student to respond to the realities of our global age. The regions to be examined are the Middle East, Africa, and Asia.

*0205 WORLD CULTURES 10 HONORS

Only available to grade 10 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

This course examines the non-Western cultures of the world and the impact they have on our global society. Over the course of their year of study, students will learn about the origins and development of societies in the Middle East, Sub-Saharan Africa, and Asia. In addition to the study of the regional history of these locations students will also examine the geography, belief systems, and modern issues. Through a variety of primary and secondary sources, electronic resources, and classroom discussions the student will better understand current global events and the relationships between the world's various societies.

*+1971 ADVANCED PLACEMENT HUMAN GEOGRAPHY

*Offered in grade 10 as a replacement course for Honors World Cultures 1.0 credit

Class meets 6 periods per cycles, all year

Requirements: 95% or higher in Honors European Studies

This introductory-college level course in human geography will introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students will employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. Students will also learn about the methods and tools geographers use in their science and practice. Goals of the course include using and thinking about maps and spatial data and characterize and analyze changing interconnections among places. Topics of study in the course will include the nature of geography, population, cultural patterns and processes, political organization of space, agricultural and rural land use, industrialization and economic development, and cities and urban land use.

Students who wish to take this course should enjoy an academic challenge and should be self-motivated. The course aims to expose students to a collegiate-level academic experience and to prepare students to take the Advanced Placement examination in May.

*0211 U.S. & PENNSYLVANIA CULTURES

Only available to grade 11 1.0 credit

Class meets 6 periods per cycle, all year

This course is a survey of the political, economic, social, and cultural aspects of the United States and Pennsylvania during the twentieth century. Course content begins with the Age of Imperialism to the present day and follows the emergence of the United States as a global superpower. A sample of topics that will be covered includes major military actions, social movements, cultural contributions, economic and political developments, and the growing influence of technology.

*0212 U.S. & PENNSYLVANIA CULTURES HONORS

Only available to grade 11 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

This course is a survey of the political, economic, social, and cultural aspects of the United States and Pennsylvania during the 20th century. Course content will cover the Progressive Era through the 21st century. The Cold War, Civil Rights, and Vietnam will be studied as thematic units. Topics will be examined in greater detail than the academic course through sophisticated content as well as in-depth class discussion on domestic and foreign issues, culture, civil rights, and election campaigns. Writing and supplemental readings in social studies will be emphasized.

*+1977 ADVANCED PLACEMENT UNITED STATES HISTORY

Only available to grade 11 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

This course has required Summer Assignments

This course is a survey of United States history from the Age of Exploration and Colonization to the present. Methods of instruction and grading are collegiate in nature. Reading and writing in the social sciences will be emphasized. Supplemental reading material and document analysis accompany the college-level textbook. Particular attention is given to the construction of a sophisticated, college-level essay exam. There is a significant amount of homework on a nightly basis. Independent learning is an important component of this course. Students who wish to take this course should enjoy an academic challenge and should be self-motivated. The course aims to expose students to a collegiate-level academic experience and to prepare students to take the Advanced Placement examination in May.

*0251 U.S. GOVERNMENT AND ECONOMICS

Only available to grade 12 1.0 credit

Class meets 6 periods per cycle, all year

This course is a study of how all three levels of government (local, state, and federal) operate in today's society, and how these levels of government affect people's everyday lives. The course also explores the Constitution and the Bill of Rights, examining how both have shaped American society. Students are encouraged to become participatory members in our democratic system through rigorous study of the American political system and related current events. In addition, the curriculum includes a six-week study of basic economics.

*0252 U.S. GOVERNMENT AND ECONOMICS HONORS

Only available to grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

This course follows the same curricular parameters of the academic class, but its content is broader in scope and more in-depth. Students must be highly motivated, as this course requires students to perform independent work outside of class. Additionally, the honors section(s) will focus on students' higher-level thinking skills - analysis, interpretation, evaluation, and application.

*+1970 ADVANCED PLACEMENT UNITED STATES GOVERNMENT AND POLITICS

Only available to grade 12. 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: General Social Studies Requirements and Prerequisites

This course has required Summer Assignments

The goal of this course is to develop an understanding of the political system of the United States - its history, traditions, values, and institutional frameworks. The chief focus is on government and the model of pluralist democracy. Methods of instruction will be collegiate in nature, including but not limited to: in-class lecture, textbook and supplementary source analysis, essay writing, analysis of court cases, independent research and reading, quarterly projects, and in-class presentations. Students MUST meet departmental requirements to schedule this course and should do so only with the strong recommendation of taking the culminating Advanced Placement Examination in May.

Social Studies Electives

0240 PSYCHOLOGY

Offered in grades 10-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Psychology examines the nature of human behavior. This course introduces students to the systematic and scientific study of this behavior. Students are exposed to the psychological theories, principles, and phenomena associated with several of the major subfields within psychology. Topics discussed include the history of psychology, learning, personality, and abnormal psychology. Through the use of readings, discussion, viewing, and experimentation, students will achieve a better understanding of themselves and the world they live in.

0241 FORENSIC PSYCHOLOGY

Offered in grade 12 0.5 credits

Class meets 6 periods per cycle, 1 semester

Requirements: 70% average in AP Psychology course

Forensic Psychology will provide an overview of criminal psychology and is available to students who have successfully completed AP Psychology. This class will explore a variety of psychological approaches used to answer the age-old questions of “Why do people behave the way they do?” and “What makes a person commit a crime?” We will look at the motives behind anti-social acts, such as persistent violence and multiple murders. Throughout the course, students will acquire knowledge and practice the application of psychological methods to understanding criminal behavior. Students will use critical thinking and research skills to examine problems and issues related to criminal behavior. Students will use critical thinking and research skills to write two APA formatted papers.

0263 SOCIOLOGY

Offered in grades 10-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Sociology, an elective course, is an introductory study in social behavior and organization of human society. This course will describe the development of the field as a social science by identifying methods and strategies of research leading to an understanding of how the individual relates to society and the ever changing world. Students will also learn the importance and role of culture, social structure, socialization, and social change in today’s society. Topics include introduction to Sociology, race & ethnicity, culture, social stratification, and gender roles.

0264 CRIMINAL JUSTICE

Offered in grades 10 - 12 0.5 credit

Class meets 6 periods per cycles, 1 semester

Students will analyze and evaluate the Criminal Justice system in the United States from the origination of the

crime through the criminal corrections process. This course examines historical and practical applications of criminal procedure and investigates the multiple layers of the justice system. Students will examine the causes, classifications, and enforcement of crime in both historical present day perspectives. Students will be expected to utilize critical thinking and analysis of information to understand concepts in multiple criminal activities in America, law enforcement, criminal court procedures, and prison life.

+1976 AP PSYCHOLOGY

Offered in grades 11-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirements: 90% average in previous Academic Social Studies course or 85% average in previous Honors Social Studies course or 70% average in previous AP Social Studies course.

***Students do NOT need to have taken Psychology to take this course.**

This course has required Summer Assignments

This rigorous course will introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students will be exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. There is a significant amount of homework using a college-level textbook. In addition, the methods of instruction will be collegiate in nature, including but not limited to: in-class lecture, textbook and supplementary source analysis, essay writing, research projects and independent research and reading. This course aims to expose students to a collegiate-level academic experience and to prepare students to take the Advanced Placement examination in May.

Technology Education

Technology Education courses provide hands-on learning experiences, along with skill development that foster the understanding of “technology” by the student. By practicing a variety of methods and processes, students develop the ability to evaluate the quality of finished products as well as develop work ethics in the timely completion of projects. Technology Education is an academic setting in which success depends on the application of learned skills, cooperation, and the social interaction among students.

Students may select a one-semester course in Technology Education or select a combination of a 2 progressive level courses (Advanced Materials Engineering or Architectural Engineering & Drafting) for a full year of credit in the curriculum. Students can also select a combination of a 2 different Technology courses to explore a variety of skills and subject content for a full year in Technology Education.

Students planning careers in engineering, the sciences, management, sales, or general employment can benefit from a series of Technology Education courses. Communication courses and drafting courses are particularly valuable for students considering engineering, graphic design, photography, and architecture.

Technology Education courses can help fulfill the Math/Science/Technology graduation requirement.

Recommended Sequence for Technology Education Courses

Recommended Sequence for Technology Education in Engineering & Drafting		
<i>Introductory</i>	<i>Intermediate</i>	<i>Advanced</i>

0710 - Introduction to Engineering	0743 - Materials Engineering & Fabrication* 0761 - Principles of Computer Aided Design	0762 - Architectural Engineering & Drafting 0769 - Mechanical Engineering & Drafting 0750 - Advanced Materials Engineering*
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Introductory & Intermediate Courses: Students can take any Introductory *or* Intermediate course as an elective.

Advanced Courses: Students can take an advanced course as an elective only if they have met the prerequisites.

** A lab fee is required for these courses.*

Technology Education in Engineering and Drafting Offerings

0743 MATERIALS ENGINEERING & FABRICATION*

Offered in grades 9-12 1 Credit
Class meets 6 periods per cycle, all year
Requirements: None

Materials Engineering & Fabrication is a fun and highly-engaging technology education class centered on making things and understanding the qualities and characteristics of the materials being used. You will use wood, metal, plastics, glass, and composites to produce a wide variety of items. These hands-on products will teach you the engineering design process, along with things such as molding, bending, milling, making precise cuts, turning, and applying finishes. You will work individually and cooperatively with other classmates during the year. This class is an excellent choice if you are contemplating a career as a materials engineer, manufacturing technician, plant manager, construction or related technical professional or simply enjoy the creative process of making things!

0750 ADVANCED MATERIALS ENGINEERING*

Offered in grades 10-12 0.5 credits
Class meets 6 periods per cycle for 1 semester
Requirement: Materials Engineering & Fabrication

Advanced Materials Engineering is a fun and highly-engaging technology education class centered on making things with mastery and fine craftsmanship. A deeper look into the properties of the materials and how those properties can affect the durability and longevity of a product. You will use wood, metal, plastics, glass, and composites to produce a wide variety of more complex items. These hands-on products will teach you the engineering design process, along with things such as, milling, lathing, cabinet making, furniture making , applying professional grade finishes and other projects that focus on higher order thinking. You will work individually and cooperatively with other classmates during the duration of the course. This class is an excellent choice if you want to expand your knowledge and gain more skills from the introductory course.

0710 INTRODUCTION TO ENGINEERING

Offered in grades 9-12 0.5 credits
Class meets 6 periods per cycle for 1 semester *or* 3 periods per cycle for 1 year.

Requirements: None

If you are interested in a career as an engineer or a related technical profession this course may be for you. This Introduction to Engineering course focuses on a basic understanding of the three major fields found in engineering, which are civil, mechanical and electrical. Students learn through hands-on projects and the engineering design process. Students will develop problem-solving skills and apply their knowledge to create projects while applying engineering standards and sharing their findings with their peers. Students will use industry standard computer software, along with 3D Printers, CAD, hand tools and power tools to help design solutions to solve proposed problems. This course will have opportunities for engineers and other similar professionals to speak to students in the class. There will be many opportunities for students to participate in field trips throughout the course to view engineering in action found in our community and through out the area.

0761 PRINCIPLES OF COMPUTER AIDED DRAFTING

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Do you think a career as an architect, designer, draftsman, engineer, or related technical professional is for you? If so, then this course is a must. Students will begin with technical sketching and board drawing using paper and rulers. As the course evolves students will explore industry standard software used to design and model objects created for mass production has been designed and manufactured according to a precise set of detailed drawings, or blueprints. Skills learned in drafting will enable students to design, invent, read, and interpret drawings of others. Sound mechanical design and proper terminology will be utilized throughout. Students will be using computer based software, such as AutoCad and Inventor to complete projects. Students will create working drawings from their designs. This course is vital to future success in the engineering, or architectural, and graphic design fields. Students will utilize state of the art software to model designs in 2D, 3D and 3D printing.

0762 ARCHITECTURAL ENGINEERING & DRAFTING

Offered in grades 10-12 0.5 credit

Class meets 6 periods per cycle, 1 semester

Requirements: Principles of Computer Aided Drafting or Introduction to Engineering

This course is designed for students considering a career as an architect, designer, draftsman, engineer, or related technical professional. This course will be a continuation of Principles of Computer Aided Drafting and Introduction to Engineering that focuses on structural and architectural aspects in engineering. There will be an emphasis on drafting standards and formal presentations, along with creating working blueprint drawings. Students will complete multiple projects independently or collaboratively following the engineering design process. The students will also get to work hands-on with residential home construction aspects and a large scale truss bridge. Students will build small scale and full scale models that replicate the blueprints made in class and utilize 3D printers.

0769 MECHANICAL ENGINEERING & DRAFTING

Offered in grades 10-12 0.5 credits

Class meets 6 periods per cycle, 1 semester

Requirements: Principles of Computer Aided Drafting or Intro to Engineering

This course is designed for students considering a career as a mechanical engineer or related technical profession. This course will be a continuation of Principles of Computer Aided Drafting and Introduction to engineering that focuses on mechanical aspects in engineering. Students will work collaboratively and individually in the completion of multiple projects found in the course. Devices and equipment such as 3D printers, CNC Machines and power tools will be utilized in this class. Software such as Autodesk Inventor and AutoCAD will be used to create models and blueprints. Students will also get to work hands-on with small engines to determine how carburetors, pistons, valves, spark plugs and the rest of the engine parts work to create a working engine.

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Telecommunications Offerings

2300 INTRO TO TELEVISION BROADCASTING & VIDEO EDITING

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 4 after-school events is required.

Students will learn the basics of producing quality video. Studio production techniques including camera operation, audio, lighting, composition, and script writing will be covered. Video camera use and basic video editing will be explored as well. Students are expected to be in front of the camera as well as behind it in the production of independent and small group projects each quarter.

2301 CREATING VIDEO NEWS REPORTS & VIDEO COMMERCIALS

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 4 after-school events is required.

Recommendation: An 80% or better grade in Intro to Broadcasting and teacher recommendation.

Two main objectives will pervade this course: news reporting and commercial creation. Students will be expected to be on location at a minimum of four high school events to interview and film during the semester. Classroom time will be dedicated to post-production work: editing and other broadcast preparations. Students will also be expected to create promotional videos/commercials for high school events and/or activities. News reports, as well as commercials, will be broadcast on the Warrior News and may become a part of the annual year in review video.

2302 VIDEO YEARBOOK & THE WARRIOR NEWS

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 4 after-school events is required.

Recommendation: An 80% or better grade in Intro to Television Broadcasting and teacher recommendation.

This course is designed for the student with a serious interest in television production and electronic news gathering as well as an interest in highlighting, narrating and editing the year's stories and events. Those stories and events include sports matches, homecoming, music concerts, and auditorium productions such as the Talent Show, Mr. Methacton and the fall and spring plays. Acting as journalists, students will be expected to film and interview on location at a number of these events as well. An understanding of television studio production, editing techniques, graphics, and camcorder use is required. Students are expected to be available before and/or after school, and to be self-motivated.

2303 "LIGHTS, CAMERA, ACTION" -WRITING AND PRODUCING FILM

Offered in grades 10-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording after-school events may be required.

Recommendation: An 80% or better grade in Intro to Television Broadcasting and teacher recommendation.

Students will complete a number of projects in this course, the culmination of which will be a five to ten-minute film to be shown at the annual film festival. Students must collaborate to enter a film into a national contest as well. Homework assignments include meeting with your production team to film. Students will be individually assessed on their ability to write scripts, storyboard, write film treatments, direct, film and edit. Other assessments may be based on casting and acting. Production teams will be evaluated on their ability to meet deadlines and to work cooperatively.

Technology and Career Initiatives

The proper understanding and use of technology is a major and necessary goal for all Methacton students as we continue to see great changes in our homes and the workplace. Courses across the curriculum will include varying degrees of technology competency, acquisition and training. Courses emphasizing technology are listed below, initially by department and then by career choice. Use this information to aid schedule development over your high school years.

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STEM Career Path Listing:

Architect

Principles of Computer Aided Drafting	(Tech Ed)
Introduction to Engineering	(Tech Ed)
Materials Engineering & Fabrication	(Tech Ed)
Architectural Engineering & Drafting	(Tech Ed)
Advanced Materials Engineering	(Tech Ed)
Automated Accounting	(Business)
Introduction to Business	(Business)
Entrepreneurship	(Business)
Business Law	(Business)

Communication

Intro to Television Broadcasting & Video Editing	(Tech Ed)
Creating Video News Reporting & Video Commercial	(Tech Ed)
Video Yearbook & The Warrior News	(Tech Ed)
“Lights, Camera, Action” - Writing and Producing Film	(Tech Ed)
Introduction to Engineering	(Tech Ed)
Marketing	(Business)
Automated Accounting	(Business)
Introduction to Business	(Business)
Entrepreneurship	(Business)
Business Law	(Business)

Journalism/Newspaper Yearbook	(English) (Special Programs)
<i>Computer Information/Programming</i> Business Law	(Business)
<i>Engineer</i>	
Introduction to Engineering	(Tech Ed)
Principles of Computer Aided Drafting	(Tech Ed)
Materials Engineering & Fabrication	(Tech Ed)
Advanced Materials Engineering	(Tech Ed)
Mechanical Engineering & Drafting	(Tech Ed)
Architectural Engineering & Drafting	(Tech Ed)
Automated Accounting	(Business)
Introduction to Business	(Business)
Entrepreneurship	(Business)
Business Law	(Business)

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World Languages

The World Language Program suggests that students study a language for several years, allowing for a progression toward fluency through reading, writing, listening, and - most importantly - speaking activities. Being able to communicate in a second language and being culturally aware provide a competitive edge in career choices for the 21st century. To further prepare for a global market, the World Language Department encourages students to study more than one language.

All World Language courses offer a variety of resources - such as on-line components, authentic reading and listening material, textbook and workbook activities and exercises - in order to meet the varied learning styles and abilities. **Workbooks at the high school level may be purchased, or otherwise borrowed at no cost if returned unmarked and in good condition at the end of the school year.**

Honors Requirements - 92% average required on assessments from the previous year to enter the Honors Program for the first time. An 85% average required to remain in the Honors Program

German

0300 GERMAN 1

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle all year

This course uses workbooks that can be purchased or borrowed.

This course is a communication course and uses the *Komm mit!* textbook series. Students learn basic vocabulary and simple sentence structures with emphasis on pronunciation and communication. Cultural instruction on family life, geography, music, holiday celebration and the German school system is included. Spoken, written and creative work is stressed and supplemented with interesting CDs, videos and movies. In addition, each chapter is supplemented with authentic cultural and internet readings that allow the students to practice their reading, writing, listening, and speaking skills.

0301 GERMAN 2

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% for each marking period as well as the final average in German 1

This course uses workbooks that can be purchased or borrowed.

This course is a combination of the grammar and vocabulary building of German I, and is a continuation of the textbook series *Komm Mit*. Realistic dialogs, communicative activities and listening/written activities give the student an opportunity to learn and practice the language and culture of Germany. Each chapter of the text is supplemented with authentic internet readings.

0306 GERMAN 2 HONORS

Offered in grades 9, 10, 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 92% average in assessments in German 1, with teacher recommendation

This course uses workbooks that can be purchased or borrowed.

This course is offered to students who have successfully completed German 1 and who demonstrate strong communicative skills. Students will follow the German 2 curriculum but will have the opportunity to gain a higher level of reading comprehension and analysis skills, and to develop greater writing and speaking adeptness via enrichment activities. Students will follow the German 2 curriculum by using the textbook series *Komm Mit* for vocabulary, grammar, and cultural activities, as well as using the internet for additional authentic reading and information.

0302 GERMAN 3

Offered in grades 10-12 1.0 Credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in German 2

This course uses workbooks that can be purchased or borrowed.

This course uses the text *Komm Mit* as a framework. After mastering the literary past tense, additional forms of reading are used, including short stories, magazines, newspapers, and conversational texts. Construction of complex sentence structure is introduced in order to aid the students' comprehension of German. Each chapter of the text is supplemented with authentic internet readings.

0307 GERMAN 3 HONORS Offered in grades 10, 11, 12 1.0 credit

Class meets 6 periods per cycle, all year.

Requirement: 92% average in assessments in German 2, with teacher recommendation

This course uses workbooks that can be purchased or borrowed.

This course is offered to students who have successfully completed German 2 and who demonstrate strong communicative skills. Students will follow the German 3 curriculum but will have the opportunity to gain a higher level of reading comprehension and analysis skills, and to develop greater writing and speaking adeptness via enrichment activities. Students will follow the German 3 curriculum by using the textbook series *Komm Mit* for vocabulary, grammar, and cultural activities, as well as using the internet for additional authentic reading and information.

0303 GERMAN 4

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in German 3

This course uses workbooks that can be purchased or borrowed.

This course will enable the advanced students to increase their knowledge of vocabulary and complex sentence structure for actual application in reading literature, magazines, newspapers, and listening to videos, television programs, and cassettes. Students use the textbook series *Komm Mit* for vocabulary, grammar, and cultural activities, as well as using the internet for additional authentic reading and information.

0308 GERMAN 4 HONORS

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 90% average in German 3, with teacher recommendation

This course uses workbooks that can be purchased or borrowed.

This course is offered for students who have successfully completed German 3 and who demonstrate strong communicative skills. Students will follow the German 4 curriculum but will have the opportunity to gain a higher level of reading comprehension and analysis skills, and to develop greater writing and speaking adeptness via enrichment activities. Students will follow the German 4 curriculum by using the textbook series *Komm Mit* for vocabulary, grammar, and cultural activities, as well as using the internet for additional authentic reading and information.

0309 GERMAN 5 HONORS

Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 90% average in German 4

This course uses workbooks that can be purchased or borrowed.

This course is appropriate for students who have successfully completed German 4 and who continue to demonstrate strong communicative skills. Also based on the communicative text, *Komm Mit*, it is an enriched version of the regular level 5 curriculum and emphasizes additional reading, writing, listening, speaking, and Internet activities. The class studies the history and literature of Germany. Oral proficiency is stressed in discussions of daily life, politics, and current events. Additional readings are taken from other sources, including fairy tales, novels, and plays.

French

0310 FRENCH 1

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

This course is an introduction and study of basic grammar points, culture and vocabulary are presented through themed lessons that simulate real life events. Students are offered ample opportunities to practice French through cultural readings, writing exercises, speaking, and listening activities. An array of website activities, allows students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills - a major emphasis of the program.

0311 FRENCH 2

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: French 1 - 70% for each marking period as well as the final average in French 1

This course is also based on the communicative text *Bon Voyage!* and is a continuation of the Level 1 textbook. It continues to build new vocabulary and grammatical structures onto students' prior knowledge base. The text's ancillary material creates a large amount of learning variation through reading, writing, speaking, and listening activities. DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0312 FRENCH 2 HONORS

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 92% average required on assessments from the previous year in French 1

This course is appropriate for students who have exhibited a strong aptitude for the language at the French 1 Level. Also based on the communicative text, *Bon Voyage!* Level 1, it is an accelerated and enriched version that has greater emphasis on oral and written production as well as literary and oral activities. The text's ancillary material creates a large amount learning variation through reading, writing, speaking, and listening activities, DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0313 FRENCH 3

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in French 2

This course is based on the communicative text *Bon Voyage!* Level 2. It continues to build new vocabulary and grammatical structures onto students' prior knowledge base. The text's ancillary material creates a large amount of learning variation through reading, writing, speaking, and listening activities. DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0316 FRENCH 3 HONORS

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement; 85% in French 2 Honors

This course is appropriate for students who have successfully completed French 2 Honors and who continue to demonstrate strong communicative skills. Also based on the communicative text *Bon Voyage!* Level 2, it is an accelerated and enriched version that has greater emphasis on oral and written production as well as literary and oral activities. The text's ancillary material creates a large amount of learning variation through reading, writing, speaking, and listening activities. DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0314 FRENCH 4

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in French 3

This course is also based on the communicative text, *Bon Voyage!* and is a continuation of the Level 2 textbook. It continues to build new vocabulary and grammatical structures onto students' prior knowledge base. French 4 students gain a higher level of reading comprehension and analysis skills and they develop greater writing adeptness. The text's ancillary material creates a large amount of learning variation through reading, writing, speaking, and listening activities. DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0317 FRENCH 4 HONORS

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 85% in French 3 Honors

This course is appropriate for students who have successfully completed French 3 Honors and who continue to demonstrate strong communicative skills. Also based on the communicative text, *Bon voyage!* Level 2, it is an accelerated and enriched version of the regular level 4 curriculum that has greater emphasis on oral & written production as well as literary & aural activities. French 4 Honors students gain a higher level of reading comprehension and analysis skills, and they develop greater writing adeptness. The text's ancillary material creates a large amount of learning variation through reading, writing, speaking, and listening activities. DVD chapter clips, National Geographic Society panoramas, cultural readings, online website activities, situation cards, and colorful photos allow students to virtually tour and experience the diversity of the Francophone world. Students are exposed frequently to native speaking and are offered many opportunities to use their speaking skills.

0315 FRENCH 5

Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in French 4

This course is based on the text *Bon Voyage!* Level 3. Oral proficiency and listening skills are stressed in daily conversation sessions and discussions of current events. *La Parure* by Maupassant and *Le Petit Prince* by St. Exupéry have been integrated to improve reading skills and cultural understandings. Culture/current events are explored through authentic readings in French from newspapers such as *Le Monde*.

+1995 ADVANCED PLACEMENT FRENCH LANGUAGE AND CULTURE

Offered in Grade 12 1.2 credit

Class meets 6 periods per cycle, all year

Required: 85% in French 4 Honors

The Advanced Placement French Language and Culture course is rigorous. It focuses on the three modes of communication: Interpersonal, Interpretive, and Presentational. Taught in the target language, students will be given ample opportunities to improve their fluency and accuracy in language use, and to expand their comprehension of cultural perspectives and comparisons. This standards-based course is approximately equivalent to an upper-intermediate college or university French level, and is designed to prepare students for the AP French exam in May. Final project will be reading and analyzing *Le Petit Prince* by Saint Exupéry. Summer assignments are required.

Spanish

0330 SPANISH 1

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

This course uses workbooks that can be purchased or borrowed.

This course is based on a communicative approach. The textbook series *¡Asi se dice!*, is the student's passport to proficiency. Students are shown how to use language in a cultural context and are drawn into the Spanish-speaking world. The program features a wealth of motivational instruction from the text to the accompanying ancillary materials. The program's integrated approach to language-learning develops students' listening, reading, writing, and speaking skills with a wide variety of activities and projects as well as interactive technology. The publishing company also offers a Website designed to help students expand their language skills with grammar, vocabulary, and culture practice for each chapter.

0331 SPANISH 2

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% per marking period and final course average in Spanish 1

This course uses workbooks that can be purchased or borrowed.

This course is an extension of the Level I program. It begins with material from the Level I textbook, and continues with a wealth of motivational instruction from the activities in the *¡Asi se dice!* Level II textbook and accompanying ancillary materials. The program's integrated approach to language learning develops students' listening, reading, writing, and speaking skills with a wide variety of activities and projects as well as interactive technology. The website is also available for this level to help students expand their language skills with grammar, vocabulary, and culture practice by chapter.

0332 SPANISH 2 HONORS

Offered in grades 9-12 1.0 credit

Class meets 6 periods per cycle, all year

Required: 92% average in the area of Assessments in Spanish

This course uses workbooks that can be purchased or borrowed.

The Spanish II Honors program is designed for the student who has demonstrated a strong aptitude for foreign language in the first year of study. The curriculum for Spanish 2 Honors program is primarily based on the second book *¡Asi se dice!* series and is both accelerated and enriched. The language continues to be taught in a cultural context employing all of the motivational ancillary materials with even greater emphasis on oral proficiency, reading, and writing skills. Successful completion of this course is a prerequisite to continue in future honors Spanish language classes.

0333 SPANISH 3

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in Spanish 2

This course uses workbooks that can be purchased or borrowed.

This course continues to use the *¡Asi se dice!* textbook series as a major learning resource, and maintains the communicative approach begun in levels 1 and 2. Students continue to use the language in a cultural context as they are drawn into the Spanish-speaking world. Featuring a wealth of motivational ancillary materials, the program integrates listening, speaking, reading, and writing skills with a wide variety of activities and projects as well as interactive technology. The website continues to help students expand their language skills with

grammar, vocabulary, and culture practice for each chapter.

0339 SPANISH 3 HONORS

Offered in grades 10-12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 85% in Spanish 2 Honors

This course uses workbooks that can be purchased or borrowed.

This course is designed for students who have completed Spanish 2 Honors and who have continued to demonstrate strong communicative skills. The Spanish 3 Honors curriculum is both accelerated and enriched, and is based on second and third levels of the *¡Así se dice!* series. All the components of the regular curriculum remain in place, but the honors curriculum progresses at a faster pace with the goal of even greater competency in all aspects of language acquisition and proficiency. Additional ancillary materials further enhance this course.

0334 SPANISH 4

Offered in grades 11,12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 75% average in Spanish 3, plus teacher recommendation

This course uses workbooks that can be purchased or borrowed.

This course continues with the *¡Así se dice!* textbook series as a major learning resource which strives to develop linguistic proficiency and cultural sensitivity by interweaving language and culture. The focus of using language in an authentic and cultural context is first and foremost. Through its wealth of ancillary materials, the program promotes listening, speaking, reading, and writing skills with a large array of activities and interactive technology. The textbook website continues to offer support in practicing vocabulary, grammar, and cultural concepts for each chapter.

0340 SPANISH 4 HONORS

Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 85% in Spanish 3 Honors

This course uses workbooks that can be purchased or borrowed.

This course, continuing with the *¡Así se dice!* textbook series. It strives to develop linguistic proficiency and cultural sensitivity by interweaving language and culture. The focus of using language in an authentic and cultural context is first and foremost. Through its wealth of ancillary materials, the program promotes listening, speaking, reading, and writing skills with a large array of activities and interactive technology. The textbook website continues to offer support in practicing vocabulary, grammar, and cultural concepts for each chapter. The delivery of the curriculum is at a faster pace with the goal of greater competency in all aspects of language acquisition and proficiency. Additional ancillary materials further enhance this course. Students who successfully complete Spanish 4 Honors may continue to AP Spanish or Spanish 5.

0335 SPANISH 5

Offered in grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 70% average in Spanish 4 or Spanish 4 Honors

This course uses workbooks that can be purchased or borrowed.

This course continues with the *¡Así se dice!* series as its primary resource. Its goal is to continue the development linguistic proficiency and cultural sensitivity by interweaving language and culture. The focus of using language in an authentic and cultural context is first and foremost. Students will learn about history, literature, and current events using the Spanish language as the main means of communication.

+1994 ADVANCED PLACEMENT SPANISH LANGUAGE AND CULTURE

Offered in Grade 12 1.0 credit

Class meets 6 periods per cycle, all year

Requirement: 85% in Spanish 4 Honors

This course uses a workbook that can be purchased or borrowed. A textbook site licence must be purchased.

The Advanced Placement Spanish Language and Culture course is rigorous and focuses on the three modes of communication: Interpersonal, Interpretive, and Presentational. This standards-based course strives to promote both fluency and accuracy in language use and cultural knowledge and appreciation. It does not overemphasize grammatical accuracy at the expense of communication. Summer assignments will be given. This course, taught in the target language, is approximately equivalent to an upper-intermediate college or university Spanish level, and is designed to prepare students for the AP Spanish exam in May.

Special Programs

Yearbook

0185 YEARBOOK

Offered in grades 10-12 1.0 credit

Classes meet 6 periods per cycle, all year (this course also meets in a special homeroom)

Yearbook is a comprehensive course covering the basic processes of producing a Yearbook. The main work areas are in layout preparation, information gathering and journalistic reporting, photo scheduling and processing, financing, and distribution. The *Methactonian* itself is the product of the course. Prior knowledge of Photoshop and InDesign is helpful.

Pre-Career Activity

Offered in grade 12

1070 semester 1 .5 credits

1072 semester 2 .5 credits

The purpose of this program is for students to gain first-hand experience in a career that requires education after high school. Participants are to line up their own contacts except for those interested in the field of education. Students interested in pursuing an educational pre-career placement within the Methacton School District need to contact Mrs. Hartson, in the Counseling Department, by April 1 of their junior year to make proper arrangements. All other pre-career applications must be completed by May 1 of the student's junior year. Students must have parental consent as well as provide their own transportation and expenses for this activity. No compensation may be paid to the student. Released class time will vary according to the activity and courses the student has selected during their senior year. Confirmation of this program will not occur until all schedules are set during the summer months. A quarterly journal indicating the hours spent and activities performed will be required once the program begins.

1071 Mentorship Program

Offered in grades 10-11 .25 credit/20 hours Pass/Fail

Students will participate in a work-based learning opportunity with community businesses under the direction of a company mentor. The goal of this twenty-hour, non-paid work experience is to gain practical workplace skills and knowledge in an environment that complements academic coursework with career goals, through meaningful engagement in the workplace. This experience will increase career readiness skills and help with career planning. Students are responsible for finding a mentorship site in conjunction with the Career Counselor

and providing their own transportation.

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Gifted Seminar program

The Methacton High School Gifted Seminar program is designed to help academically talented or gifted students realize the maximum potential of their talents. It also provides for the identification and exploration of various PA Dept. of Education provisions.

Gifted education supports and services are provided when data indicate a need for specially designed instruction to meet the strengths of students identified as mentally gifted. These specially designed supports and services are identified annually in the Gifted Individualized Education Plan (GIEP) through collaboration by the GIEP team. These supports and services are provided as enrichment, acceleration or a combination of both, when determined appropriate by the GIEP team, to help students make meaningful progress towards annual academic goals that are aligned to Pennsylvania's Core Standards. Students receive specially designed instruction across the school day, both in Academic Seminar and in the general education classroom. Academic Seminar is one enrichment option available to students identified as mentally gifted when determined appropriate by GIEP teams.

Before entering the program, each student must meet eligibility requirements as established by the Commonwealth of Pennsylvania and the Methacton School District. A gifted individual education program (GIEP) is written for each student. Students may take any seminar course without having taken the preceding year's class.

The Gifted Seminar classes can be cascaded, which allows them to be scheduled uniquely for students with open periods in their schedule. Additionally, Gifted Seminar Classes do not have an impact on the 7 credit maximum credit load for GIEP students.

5013 GIFTED SEMINAR 1

Offered in grade 9

Class meets 3 periods per cycle, all year .5 credit

In an enriched atmosphere, ninth grade students explore their interests through research and investigation, while concurrently evaluating the contributions of great thinkers over time. Such investigation allows for students to cultivate a more in-depth understanding of their own cognitive abilities. Critical speaking, critical writing and individualized projects are used to enhance student strengths. Students are challenged to develop research, presentation, and active listening skills. A variety of articles and readings are used along with programming such as TED Talks to increase student engagement. Individualized projects focus on student areas of interest.

5014 GIFTED SEMINAR 2

Offered in grade 10

Class meets 3 periods per cycle, all year .5 credit

Students shall continue to strengthen their higher order thinking skills through the study of cutting-edge innovations and innovators in multiple disciplines, on a global scale. Students' writing, speaking, and thinking skills will develop through research-based products, with consideration of critical analysis of behavior, society

and the global condition. Individual research projects will focus on areas of student interests. As the year progresses, students will commence the beginning processes of career investigation.

5015 GIFTED SEMINAR 3

Offered in grade 11

Class meets 3 periods per cycle, all year .5 credit

Eleventh grade seminar focuses on career and college exploration. Students will complete and present an in-depth career investigation in a field of interest. Subsequently, students will utilize classroom and online resources to search for college programs that support career interests. Students will engage in activities such as preparation of college essay topics, interview techniques, continued updating of resumes, and investigation of scholarship opportunities. Finally, students will develop and strengthen interpersonal, oral communication, leadership, and risk-taking skills as part of these pre-college and pre-career situations.

5016 GIFTED SEMINAR 4

Offered in grade 12

Class meets 3 periods per cycle, all year .5 credits

The 12th grade seminar course revolves around students completing individualized, independent projects that have been selected with care in support of student intellectual and career interests, mentored and monitored by the seminar teacher. Students will create, develop and complete an independent project that furthers skills, goals, interests, and career path. As well, students will develop related skills including the creation of a viable long-term project, organizational skills, time management, flexibility, communication skills where applicable, divergent and critical thinking, project management skills, and self-assessment skills.

Community Service Learning Program

***Students do not select Community Service as a course; rather, they should complete hours of service in thirty hour increments and turn in all completed log forms to their school counselor. Credit is awarded throughout the year and will appear on the transcript.**

Offered in grades 9-12 .25 credits/30 hours PASS/FAIL

Many students in the Methacton School District are currently performing service in their community and schools. The Community Service Program was created as a way to reward students who are making a difference and becoming active participants in our democratic society. Through their service, they are learning more about themselves, their community, and exploring future careers (service learning). Students receive .25 credits for every 30 hours of documented service, and there is no limit to the number of hours, or credit, each year. Service hours are from end of one school year until the end of the next. This credit helps them to meet elective credit for graduation. The Coordinator will meet with the student to explain the program, suggest service opportunities, and to explain the reflection component.

Dual Enrollment Programs

Students may receive both college and high school credit for the successful completion of select Montgomery County Community College (MCCC) courses. **Students are subject to additional costs for books, and registration fees are incurred by taking these courses.** The availability of these courses will depend on student interest, as no course will run with fewer than 10 students registering and total available seats. These courses will receive a weighted value of 1.1 in the calculation of Grade Point Average and Class Rank. **MHS advises that each student research the schools he or she is interested in attending to verify the transferability of Methacton's Dual Enrollment, or MCCC course credits.**

For dual credit classes taught by College faculty, students will be charged the prevailing rate for tuition and fees. The charge in 2018-19 was \$191/credit (\$573 for a three credit class plus the cost of the text). **An increase in the charge per credit is expected for 2019-20, but is not yet available.** MCCC will bill the student's family directly and these fees are payable directly to MCCC. Students are also responsible for purchasing the textbook for the class.

For dual credit classes taught by approved high school teachers, students will be charged the cost of only one credit for a three or four credit course (this only applies to DE CHE 121 & DE ENG 238). The charge in 2018-19 was \$191/ for the course (plus the cost of the text). **An increase in the charge per credit is expected for 2019-20, but is not yet available.** These fees are payable directly to MCCC. Students are also responsible for purchasing the textbook for the class.

*DE CHE 121 GENERAL CHEMISTRY I

4 MCCC Credits 1.2 High School Credits

Taught on-site at the High School Enrollment has a limited number of seats and is capped.

Offered in grades 10-11

Class meets 7 periods per cycle, all year

Requirements: 82% or better in Academic Biology, Academic Algebra I and Academic Geometry, or a 72% in Honors levels of these courses.

Students must purchase their textbook from MCCC's campus bookstore (approx. \$150 new and \$95 used).

General Chemistry I (CHE 121) is a Montgomery County Community College (MCCC) chemistry course designed to acquaint liberal arts and nursing majors with certain fundamental facts, principles, and techniques of chemistry with a view toward their application in modern life. Upon completion of the course with at least a 70% average, you will earn 4 college credits (3 lecture, 1 lab) in chemistry through MCCC. These credits are considered "highly transferrable" to many 4-year universities as long as you are **not majoring in a science or engineering**. Passing this course will also satisfy one (1) of the three (3) science credits required for Methacton graduation.

The rigor of this course will be greater than Methacton's Academic Chemistry course, but not as rigorous as Methacton's Honors Chemistry course.

+ DE CHI 101 ELEMENTARY CHINESE

3 MCCC Credits and .5 High School Credits

Elementary Mandarin Chinese I is an introduction to the Mandarin language. Students will learn to master basic communicative situations in Mandarin Chinese at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Mandarin Chinese. In addition, students will learn about the various cultures in Mandarin Chinese speaking countries.

+DE MGT 111 PRINCIPLES OF MANAGEMENT

3 MCCC Credits and .5 High School Credits

In addition to building a solid foundation of management fundamentals, this course introduces students to emerging concepts and issues that are shaping the theory and practice of management. Students discuss quality, productivity, customer satisfaction, global management, social responsibility, ethics, social/cultural perspectives and other topics that students will encounter both on the job and in any advanced studies.

+DE MKT 111 PRINCIPLES OF MARKETING

3 MCCC Credits and .5 High School Credits

Students will learn the principles of marketing strategy planning, including target market and marketing mix variables with emphasis on key strategy decisions in each area. This course will explore organizational marketing activities including: consumer behavior, marketing research, social/cultural perspectives, legal and ethical issues and environmental influences. The course will also cover: implementation, control, marketing's link with other functional areas and the challenges and opportunities that exist for marketers.

+DE EDU 100 EDUCATION

3 MCCC Credits and .5 High School Credits for grades 11 and 12

This course is designed to give prospective teachers an introduction to education, including historical, ethical, legal, and theoretical perspectives, cultural influences, as well as classroom management techniques. While in class, students will participate in various instructional strategies both individually and in group settings. The course requires students to complete 20 hours of field experience/observation in an early childhood, elementary, or secondary school setting in order to reflect on present-day practices and the diverse roles and responsibilities of teachers in today's world. This experience will help prospective teachers to confirm their career choice. Students will also apply for all necessary child care background clearances. Students must have a valid driver's license prior to the beginning of the year and have access to transportation to complete the observations.

+DE ITA 101 Elementary Italian 3 MCCC Credits and .5 High School Credits Elementary Italian I is an introduction to the Italian language. Students will learn to master basic communicative situations in Italian at a mid-novice level. The systematic training in speaking, listening, writing, and reading, reinforced by the use of authentic audio and video material, will create competence and confidence in expressing in Italian. In addition, students will learn about the various cultures in Italy.

+DE EDU 210 EDUCATIONAL PSYCHOLOGY

3 MCCC Credits and .5 High School Credits

This course investigates three models (Behavioristic, Humanistic, and Cognitive) of human functioning and selected learning strategies derived from each. In addition, a number of traits and behaviors (e.g. SES, culture, motivation, curiosity, creativity, and intelligence) related to children's learning and cognitive developments are explored.

+ DE ENG 238 LITERARY VISION OF FILM

3 MCCC College Credits and .5 High School Credit

This course focuses on film as a mode of literary expression. After we develop baseline knowledge of the techniques and devices of literature, selected films are viewed and discussed as works of literature. Only films that were created as films - that is, not based on books or works of drama - are considered. This is not a "film" course, and techniques related to film are not studied. MHS course 0121 Introduction to Film is a prerequisite to this course.

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Special Education Programs

The Methacton School District provides special education programs for identified, eligible students. Programs

include adaptations, accommodations, and specially designed instruction in order that students may access the general curriculum. A multi-disciplinary comprehensive evaluation and the development of an individualized education program (IEP) determine student eligibility and need for a special education program. Continuation in special education is determined through reevaluation. It includes input from general and special education staff, review of student progress, standardized testing, and team evaluation.

Emotional support program

The goal of this program is academic remediation and successful adjustment to the high school environment. Specially designed instruction is available in small group instructional settings. Behavioral assessment, planning, and the group process provide emotional and behavioral supports. Adaptations and accommodations may be extended to the general education setting as determined by the student's IEP.

Learning support program

The goal of the learning support program is to meet the academic needs of eligible students. Small group and individual instruction are typical supports. Modifications, adaptations, and accommodations are made to the general curriculum depending upon an individual student's IEP goals and objectives.

Learning support work/study program

The work-study program extends Methacton School District's learning support program with the addition of vocational training, community living instruction, and supervised job placement in the student's junior or senior year.

Advanced Placement Programs

The Advanced Placement (AP) Program provides able, interested students the opportunity for college-level learning and for demonstrating their accomplishment through the Advanced Placement Examinations. These courses are extremely challenging and students can reasonably expect that these studies will not be repeated at college. **Thus, students should carefully select these courses based on their abilities and demonstrated performances. In the 2019-2020 school year, registration for the Advanced Placement Exams will occur in the Fall. This is a change implemented by College Board and is new from past years. As always, payment for the exams will be taken prior to the exam order being placed and will occur in October of 2019.**

Advanced Placement Examinations are offered annually to give high school students opportunities to demonstrate college-level achievement. Students who successfully complete the Advanced Placement exams MAY, but are not guaranteed, to receive the following benefits:

1. Exemption by your college or university from beginning courses and permission to take higher-level courses in certain fields.
2. Tuition savings - up to a year of credit may be given for three or more qualifying Advanced Placement grades.
3. Eligibility for honors and other special programs open to students who have received Advanced Placement recognition.

***We strongly suggest contacting the school(s) you wish to attend to find out if they provide credit for AP.**

Students who elect to take the Advanced Placement Examinations are required to pay the test fee. Our scheduling system makes it possible to schedule only two laboratory courses in a school year. AP Chemistry and AP Physics are mutually restrictive courses, and cannot be scheduled in the same year while maintaining a full course load. Students who are considering scheduling this sequence are strongly encouraged to meet with their counselor.

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Courses

- +1969 AP EUROPEAN HISTORY
- +1970 AP U. S. GOVERNMENT AND POLITICS
- +1972 AP ART HISTORY
- +1973 AP STUDIO ART
- +1974 AP ENGLISH LITERATURE AND COMPOSITION (11)
- +1975 AP ENGLISH LANGUAGE AND COMPOSITION (12)
- +1976 AP PSYCHOLOGY
- +1977 AP UNITED STATES HISTORY
- +1978 AP CALCULUS AB
- +1979 AP ENVIRONMENTAL SCIENCE
- +1980 AP CHEMISTRY
- +1981 AP BIOLOGY
- +1982 AP PHYSICS (CALCULUS BASED)
- +1983 AP CALCULUS BC
- +1985 AP CAPSTONE SEMINAR
- +1986 AP CAPSTONE SEMINAR RESEARCH
- +1991 AP MUSIC THEORY
- +1993 AP STATISTICS
- +1994 AP SPANISH
- +1995 AP FRENCH
- +1997 AP COMPUTER SCIENCE PRINCIPLES
- +1998 AP COMPUTER SCIENCE A

Advanced Placement Tests

Methacton Senior High School participates in a program of College-Level Examinations for Secondary School Students. Over 90% of the nation's colleges give credit and/or advanced placement to students whose AP Examination grades are considered acceptable. Standard AP exam fees will apply. Further information on tests can be secured in Dr. Kochenour's office.

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NORTH MONTCO TECHNICAL CAREER CENTER INFORMATION

North Montco Technical Career Center (NMTCC) offers 22 programs within 8 cluster areas including: Construction Trades, Cosmetology, Culinary Arts, Engineering/Manufacturing, Horticulture, Health & Human Services, Power & Transportation and Visual Communications. The school serves approximately 1000 students from 5 surrounding school districts. Students can attend the school as either part time or full time students. In addition to technical training, NMTCC provides academic courses to the full time students within all eight

clusters.

College credits are awarded for many of NMTCC's programs through dual enrollment/articulation agreements with post-secondary institutions upon successful completion of the program.

CONSTRUCTION TRADES CLUSTER

Construction Carpentry

The Construction Carpentry program covers instruction in safe and proper use of hand and power tools, drywall work, counter tops, finish carpentry, as well as building wood frame structures such as rough framing, roofing, and siding. Students will be required to purchase items for this program at an approximate cost of \$255.

Electrical Trades

Experienced electricians are in serious demand. Students in the Electrical Trades program learn about residential and commercial/industrial wiring and low-voltage systems, involving communication voice data and security systems. The program consists of instruction in electrical AC-DC theory, National Electric Code, wiring methods and industrial applications. Students will be required to purchase items for this program at an approximate cost of \$150.

Heating, Ventilation and Air Conditioning (HVAC)

The HVAC program consists of basic to advanced instruction in both the installation and servicing of residential systems. Students are trained in electrical principles, oil and gas heating, air conditioning, heat pumps and basic refrigeration systems. NMTCC's HVAC program has been granted accreditation by HVAC Excellence. Students will be required to purchase items for this program at an approximate cost of \$200

COSMETOLOGY CLUSTER

Cosmetology students learn the competencies and skills needed to pass the Pennsylvania State Board of Cosmetology practical and written licensing exams through a program that meets the state-required hours of instruction. Students must complete 1250 hours of instruction, with at least a 75% grade average, before they are eligible to take the State Board of Cosmetology license examination. The program covers instruction in a) cosmetology (hair care), b) esthetics (skin care and make-up), c) nail technology, and d) salon management. Students apply theory and skills and strengthen competencies through hands-on experience including a clinic open to the community. Students will be required to purchase items for this program at an approximate cost of \$500.

Culinary Arts Cluster

From prep cook to executive chef, the culinary industry offers a world of career possibilities. NMTCC's Culinary Arts program is nationally certified as an American Culinary Federation Education Foundation (ACFEF) secondary certified program. Learning takes place in the classroom, kitchen, bakery and restaurant. After completing a one year rotation in the Culinary Arts Program, students have the opportunity to specialize in one of three areas: baking and pastry art, culinary chef, institutional (large quantity) food preparation. Students completing the program may enter the workforce or continue their education in college. Students will be required to purchase items for this program at an approximate cost of \$100-250 depending on specialization.

ENGINEERING/MANUFACTURING CLUSTER

Drafting and Design

Students in the Drafting and Design program work with industry-standard software, computers and equipment to prepare for careers in drafting. Throughout the training at NMTCC, students will gradually master techniques in Drafting and Design utilizing ANSI/ASME standards. The course will start with Basic Drafting that includes Orthographic Projection, Auxiliary Views, Section Views, Dimensioning, Fasteners, Axonometric, and other basic drafting skills and will continue with learning how to use many of the latest software packages. These include the latest versions of AutoCAD, Architectural Desktop, Inventor, 3D Studio, and other related software packages. Students will be required to purchase items for this program at an approximate cost of \$45.

Mechatronics

The Mechatronics program offered at NMTCC provides a synergistic approach to the understanding of the principles in the engineering field. The program focuses on mechatronics engineering technology, which is a multidisciplinary field where workers design, troubleshoot, maintain and repair sophisticated automated equipment through a systems approach. Students will perform activities and obtain fundamental knowledge in the following areas: electrical, electronics, robotics, mechanical systems, fluid power systems, programmable logic controllers, control systems and mechatronics. Engineers and technicians with training in mechatronic systems have the greatest career mobility across technical disciplines. Students will be required to purchase items for this program at an approximate cost of \$25. **In partnership with Reading Area Community College, students can earn up to 16 college credits towards a degree in Mechatronics Engineering Technology for successful completion of their technical course work completed at NMTCC.**

Precision Machining

The Precision Machining Technology course of study is designed to prepare the interested student for varied manufacturing opportunities. The demands for the highly skilled artisan are many. From the Machine Operator to the Toolmaker, from the Computer Numerical Control (CNC) Operator to the CNC Programmer, all start with the experience and training found in our complete precision machining lab.

The program is nationally certified with the National Institute for Metalworking Skills (NIMS). It emphasizes the safe and proper operation of metalworking machine tools such as lathes, milling machines, precision grinders, and drill presses. The course also includes an introduction to layout and blueprint reading and instruction in computer numerical control (CNC) machining. Success in this field requires a strong work discipline, good eyesight, an aptitude for math, sound logic, and manual dexterity. Students will be required to purchase items for this program at an approximate cost of \$100.

Welding & Fabrication

Welding and Fabrication students learn the skills and techniques necessary for success in a career that values well trained, experienced workers. They learn MIG and TIG welding as well as gas welding and about the operation of welding and metal fabrication machinery.

Students will be required to purchase items for this program at an approximate cost of \$275.

Horticulture Cluster

The Horticulture program will provide students with a working knowledge, understanding, and application of skills important to establishing, maintaining, and managing horticulture enterprises. Practical landscape

experience will be gained in planting and maintaining areas of the school campus. Operating a small production greenhouse and a school flower shop will enhance business and managerial skills. Aquaponics has been added to the curriculum. This up and coming industry deals with growing plants without soil and raising fish in a contained area. **Students design arrangements for sale in the school store, and take orders for special events.** Students will be required to purchase items for this program at an approximate cost of \$60.

HEALTH & HUMAN SERVICES CLUSTER

Biotechnology

Biotechnology is a diverse and challenging field with excellent opportunities for career growth in pharmaceutical and biotechnology companies, as well as research. The program introduces students to core competencies and practical applications. Students comply with safety guidelines while learning standard laboratory techniques of microbiology, preparing media and solutions and using laboratory equipment. Specialized training is then provided in cell culture, protein purification, recombinant DNA technology, and forensics. This is a laboratory intensive program that integrates technical competency with employability skills and related academic content.

In partnership with Montgomery County Community College, **a junior/senior course** is available at NMTCC. Students earn **eight college credits** for an introductory survey course in Biotechnology and a laboratory course emphasizing technical skills and instrumentation. The application process includes a personal interview, a visit to the Biotechnology laboratory, a letter of recommendation from a science teacher, and submission of a completed application form with a high school transcript. Acceptance into the program is determined in the spring. Students accepted into the morning session are required to provide their own transportation to NMTCC, since class starts at 7:30 am. Students accepted into the afternoon session are responsible for their transportation. If there are issues with this, please contact your school counselor at Methacton High School.

Prerequisites: Biology and concurrent Chemistry

Students will be required to purchase items for this program at an approximate cost of \$75.

Health Sciences

Health Sciences Technology curriculum focuses on the delivery of quality health care to clients in various settings. It includes hands-on experience at local health care facilities and provides the technical training needed to pursue a healthcare career. Curriculum includes a one-year state-approved nurse aide-training program, which all students are expected to complete after satisfactory mastery of the core skills.

A physical exam, negative tuberculosis test, proof of Hepatitis B vaccination, and a cleared Criminal Record Check must be obtained prior to entrance into the program. These requirements must be fulfilled every year of enrollment. Students will be required to purchase items for this program at an approximate cost of \$200.

Protective Services

Protective Services program will provide students with an experience in the general public service occupation cluster. After covering a broad curriculum, students will specialize in several aspects of emergency medical service, police science, security, firefighting and other related occupational fields. Students are encouraged to pursue post-secondary training for more career opportunities. Community service is also a requirement of this program. A cleared Criminal Record Check **must** be obtained prior to entrance into the program.

In 11th and 12th grade, students have the opportunity to specialize in either law enforcement/criminal justice OR security and loss prevention. Students will be required to purchase items for this program at an approximate cost of \$200.

Allied Health Grade 12

Allied Health is designed for college preparatory students who are interested in pursuing a medical or health science career after high school. The program is unique in that it is based in Abington Lansdale Hospital. Students enrolled in this program will report daily to the hospital where they will receive theoretical and technical instruction. In addition, through a weekly schedule of clinical rotations, students will gain practical experience while working beside the individual professionals in their specific departments. The Allied Health program is a great way for student to test their dreams of becoming health care professionals.

This program will take students into major department of the hospital, such as – Emergency Room, Nursing Care Units, Medical Laboratory, Medical Imaging, Respiratory Care, Pharmacy, Cardiology, Physical Therapy, Intensive Care, and Operating Room.

Criteria for Admission—Students should apply for admission while in 11th grade. Only 12 total students will be accepted into this program each year. GPA, attendance, conduct records, and letters of recommendation are primary considerations for acceptance. Performance in an interview will be evaluated as well. Students must have signed approval from a science teacher, school counselor and parent or guardian. A physical exam, negative two-step tuberculosis skin test, proof of Hepatitis B vaccination, and a cleared criminal record check must be obtained prior to entrance into the program. Students are responsible for providing their own transportation. Students will be required to purchase items for this program at an approximate cost of \$150.

POWER & TRANSPORTATION CLUSTER

Auto Collision Repair

The Auto Collision Repair Program is focused on high tech training necessary to diagnose and repair the finish coatings, cosmetic features, structure, and complex components/systems in today's automobiles. Any student successfully completing this program, or a segment of specialized instruction, can expect to be prepared for employment in this industry, or pursue advanced technical training at the post-secondary level and be ready for Automotive Service Excellence (ASE) certification.

Students will be required to purchase items for this program at an approximate cost of \$100.

Automotive Technology

In accordance with National Automotive Technicians Education Foundation/Institute for Automotive Service Excellence (NATEF/ASE) and AYES standards, the Automotive Technology program provides current curriculum, instructional materials, and equipment that are needed to reinforce knowledge, skills, and attitudes appropriate to industry needs.

Students will be required to purchase items for this program at an approximate cost of \$100.

Diesel Truck Technology

As the trucking industry continues to expand, the demand is growing for mechanics and technicians to repair

and maintain diesel engines. Upon completion of the Diesel Truck Technology program, students may secure employment as entry-level technicians or advance their education and training. This program follows the National Automotive Technicians Education Foundation/Institute for Automotive Service Excellence (NATEF/ASE) standards for Diesel Truck technology.

Students will be required to purchase items for this program at an approximate cost of \$100.

Recreational Power Equipment

From recreational vehicles and equipment such as snowmobiles, jet skis, and motorcycles, to lawn and garden equipment, such as mowers and chain saws, small engines power many machines that make our lives easier and more enjoyable. The Recreational Power Equipment program is the study of “how and why” machinery operates along with the “whys” of machinery failure and the learning of “how to” diagnose the problems and make proper, efficient repairs. Students will be able to specialize in different areas of repairing and maintaining this equipment. Students will be required to purchase items for this program at an approximate cost of \$100.

VISUAL COMMUNICATIONS CLUSTER

Advertising Design

The Advertising Design Program offers instruction encompassing a broad spectrum of art and design related occupations. Students are introduced to the tools and techniques needed to become successful commercial artists. Core curriculum focuses on two-dimensional design, digital imaging, illustration, and the principles of advertising. Hands-on learning will provide students with the background needed to develop a viable portfolio. Students will be required to purchase items for this program at an approximate cost of \$50.

Graphic Arts

The Graphic Arts program offers instruction encompassing a broad spectrum of design and occupations. The major areas of study in the graphic arts program include design and layout, typography, offset printing operation, bindery, document management/quick copy center operations, and Adobe Creative Cloud. Students will be required to purchase items for this program at an approximate cost of \$50.

Internet Technologies

The Internet Technologies program is an instructional program that prepares individuals to apply technical skills in support and design of computer systems and networks. The program includes instruction in website design as well as game and simulation development. The program also provides a technical foundation for college-bound students pursuing a career in information technology and provides the training for students to acquire several industry certifications. The course includes the Oracle and Cisco Academies, which provide training in computer networking, database design, computer system support, computer repair and service, and other IT subjects.

SCHOOL TO CAREER LEARNING PROGRAMS AT NORTH MONTCO TECHNICAL CAREER CENTER:

School-to-career learning programs at NMTCC combine quality education with worksite learning so students are given the opportunity to apply the valuable skills they are learning. The School-to-Career office can assist with creating a resume and developing interviewing skills. This office also provides job posting for students who want to gain real-life, on-the-job experience before graduating from high school. One of NMTCC's

School-to-Career programs may be the opportunity you need to further your career goal.

The programs available to students at NMTCC include:

- internship
- Pennsylvania Youth Apprenticeship Program (PYAP)
- Cooperative Education (Co-Op)

Internship (non-paid)

Internships provide students with the opportunity to spend time at local businesses and non-profit organizations. Internships also provide valuable, real-life experience, build interpersonal and workplace skills and enable students to put classroom theory into practice

Pennsylvania Youth Apprenticeship Program (PYAP)

This employer-driven program offers paid, on-the-job training experience through a partnership with a sponsoring company. Employers participate with school staff to develop and monitor the curriculum and standards. The program is offered to 10th, 11th, and 12th grade students. On the job work experience is designed for 11th and 12th grade students. Students must have successfully completed all major academic subjects and be on grade level to enroll in this program. Students must complete an application and interview process as well as sign a training agreement accepting responsibilities of the position. Academic and technical instruction is delivered at NMTCC in an integrated learning environment as applicable to the youth apprentice's career plan.

Cooperative Education (Co-op)

Students who wish to begin building their resume before they graduate should consider the Cooperative Education program. This paid work experience is designed for seniors enrolled in a NMTCC program who have demonstrated competence in their field and have secured the necessary recommendations. Students who qualify for this program have the opportunity to obtain real work experience and practice the specific skills they have learned.

SOAR – Students Occupationally and Academically Ready

A SOAR program is a Pennsylvania Department of Education approved, Career & Technical Education Program that credits skills and tasks learned at the high school level to a post-secondary (college) degree, diploma or certificate program. SOAR programs prepare today's student for tomorrow's high demand and high wage careers.

To view current advanced credit opportunities articulated with post-secondary institutions, go to Search for Equivalencies under the Search button at www.collegetransfer.net, select PA Bureau of Career and Technical Education at the "From" drop down menu.

Academic Programs

All students who attend NMTCC on a full time basis take their academic courses in the context of their career objective. Health and PE are integrated with the technical curriculum. Resources such as computer interactive instruction and academic support are provided.

Social Studies for 11th and 12th grade (third session) students is offered for students who may need the credits. **Health/Physical Education classes** are offered for students who may need these credits.

Tech Prep

Tech prep is a sequence of academic and technical coursework leading to an Associate's Degree in a technical field. The program focuses on academic and technical preparation that provides for a smooth transition from the secondary program into two or more years of post-secondary education. Through articulation, postsecondary institutions may grant credit for completing college-level learning at NMTCC, which minimizes the need for duplication of course work and a time-shortened track to a degree.

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Please see sample schedules below.

Sample Student Schedules (Underclassmen)

These are only examples. Students are not obligated to take these exact combinations of courses.

Grade 9

0111	Literacy 1	0091	Acad. Eng.	0092	Hon. Eng.	0092	Hon. Eng.
0201	Euro. Studies	0201	Euro. Studies	0202	Soc. Stud. Hon.	1969	AP European
0417	Sec. Conc. Alg	0419	Algebra I	0430	Geometry	0426	Hon. Alg. II/Trig
0505	Environmental	0505	Environmental	0506	Hon. Environmental	0510	Hon. Bio. *
0330	World Lang. 1	03**	World Lang. 2	03**	World Lang. 2 Hon.	0507	Acc. Environmental *
0001	PE YR	0001	PE	0001	PE	03**	World Lang. Hon
	Elective		Electives		Electives	0001 & 0002	PE

Both PE courses (semester 1 course and semester 2 course) are always requested together as a block since students always take both.

Grade 10

0101	Eng. 10	0101	Eng. 10	0107	Eng. 10 Hon.	1985	AP Capstone Seminar
0204	World Cult.	0204	World Cult.	0205	Cult. 10 Hon.	0205	*AP Human Geography
0429	Fund. of Geom.	0430	Geometry	0421	Alg.2/Trig.	0442	Hon. Pre-Calc.
0510	Acad. Bio.	0511	Acad. Bio	0510	Hon. Bio.	0535	Hon. Chem.
0995	Vo-Tech AM	03**	World Lang. 3	03**	Language 3 Hon	03**	World Lang. 3 Hon
1020	V-T Health & PE	0001	PE YR	0001	PE YR	0001	PE YR
		0011	Health	0011	Health	0011	Health
		0860	Cons. Dec.	0802	FACS	0802	FACS
			Electives		Electives		Electives

These are only examples. Students are not obligated to take these exact combinations of courses.

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Sample Student Schedules (Upperclassmen)

Grade 11

These are only examples. Students are not obligated to take these exact combinations of courses.

0102 Acad. Eng. 11 0211 US & PA 0420 Alg. 2 0530 Chem. Com. 0997 Vo-Tech PM 1021 VT Health & PE	0102 Acad. Eng. 11 0211 US & PA 0421 Alg. 2/Trig 0530 Acad. Chem.* 03** World Lang. 4 0011 Health and 0017 PE Electives	0108 Hon. Eng. 11 0212 US&PA Hon. 0441 Pre-Calculus 0535 Hon. Chem.* 03** World Lang. 4 Hon. 0011 Health and 0017 PE Electives	1974 AP Eng. 11 1977 AP US Hist. 1978 AP Calc. AB 0551 Hon. Physics* 03** World Lang. 4 Hon. 0011 Health and 0017 PE AP Chem. or other Electives
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Grade 12

These are only examples. Students are not obligated to take these exact combinations of courses.

0103 Acad. Eng. 12 0251 US Gov.& Econ 0427 Trigonometry 0453 Probability 0545 Oceanography 0997 Vo-Tech PM 1021 VT Health & PE	0103 Acad. Eng. 12 0251 US Gov. & Econ 0441 Pre-Calculus 0550 Acad. Physics* 03** World Lang. 5 001* PE Elective Electives	0109 Hon. Eng. 12 or 0110 English Writing Fellows 0252 Gov. & Econ Hon. 0409 Contemp. Calc. 0551 Hon. Physics* 03** Hon. World Lang.5 001* PE Elective Electives	1975 AP Eng. 12 or 0110 English Writing Fellows 1970 AP Gov. 1983 AP Calc. BC 19** AP Science(s) 1994 AP World Lang. 001* PE Elective Electives
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