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***

<table>
<tr><td colspan="3">Dr. Debra Euker
Principal</td></tr>
<tr><td>John Conran
10th Grade Administrator
12th Grade (Ni - Z)</td><td>Karey Kochenour
11th Grade Administrator
12th Grade (A-Gre)</td><td>Paul Spiewak
9th Grade Administrator
12th Grade (Gro - Ng)</td></tr>
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Director of Activities and Athletics</td><td>Joelle Mensch
Supervisor of Secondary Special Education</td></tr>
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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 2025-2026 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.

Dr. Deb Euker – Principal

Contents

COUNSELING DEPARTMENT

Mr. Peck	A-B	Ext. 25032	Mr. Ruminski	Kj-Nf	Ext. 25028
Ms. Henning	C-Fp	Ext. 25408	Ms. Johns	Ng-Sc	Ext. 25031
Mrs. Langan	Fr-Ki	Ext. 25029	Ms. Wells	Sd-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 available by email 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.

Eighth grade students at Arcola will participate in the course selection process with the assistance of both Arcola and High School Counselors and Administrators.

Current 9th, 10th, and 11th graders will receive a scheduling overview in their Social Studies classes between February 4 and February 6. The Counselors will hold follow up scheduling sessions with students in Grades 9 through 11 between February 19 and February 21. Counselors will hold individual meetings with rising Seniors. These meetings will allow students and their counselor time to discuss their post-secondary plans and look into courses that may assist them with finding their future career path. Parents will be able to see their child's selected courses within their PowerSchool account after the students' scheduling conference. Should parents wish to discuss the selections with the school counselor they may reach out to the counseling office prior to February 28, 2025 for current 9th and 10th grade students and prior to March 7, 2025 for current 8th and 11th grade students. Student course change requests will be due into the respective counseling office by March 9, 2025. This will allow time for the master schedule to be built. No change requests will be permitted after that date, including when schedules are released in August.

Each student should carefully select those subjects that will comprise their 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 prerequisite score to continue in the sequence indicated. The teacher placements reflect current student performance and the expectation of them reaching the prerequisite scores for the next course in the strand. All teacher determined placements in February are subject to reevaluation 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 final course grade that meets or exceeds this prerequisite must contact his or her assigned school counselor and the appropriate academic area Department Coordinator by June 20 to schedule the more challenging course. A waiver form must be submitted as a component of this email communication to the Counselor and Department Coordinator.

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: Mrs. Caitlin Ferenchak
- Business/FCS/Technology: Mr. Chris Lloyd
- English: Mrs. Liza Kernan
- Health/Physical Education Mr. Jeffrey Derstine
- Mathematics: Mrs. Megan Emery
- Music Mrs. Susan Basalik
- Science: Mr. Steven Savitz
- Social Studies: Mr. Adam Sussman
- Special Education: Ms. Niki Brislin
- World Language: Mrs. Christine Hamill

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 whose earned grades fall within three (3) percentage points of the established requirements. The form will be open at the start of the third marking period and should be completed electronically (link below). This form is due to the Department Coordinator no later than one week after the issuance of third marking period report cards (specific date established annually by the school calendar). For **Level Advancement**: Students whose final grade meets the required grade criteria for a higher level course must complete this form to schedule the more academically challenging course. For a **Waiver Request**: Students must complete this form when seeking a waiver to request a course for which the student has not met the prerequisite requirements but whose earned grades fall within three (3) percentage points of the established requirements. This form is due no later than June 20, 2025. Click here to complete the **Level Advancement/Course Request Waiver Form** online (**the form will be active as of May 20, 2025**).

Deadline for Changes

All requests for changes NOT related to level changes in student schedules must be received in writing no later than March 9, 2025. (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/email 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 March 25, 2024, are limited to:

A) Successful completion of summer school, private tutoring.
B) Computer/mechanical/clerical errors.
C) Failure to pass a sequential course.
D) 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 complete letter day cycle (A-F Days) of the school year, the student will carry the grade achieved in the course to the course they pick up in its place. (e.g. 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 two complete letter day cycles (A-F Days) of the school year, dropped courses will result in a Withdrawal Fail (WF/59%). 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 ≥ 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 summer offered date with **no exception**. Failure to score proficient will result in the student having to drop Chemistry to take Biology.

Information about how to accelerate is available online on the MHS website. Acceleration Request Forms are available in the School Counseling Office and must be completed **before April 25, 2025**. 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 two letter day cycles 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 of 59% will be factored into a student's GPA 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.)

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.

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 11:14 am 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' day starts at 7:35am and 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, students in all grades must maintain the minimum six (6) 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

Subject Area	Required Credits
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/ Finance . . ……...	0.25
Electives	4.50
STEM (Science, Technology/Computers, Engineering, or Math)	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/Fulfill Graduation Pathway Requirements**

Descriptions of these graduation requirements follow.

Family and Consumer Science/Finance

The following courses will count toward the FCS/Personal Finance graduation requirement:

- Consumer Finance
- Today's Foods
- Child Development
- Child Development 2
- Textile and Design
- Introduction to Business
- Advanced Personal Finance
- Interior Design, STEM!
- International Cuisine

STEM (Science, Technology/Computers, Engineering, Math) Requirement

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

Photography	Introduction to Computer Science	AP Computer Science A

Graphic Design	Advanced Java Concepts	
Adv. Graphic Design	AP Computer Science Principles	The Warrior News & The Windy Hill
Automated Accounting	Intro to TV Broadcasting, News Writing & Video Editing	Movie Making & Film Festival
Intro to Engineering Design	TV Commercials & News Reporting	Textiles and Design
3D Modeling and Printing	Digital Audio Engineering	Photography II
Architectural Design 1 & 2	Engineering Design 1 & 2	Interior Design, STEM!

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

The **graduating Class of 2023 and after** are required to demonstrate proficiency on the required Keystone exams or an alternate Pathway as outlined below:

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

Pathways to Graduation

Act 158 of 2018 (Act 158) provides alternatives to Pennsylvania's statewide requirement of attaining proficiency on the three Keystone Exams (Algebra I, Literature and Biology) for a student to meet statewide graduation requirements. Effective with the class of 2023, students have the option to demonstrate postsecondary preparedness through one of five pathways. An overview of the five Pathways are provided below:

Pathways to Graduation - Act 158 of 2018

Pathway #1	Pathway #2	Pathway #3	Pathway #4	Pathway #5
Keystone Proficiency	*Keystone Composite*	*Alternate Assessment*	*Evidenced Based*	*Career and Technical Education (CTE) Concentrator*
Score Proficient or Advanced on **ALL 3** Keystone: • Algebra • Biology • Literature *Students who completed Algebra 1, Biology or Literature Grade 10 in the 2019-20 school year received an automatic non-numeric score of Proficient*	Proficient or Advanced on at least **ONE** of the Keystone Exams and at least Basic on the other two. **AND**	Meet local grade-based requirements for Keystone content **in which student is less than proficient**. **AND** **one** piece of evidence listed below	Meet local grade-based requirements for Keystone content **in which student is less than proficient**. **AND** **three** pieces of evidence listed below	Meet local grade-based requirements for Keystone content **in which student is less than proficient**. **AND** **one** piece of evidence listed below
	Earned a composite score of at least 4452 on Keystone exams: • Algebra • Biology • Literature *No score can be Below Basic and at least one score must be Proficient or Advanced* *The Keystone Exam 2-score composite is 2939 or Greater (where eligible under §121.1)*	*Must choose **ONE** of these:* • Attainment of one alternative assessment score or better: PSAT 10/NMSQT (970), or SAT (1010), or ACT (21), ASVAB AFQT (31), • Attainment of Gold Level or better ACT-WorkKeys • Attainment of 3 or better on AP exam related to Keystone content area in which less than proficient- AP Bio, AP English • Successful completion of a pre-apprenticeship program (PYAP) • Successful completion of concurrent enrollment course(s) related to each Keystone content area in which less than proficient • Acceptance into an accredited, non-profit Institution of Higher Education (IHE) 4yr program for college-level coursework.	*Must choose **ONE or MORE** of these:* • Attainment of 630 or better on any SAT Subject test • Attainment of Silver level or better ACT-WorkKeys • Attainment of 3 or better on any AP exam • Attainment of industry recognized credentialization • Successful completion of any concurrent enrollment or post secondary course. • Acceptance into an accredited, non-profit Institution of Higher Education (IHE) other than 4yr program for college-level coursework. **AND**	*Must choose **ONE** of these:* • Attain industry-based competency certification • Likelihood of industry-based competency success. • Readiness for continued engagement in Career and Technical Education (CTE) Concentrator program of study

			*Choose **NO MORE than TWO** of these:* • Attain advanced or Proficient on any Keystone Exam • Letter guaranteeing full-time employment or military enlistment • Completion of an internship, externship or cooperative education program • Compliance with NCAA Division II academic requirements • Successful completion of a service learning project	

*A student with a disability who is unable to satisfy pathway requirements but who satisfactorily completes a special education program is granted a diploma under Title 22 §4.24.

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 .

METHACTON CAREER EXPLORATION

Where do you start when choosing a career? In high school, students should begin to hone in on and reflect upon their interests, abilities and experiences. Students should also begin to look at the ways careers are organized. Below you will find a description of six broad career fields. Each description breaks down the career cluster(s) (in bold) within that field. A career cluster is a group of careers that share common features. If you like one job in a cluster, you will probably find other jobs in that cluster that you will like as well. You will also find examples of careers in each career field. Methacton electives that correspond to each career field are included so that students can make informed decisions about their course selection and how they relate to careers that may interest them. For more details about each course, please review the course descriptions in this Program Planning Guide and consult with your School Counselor.

AGRICULTURE, FOOD AND NATURAL RESOURCES
Do you enjoy working with animals? Are you interested in protecting the environment?

Agriculture, food, and natural resources workers produce agricultural goods. This includes food, plants, animals, fabrics, wood, and crops. You might work on a farm, ranch, dairy, orchard, greenhouse, or plant nursery. You could also work in a clinic or laboratory as a scientist or engineer. Some agriculture, food, and natural resources workers market, sell, or finance agricultural goods. For example, you might market products

made from plants and animals. Or, you might sell services that farmers and ranchers use to improve products. You could also work to conserve natural resources or protect the environment.

CAREERS IN THIS FIELD	ELECTIVES TO CONSIDER
Agricultural Engineers	AP Environmental Science
Agricultural Equipment Operators	AP Statistics
Animal Breeders	Consumer Finance
Animal Scientists	Health and Physical Education
Environmental Engineers	Oceanography
Farmers and Ranchers	NMTCC programming
Food Scientists	Probability and Statistics
Zoologists and Wildlife Engineers	Today's Foods
Art, Communication and Information Systems	AP Human Geography
	World Languages

ARTS, COMMUNICATIONS AND INFORMATION SYSTEMS
Do you like to perform in front of an audience? Are you a visual person or do you like to work with productions and technology? Would you like to get paid to work on computers?

Arts, audio/video technology, and communications workers use creativity and their talents on the job. You might work for an audience as a performer or artist. This includes painters, dancers, sculptors, actors, singers and instrumental musicians. Or, you might work behind the scenes to make a performance successful. This includes set designers, editors, broadcast technicians, and camera operators. Information technology workers are in a growing and always changing field. You might work with computer hardware, software, multimedia, or network systems. You might design new computer equipment or work on a new computer game.

CAREERS IN THIS FIELD	ELECTIVES TO CONSIDER
Actor	Advanced Graphic Design
Acoustic Design/Engineering	Advanced Java Concepts
Camera Operator	AP Computer Science
Commercial Music	AP Music Theory

Computer Programmer	AP Psychology
Conductor	AP Studio Art
Fashion Designer	Band
Film Editor	Ceramics Courses: Hand-built Ceramics, Advanced Ceramic Art, 3D Studio Art, Wheel Thrown Ceramics
Film Scoring	Concert Choir/Chorale
Fine Artist	Creative Writing
Floral Designer	Digital Audio Engineering
Game Designer	Graphic Design
Graphic Designers	Movie Making and Film
Information Security Analysts	Interior Design, STEM
Instrument Engineering	Intro to Computer Science
Music Retail	Intro to TV Broadcasting & Journalism
Network Administrator/Support Specialist	TV Commercials and News Reporting
Producer/Director	Music Theory Fundamentals
Reporter	Orchestra
Software Developer	NMTCC programming
Song Writer	Photography I and II
Sound Engineer	Psychology
Web Designer	Public Speaking
Author	Statistics
	Studio Art 1,2,3
	Yearbook
	World Languages

BUSINESS, MANAGEMENT AND ADMINISTRATION

Are you friendly and outgoing? Do you enjoy public speaking? Can you be persuasive? Do you enjoy working with other people? Do you like to plan and organize activities? Are you good at math? Do you

like to work with numbers? Would you like to get paid to help people have fun?	
Business, management, and administrative workers give the support needed to make a business run. You might check employee time records or train new employees. Or, you might work as a top executive and provide the overall direction for a company or department. **Finance** workers keep track of money. You might work in financial planning, banking, or insurance. **Hospitality and tourism** workers help people enjoy vacations and entertainment activities. You might work at a restaurant, resort, sports arena, theme park, museum, or hotel. **Marketing, sales, and service** workers help businesses sell products. You might advertise and promote products so customers want to buy them. Or, you might sell products and services to customers.	
CAREERS IN THIS FIELD	**ELECTIVES TO CONSIDER**
Accountant	AP Calculus AB/BC
Actuary	AP Human Geography
Administrative Assistant	AP Psychology
Advertising Sales Agent	AP Statistics
Athletics and Sports Competitors	AP Studio Art
Cashier	Business Law
Chef	Consumer Finance
Chief Executive	Contemporary Calculus
Entrepreneur	Creative Writing
Financial Advisor	Entrepreneurship/INCubator EDU entrepreneurship
Food Service Management	Graphic Design/Advanced Graphic Design
Fundraiser	Intro to Business
Human Resource Manager	Marketing
Marketing Manager	NMTCC Programming
Public Relations Manager	Advanced Personal Finance
Real Estate Agent	Photography I and II
Sales Manager	Probability
Tour Guide	Psychology
	Statistics
	Studio Art 1,2,3

	Textile and Design
	Today's Foods
	Women in America
	World Languages

ENGINEERING, MANUFACTURING AND TECHNOLOGY

Have you always been fascinated by vehicles? Do you like to drive them or fix them? Would you like to get paid to build the things people use every day? Are you good at working with your hands? Can you figure out how a machine works? Are you detail-oriented? Do you want to know how things work, or enjoy solving problems?

Architecture and construction workers work on buildings and other structures. This includes highways, bridges, houses, and buildings. You might create the designs or plans for new structures. Or, you might use the plans to build it or manage the workers on the project. **Manufacturing** workers work with products and equipment. You might design a new product, decide how the product will be made, or make the product. You might work on cars, computers, appliances, airplanes, or electronic devices. **Science, technology, engineering, and mathematics (STEM)** workers do scientific research in laboratories or the field. Others plan or design products and systems. Or, you might support scientists, mathematicians, or engineers as they do their work. **Transportation, distribution, and logistics** workers move people and products by road, air, rail, and water. You might work as a driver, pilot, engineer, or captain.

CAREERS IN THIS FIELD	ELECTIVES TO CONSIDER
Aerospace Engineering Technician	3D Modeling and Printing
Air Traffic Controller	AP Science: Biology, Chemistry, Physics
Architect	AP Computer Science
Automotive Body Repair	AP Human Geography
Biochemist	Studio Art 1,2,3
Carpenter	Business Law
Construction Manager	Consumer Finance
Dental Laboratory Technician	Contemporary Calculus
Electrical Engineer	Entrepreneurship/INCubator EDU entrepreneurship
Electrician	Graphic Design/Advanced Graphic Design
Environmental Scientist	Intro to Business

Flight Attendant	Interior Design, STEM
Interior Designer	Intro to Engineering
Machinist	Intro to Computer Science
Mathematician	Marketing
Mechanic	Engineering Design I and II
Nuclear Technician	NMTCC Programming
Physicists	Advanced Personal Finance
Robotics Engineer	Photograph I and II
Roofer	Architectural Design I and II
Statistician	Statistics
Stonemason	Textile and Design
Welder	World Languages

HEALTH SCIENCE TECHNOLOGY
Would you like to get paid for taking care of others?

Health science workers promote health and wellness. They diagnose and treat injuries and disease. As a physician, dentist, or nurse, you could work directly with patients. You could also work in a laboratory to get information used in research or provide administrative support by keeping medical records. Health science jobs are found at a variety of different sites. For example, you could work in a hospital, office, clinic, or nursing home. Or you could work on a cruise ship, at a sports arena, or within a patient's home.

CAREERS IN THIS FIELD	ELECTIVES TO CONSIDER
Allergist	Anatomy and Physiology
Anesthesiologist	AP Biology, AP Chemistry
Athletic Trainer	AP Psychology
Audiologist	AP Statistics
Biomedical Engineer	Studio Art 1,2,3
Chiropractor	NMTCC Programming
Dental Hygienist	Child Development 1 and 2

Dentist	First Aid with CPR and AED
Dermatologist	Health and Physical Education
Home Healthcare Worker	Psychology
Midwife	Statistics
Neurologist	Today's Food
Nurse	World Language
Nutritionist	Independent STEM Research
Occupational Therapist	
Opthamologist	
Optometrist	
Pediatrician	
Physical Therapist	
Physicians Assistant	
Surgeon	
Veterinarian	

HUMAN SERVICES

Do you care about people and want to help in some way? Do you like the idea of protecting people? Can you work in the face of danger? Do you want to help people figure out the legal system? Would you like to get paid to help others learn new things? Are you interested in politics? Are rules and laws important to you?

Education and training workers guide and train people. As a teacher, you could influence young lives. You could also support the work of a classroom teacher as a counselor, librarian, or principal. You could coach sports activities or lead community classes. **Government and public administration** workers help pass and enforce the law. You could work in national, state, or local government. You will find almost every type of occupation within the government, including some jobs that are only found within government. **Human Services** workers help individuals and families meet their personal needs. You might work in a government office, hospital, nonprofit agency, nursing home, spa, hotel, or school. Or, you might work in your own home. **Law, public safety, corrections, and security** workers are found in a variety of settings. For example, you might guard the public and enforce the law as a police officer or security guard. Or, you might provide fire protection as a firefighter.

CAREERS IN THIS FIELD	ELECTIVES TO CONSIDER
Animal Control Worker	AP Human Geography
Coach	AP Statistics
Teacher, Professor	AP Psychology
Detective, Police Officer	Business Law
Firefighter	Child Development 1,2,3
Funeral Director	Criminal Justice
Hair Stylist/Cosmetologist	(DE) Intro to Education
Lawyer	Entrepreneurship
Legislator	First Aid with CPR/AED
Massage Therapist	Forensic Psychology
Mental Health Professional	Intro to Business
Nanny	Marketing
Paramedic	Advanced Personal Finance
School Psychologist	Psychology
Security Guard	Public Speaking
Tax Collector	Sociology
Transportation Inspector	Women in America
Urban Planner	World Languages

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
0720	Photography I	9-12	6	Sem	.5	

0725	Photography II	9-12	6	Sem	.5	Photography I, 80%
0721	Graphic Design	9-12	6	Sem	.5	
0722	Adv. Graphic Design	10-12	6	Sem	.5	Graphic Design, 80% or better
0921	Hand-built Ceramics	9-12	6	Sem	.5	
0922	Advanced Ceramic Art	10-12	6	Sem	.5	Ceramic Art I or Wheel-Thrown Ceramics, 80% or better
0923	3D Studio Art	11-12	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	Art III 80% or better, Dept. Approval

Business and Computer Education Department

Course Number	Name	Grade	Periods	Sem/Yr	Credits	Requirements
0601	Introduction to Business	9-12	6	Sem	.5	Satisfies Graduation Requirement
0602	Advanced Personal Finance	9-12	6	Sem	.5	Satisfies Graduation Requirement
0603	Business Law	10-12	3/6	Yr/Sem	.5	
0605	Entrepreneurship	10-12	6	Sem	.5	
0607	INCubatoredu Entrepreneurship (Uncharted Learning)	10-12	6	Yr	1.0	
0609	Marketing	10-12	6	Sem	.5	
DE ECON 201	Dual Enrollment Principles of Economics I: Macro	11-12	6	Sem	.5	
DE ECON 202	Dual Enrollment Principles of Economics I: Micro	11-12	6	Sem	.5	

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 80% average in grade 8 Honors English and 90% in Academic Reading or 80% Honors

						Reading
*3109	DI Composition 9	9	6	Yr	1.0	Teacher recommendation
*0101	English 10 World Literature	10	6	Yr	1.0	Completion of English 9
*0102	Academic English 11	11	6	Yr	1.0	Completion of English 10
*0103	Academic English 12	12	6	Yr	1.0	Completion of English 11
*0107	English 10 Honors	10	6	Yr.	1.0	90% average in 9th grade Academic English or 80% average in 9th grade Honors English
*3110	DI English Literature 10	10	6	Yr.	1.0	Teacher recommendation
*0108	English 11 Honors	11	6	Yr	1.0	90% average in 10th grade Academic English or 80% average in 10th grade Honors English
*3111	DI English 11	11	6	Yr	1.0	Teacher recommendation
*0109	English 12 Honors	12	6	Yr	1.0	90% average in 11th grade Academic English or 80% average in 11th grade Honors English
*3112	DI English 12	12	6	Yr	1.0	Teacher recommendation
*0104	English 12: Literacy Connections	12	6	Yr	1.0	Recommended by their 11th Grade English teacher or administration
0118	Sports in Literature	9-12	6	Sem	0.5	
0119	Media Literacy	9-12	6	Sem	0.5	
0121	Introduction to Film	9-12	6	Sem	0.5	
0128/.5	Creative Writing	9-12	6	Sem	0.5	80% in previous English course
0138	Public Speaking	9-12	6	Sem	0.5	
*1985	AP Capstone Seminar: English 10 World Literature	10-12	6	Yr	1.0	90% in Honors English 9 and Teacher Recommendation
1986	AP Capstone Research	11-12	6	Yr	1.0	AP Capstone Seminar Required
*1974	AP English Lit. & Comp.	11	6	Yr	1.0	80% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors course.
*1975	AP English Lang. and Comp.	12	6	Yr	1.0	80% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors course.

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

Family and Consumer Sciences

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0801	International Cuisine	10-12	6	Sem	0.5	Satisfies Grad. Requirement
*0803	Today's Foods	9-12	6	Sem	0.5	Satisfies Grad. Requirement

*0820	Interior Design, STEM!	10-12	6	Sem	0.5	
*0840	Child Development	10-12	6	Sem	0.5	Satisfies Grad. Requirement
*0842	Child Development 2	11-12	6	Sem	0.5	Child Development Satisfies Grad. Requirement
*0600	Consumer Finance	9-12	3	Sem	0.25	Satisfies Grad. Requirement
*0808	Textile and Design	9-12	6	Sem	0.5	Satisfies Grad. Requirement

*** indicates that this course fulfills the FCS/Consumer Finance graduation requirement.**

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	
0009	Lifeguarding	10-12	6	Sem	0.5	Must be 15 years of age
0011	Responsible Health Behaviors	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 11th grade
2012	Adapted Health & PE	9-12	6	YR	1.0	IEP Team Decision

Mathematics Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0409	Contemporary Calculus	11-12	6	Yr	1.0	80% in Pre-Calculus
*0415	Applied Math	12	6	Yr	1.0	Algebra I
*3410	DI Applied Math	11-12	6	Yr	1.0	IEP Required for Enrollment
*0416	Algebra I Standards (Algebra I Part A)	9	6	Yr	1.0	Benchmark & Grade Criteria
*0417	Algebra I Secondary Concepts of Algebra (Algebra I Part B)	10	6	Yr	1.0	Algebra IA
*0419	Algebra I	9	6	Yr	1.0	Benchmark & Grade Criteria
*3407	DI Algebra I Part A	9	6	Yr	1.0	IEP Required for Enrollment
*3408	DI Algebra I Part B	10	6	Yr	1.0	IEP Required for Enrollment
*0420	Algebra II	9-12	6	Yr	1.0	Alg. I (or equivalent)
*0421	Algebra II/Trig.	9-12	6	Yr	1.0	80% in Alg. I & Geometry
*3409	DI Algebra 2/Geometry	10-12	6	Yr	1.0	IEP Required for Enrollment
*0422	Algebra III/Trig.	11-12	6	Yr	1.0	80% in Alg. II and completion of Geo. or 80% in Prin. of Geo
*0426	Algebra II/Trig. Honors	9-10	6	Yr	1.0	83% in Hon. Alg. I, and Hon Geo. or *Appropriate placement test score*

*0427	Trigonometry	12	6	Sem	0.5	Completion Algebra II and Principles of Geometry (or Geo.)
*0429	Principles of Geometry	9-12	6	Yr	1.0	Below 83% in Alg II
*0430	Geometry	9-12	6	Yr	1.0	83% in Alg I (9th) and Alg II (10th) ; or 95% in Alg I (9th grade only); 80% in Alg 1 (8th grade)
*0432	Geometry Honors	9	6	Yr	1.0	83% in Hon. Alg. I or *Appropriate placement test score *
*0441	Pre-Calculus	11-12	6	Yr	1.0	73% Alg. II/Trig **or** 80% in Alg. III/Trig
*0442	Pre-Calculus Honors	10-11	6	Yr	1.0	83% Hon Alg. II/Trig. or *Appropriate placement test*
*0457	Data Science	11-12	6	Sem	0.5	75% or higher in Algebra 2 or teacher recommendation
*0454	Statistics	12	6	Yr	1.0	75% in Alg II/Trig or Alg III/Trig, or 75% in Alg II and Geometry, or completion of PreCalculus
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
*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. or 85% in Pre-Calculus The most recent Course grade must be above the 85% threshold
1997	AP Computer Science Principles	10-12	6	Yr	1.0	85% in both Alg I and Geometry (or Alg II) 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 Precalculus/AP Calculus in rising 11th or 12th grade ***OR*** c) 80% in AP Computer Science Principles
1999	Introduction to Cybersecurity	10-12	6	Sem	0.5	80% in Algebra I

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

Music Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0932	Concert Band	9-12	3	Yr	0.5	
0934	Concert Band	9-12	6	Yr	1.0	
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 Fundamentals	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	Chemistry in the Community	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	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

0565	Forensic Lab Science	11-12	6	Sem	0.5
0560	Hydroponic Farming	9-12	6	Sem	0.5
0570	Independent STEM Research	9-12	3	Sem	0.25
*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.

Science Course Selection Requirement Summary Sheet

Course	Science Requirement	Math Requirement
Academic Biology	Pass previous science course	
Hon. Biology (9th Gr.) Hon. Biology (10th Gr.)	93% Hon 8th Gr. Science (or 95% Acad. 8th Gr. Science) 90% Hon. Env. 9 Science (or 95% Acad. Env. 9 Science)	
Chem. Com	Passed Biology	
Academic Chemistry	70% Academic Biology	70% Algebra 1 OR 70 % Algebra II
Dual Enrollment Chem. *MCCC tuition and Textbook purchase required	82% Academic Biology (or 72% Honors)	82% Alg. I (or 72% Hon. Alg. I) 82% Geometry (72% Hon.) Exception: an 82% or above in Algebra II would fully satisfy the math requirement for DE Chemistry
Hon. Chemistry	90% or better in Academic Biology (80% in Honors Biology)	90% or better in Algebra I (80% in Honors Algebra I) AND 90% in Geometry (80% in Honors Geometry)
Conceptual Physics	Passed Chemistry or Chemistry in the Community	
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 90% Algebra II
Environmental Science		
Honors Environmental Science	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)	
Forensic Lab Science	Successful completion of Biology and Chemistry (75% or higher)	
Hydroponic Farming	75% or better in Environmental Science or 9th grader currently taking Biology	
AP Biology	85% in Hon. Bio (97% Academic Bio) 82% in Hon. Chem. (87% Academic/85% DE)	
AP Chemistry	85% Hon. Chem. (97% Academic /94% DE)	83% Hon. Alg. II/Trig (93% Academic)
AP Environmental	80% Hon. Bio. (85% Academic) and 75% Hon. Chem. (80% Academic/DE)	70% Algebra
AP Physics C	87% in Physics	AP Calculus AB or BC (concurrent or completed)

Social Studies Department

For all courses, see General Social Studies Requirements on page 64.

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
*0206	Global History I	9	6	Yr	1.0	General Soc. St. Requirement
*0207	Global History I Honors	9	6	Yr	1.0	General Soc. St. Requirement
*0208	Global History II	10	6	Yr	1.0	General Soc. St. Requirement
*0209	Global History II 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	3	Sem	0.5	
0241	Forensic Psychology	12	6	Sem	0.5	70% in AP Psychology
*0251	United States Government & Politics	12	6	Yr	1.0	General Soc. St. Requirement
*0252	United States Government & Politics Honors	12	6	Yr	1.0	General Soc. St. Requirement
0263	Sociology	10-12	6	Sem	0.5	
0264	Criminal Justice	10-12	6	Sem	0.5	
*+1969	AP European History	10-12	6	Yr	1.0	See course description
*+1970	AP United States Government & Politics	12	6	Yr	1.0	General Soc. St. Requirement
*+1971	AP Human Geography	9-12	6	Yr	1.0	See course description

+1976	AP Psychology	11-12	6	Yr	1.0	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 or 90% average in Psychology (0240)
*+1977	AP United States History	11	6	Yr	1.0	General Soc. St. Requirement
0239	Women in America	11-12	3	Sem	0.5	

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

Technology Education Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
0710	Introduction to Engineering Design	9-12	6	Sem	0.5	
0743	Engineering Design 1	10-12	6	Sem	0.5	Intro to Engineering and 3D Modeling & Printing
0750	Engineering Design 2	10-12	6	Sem	0.5	Engineering Design 1
0761	3D Modeling & Printing	9-12	6	Sem	0.5	75% or higher Intro to Engineering
0762	Architectural Design 1	10-12	6	Sem	0.5	75% or higher Intro to Engineering
0769	Architectural Design 2	10-12	6	Sem	0.5	75% or higher Intro to Engineering and Architectural Design 1

Media and Telecommunications Department

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
2300	Intro to TV Broadcasting, News Writing & Video Editing	9-12	6	Sem	0.5	
2301	TV Commercials & News Reporting	10-12	6	Sem	0.5	Intro to TV Broadcasting, News Writing & Video Editing
2302	The Warrior News & The Windy Hill	10-12	6	Sem	0.5	Intro to TV Broadcasting,

						News Writing & Video Editing
2303	Movie Making & Film Festival	10-12	6	Sem	0.5	Intro to TV Broadcasting, News Writing & Video Editing

World Language Department

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
0302	German 3	10-12	6	Yr	1.0	German 2, 70% average
0307	German 3 Honors	10-12	6	Yr	1.0	See course description
0303	German 4	11-12	6	Yr	1.0	German 3, 75% average
0308	German 4 Honors	11-12	6	Yr	1.0	See course description
0310	French 1	9-12	6	Yr	1.0	
0311	French 2	9-12	6	Yr	1.0	French 1, 70% average
0313	French 3	10-12	6	Yr	1.0	French 2, 70% average
0316	French 3 Honors	10-12	6	Yr	1.0	See course description
0314	French 4	11-12	6	Yr	1.0	French 3, 75% average
0317	French 4 Honors	11-12	6	Yr	1.0	See course description
0330	Spanish 1	9-12	6	Yr	1.0	
0331	Spanish 2	9-12	6	Yr	1.0	Spanish 1, 70% average
0333	Spanish 3	10-12	6	Yr	1.0	Spanish 2, 70% average
0339	Spanish 3 Honors	10-12	6	Yr	1.0	See course description
0334	Spanish 4	11-12	6	Yr	1.0	Spanish 3, 75% average
0340	Spanish 4 Honors	11-12	6	Yr	1.0	See course description
+1994	AP Spanish Language And Culture	12	6	Yr	1.0	See course description
+1995	AP French Language And Culture	12	6	Yr	1.0	See course description
+1996	AP German Language And Culture	12	6	Yr	1.0	See course description

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

0994	NMTCC AM GR. 9	9	18	Yr	2.25	
0995	NMTCC AM GR. 10	10	18	Yr	2.25	
0997	NMTCC PM GR. 11	11	18	Yr	2.25 or 3	
0998	NMTCC PM GR. 12	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	An application form must be completed and approved by the Yearbook sponsors prior to registering for this course.
1070	Pre-Career Activity Sem. 1	12	-	Sem	0.5	
1071	Mentorship Program	10-11			P/F	.25 credit/20 hours
1072	Pre-Career Activity Sem. 2	12	-	Sem	0.5	

Dual Enrollment Courses

Open to Sophomores (DE Chemistry only), Juniors, and Seniors.
These elective classes are weighted by a factor of 1.1.

Course Number	Course Title	College Credits Earned	MHS credits earned
NMTCC Offerings:			
DE NMBIT120	Intro to Biotech (formerly Sem 1 of Biotech)	4 College credits	NMTCC credit
DE NMBIT123	Techniques And Instruments in Biotech (formerly Sem 2 of Biotech)	4 College credits	NMTCC credit
MCCC Offerings:			
DE EDU 100	Intro to Education	3 College credits	0.5
DE CHEM 121	General Chemistry	4 College credits	1.2
DE ECON 201	Principles of Economics I: Macro	3 College credits	0.5
DE ECON 202	Principles of Economics II: Micro	3 College credits	0.5

Special Programs – Gifted Learners

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
3913	Gifted Seminar	9-12	3	Yr	0.5	Student must have GIEP

Advanced Placement Courses

In the 2025-2026 school year, registration for the Advanced Placement Exams will occur in the Fall. This is a

change implemented by the 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 2025. The Advanced Placement Courses carry a weight of 1.2.

Course Number	Name	Grade	Periods	Sem/ Yr	Credits	Requirements
1969	AP European History	9-12	6	Yr	1.0	See course description
1970	AP U.S. Government & Politics	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: English 10 World Literature	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
1996	AP German	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

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
This course offers a complete introduction to two-dimensional forms of art production. Students will practice observational drawing, begin to understand the elements and principles of design, develop aesthetic awareness, and exercise creative problem solving. Students will have the opportunity to experience a variety of media such as graphite, paint, colored pencil, collage, and printmaking. Whether a student wishes to further their formal art education or if they are interested in improving their art skills for personal enrichment, this course is a great option for all grades and skill levels.

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 art course focuses on observational drawing and painting, refinement of technical skills, best studio practices, and the exploration of advanced level materials and processes (i.e. oil paints, printmaking). Assignments are completed with the intention of becoming an integral part of the student's art portfolio, with specific attention paid to portfolio building. This class is an essential for students who plan to apply to a post secondary art or design program. Art III is a requirement for any student wishing to take AP Studio Art.

0720 PHOTOGRAPHY I

Offered in grades 9-12 0.5 credits
Class meets 6 periods per cycle, 1 semester
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 be 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 STEM (Science, Technology/Computers, Engineering, Math) Requirement.

0725 PHOTOGRAPHY II

Offered in grades 9-12 0.5 credits

Class meets 6 periods per cycle, 1 semester

Required: 80% in Photography I and teacher approval. Taking photographs at (minimum of) two school events is required for this course.

This course will offer students a second and more advanced look at Photography in the form of concepts, hardware and software. The course will first review photography foundations from Photograph I. Then, students will explore advanced techniques beyond the scope of those foundations. Smaller groups may, for instance, explore more portraiture opportunities, during which they can invest in week-long periods to hone their in-studio skills via use of three-point lighting and via the use of add ons such as snoots and varying backdrops. Photography II students will have more opportunity for product creation from the DSLR and lighting hardware to advanced manipulation of their photographs in Photoshop. Students will organize their work online during the course of the semester. From that collection, they will create a website that hosts their portfolios. They will also have the opportunity to explore a specific area of concentration. Students will be expected to take photographs "for" or "at" two school events.

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

*This class counts as a STEM (Science, Technology/Computers, Engineering, Math) 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 graphic art as a career. Students will develop an individual design style using a variety of software for advertising, branding, marketing, web design, and illustration.Students will learn that vectors can be output onto various materials including wood, fibers, vinyl, and porcelain. This class is ideal for designers seeking to expand their skill set into physical production and aiming to enhance their mastery of output and finishing technologies through use of screen printing, laser cutting, vinyl cutting, and sublimation printing.

*This class counts as a STEM (Science, Technology/Computers, Engineering, Math) Requirement.

0921 HAND-BUILT CERAMICS (Formerly 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

Prerequisite: *No prerequisites.*

If you love to build with your hands, then this course is for you! Learn the fundamental techniques needed to create sculptural and functional ceramics. This project-based course will cover construction, surface techniques, methods, and history of ceramic art. Students will learn and practice basic hand-building methods such as pinching, coiling, and slab construction as well as begin an understanding of the art elements and design principles. Various surface and glazing techniques will be covered, and students will be introduced to the firing process. Students will also build and maintain a digital portfolio for the work they create in class. This foundation course is rooted in understanding clay as a medium for art making, and therefore serves as a

prerequisite option for any student who wishes to take Advanced Ceramic Art and students who wish to pursue a 3D art portfolio.

0922 ADVANCED CERAMIC ART (Formerly CERAMIC 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
Prerequisite: Ceramic Art I or Wheel-Thrown Ceramics, 80% average or better

This second-level course is for students who wish to advance their skill in the ceramics medium. Basic information will be reviewed through practice, and more complex and challenging methods for building functional ceramics and sculpture will be introduced. With the option of either Ceramic Art I (Hand-Built Ceramics) or Wheel-Thrown Ceramics as a foundation, each student's individual prerequisite experience will be the basis for their work in this more challenging course. In other words, students may produce clay projects by hand or on the pottery wheel depending on their foundation experience. Students will gain creative freedom as they approach art projects with a focus on symbolism and honing their technical skills. Students will study professional artists' work and will have an opportunity to experience new ceramic media (like clays, glazes, and alternative finishing techniques). Students will also maintain a digital portfolio for the work they create in class, building on work created in their prerequisite course.

0923 3D STUDIO ART (Formerly CERAMIC ART III) ***There will be a lab fee of $15 for materials.***
Offered in grades 11-12 .5 credits Class meets 6 periods per cycle, 1 semester
Requirement: Ceramic Art II, 80% average or better

This course is recommended for highly motivated art students interested in further developing their skills in ceramic and other sculptural and 3D media. Emphasis will be placed on goal-setting, refining students' personal creative processes, group and self critique, understanding the principles of design, and building a 3-dimensional portfolio with the added component of maintaining a digital portfolio to showcase their understanding of the aforementioned objectives. Students will have the opportunity in this course to carve out a path for deeper learning in a 3D focus area, choosing topics that interest them. This individualized course is essential for any student wishing to pursue a post secondary education in any of the following fields: 3D modeling, design (3D fields such as product/industrial design, architectural design, interior design, furniture design, or fashion design), studio art focusing on 3D media (sculpture), or fine craft (ceramics, fiber, wood, metals, glass). This course is a prerequisite for taking AP Art, but upon recommendation may be taken in conjunction with AP Art.

0925 WHEEL-THROWN CERAMICS
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
Requirement: No Prerequisite

Have you ever seen a pottery wheel in action and been totally mesmerized by it? Don't miss this opportunity to learn how to "throw on the wheel"! Create functional ceramics while also gaining an understanding of the fundamental knowledge of clay processes including clay preparation, firing, and surface decoration in this project-based course. Ceramics history and an exploration of practicing ceramic artists will be discussed. There will be an emphasis placed on the importance of practice, improvement, and efficient production, honing skills of time management and organization. Students enrolled will also build and maintain a digital portfolio for the work they create in class. This foundation course is rooted in understanding clay as a medium for art making, and therefore serves as a prerequisite option for any student who wishes to take Ceramic Art II and students who wish to pursue a 3D art portfolio.

+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; Art Department chairperson approval needed.
Students are strongly advised to take Photography, Graphic Design, and Advanced Graphic Design prior to or 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 and conduct a year-long research assignment exploring medias and creating two portfolios for the Collegeboard Exam. The Selected Works section requires students to demonstrate skillful synthesis of materials, processes, and ideas. The Sustained Investigation section requires students to conduct a sustained investigation based on questions, through practice, experimentation, and revision. Both sections of the portfolios require students to articulate information about their work. Students will learn how to document, photograph, write about their artworks all while implementing a high level of technical skill.

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 the 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 Advanced Personal Finance	X	X	X	X

0603	Business Law	X	X	X	X
0605	Entrepreneurship		X	X	X
0000	INCubatoredu Entrepreneurship (Uncharted Learning)		X	X	X
0609	Marketing		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 ADVANCED PERSONAL FINANCE

Offered in grades 9-12 .5 credits

Class meets 6 periods per cycle, 1 semester

Fulfills graduation requirement

Do you want to make intelligent financial decisions in your future? Advanced Personal Finance is a comprehensive in-depth course that covers topics such as banking, credit, investments, budgeting, money management and insurance. Interviewing and employment skills are also addressed. The students will learn the much needed knowledge and strategies that will allow them to attain financial security. Specific activities include researching interest rates and ways to improve your credit score, building a solid investment plan that includes a stock portfolio, creating a monthly budget and improving your net worth.

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

This course provides students with the knowledge of how business law affects not only businesses, but their personal lives as well. Topics include the Federal and state court system,civil and criminal law, contracts and consumer law. The purpose of this class is to help the student achieve an understanding of legal principles that are evident in the business world. The students will also learn legal concepts that will allow them to make better decisions in their future.

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 explore the characteristics of successful entrepreneurs as well as the skills and knowledge needed to succeed. The nationally renown resource *Uncharted Learning* will be a primary resource utilized in the course. *Uncharted Learning* programs empower students to scaffold their knowledge from traditional education areas

such as math, science, reading, social studies, and language arts to hands-on, purpose-driven learning opportunities. Students are encouraged to try, fail, learn and try again in the process of creating a business.

0607 INCUBATOREDU ENTREPRENEURSHIP (UNCHARTED LEARNING)
Offered in grades 10-12 1.0 credits
Class meets 6 periods per cycle, 1 year
This course is designed to get students excited about becoming true entrepreneurs by giving them the opportunity to create and fully develop their own product or service. Real-world entrepreneurs and business experts serve as coaches and mentors guiding student teams through the process of ideation, market research, and business plan development. Over the course of the year, student teams learn about marketing, accounting, as well as the legal aspects of starting a business. They have access to a network of professionals to further develop their skills (teamwork, problem solving, presentation, communication) for college and career readiness.

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 course focuses on the major marketing concept of developing a marketing mix that revolves around a target market. This includes the process of product development, effective pricing strategies, distribution decisions and a comprehensive promotion mix. The students will learn the importance of market research and will conduct both qualitative and quantitative research methods. Developing a marketing plan for a company is also addressed.

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.

English

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

+ indicates that this course carries a weight of 1.2.

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: English 10 World Literature	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 80% 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 80% 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 80% average in grade 8 Honors English and 90% in Academic Reading or 80% Honors Reading

Required Summer Reading: book(s) to be announced

In an enriched and rigorous atmosphere, students will develop their analysis, synthesis, and argumentative skills through genre-based literature. With 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, including grammatical concepts, composition, literary criticisms, drama, poetry, the short

story, literary nonfiction in multimedia form, and the novel. **Students are required to complete mandatory summer reading(s) between 8th and 9th grade.**

*3109 DIRECT INSTRUCTION COMPOSITION 9
Offered in Grade 9 1.0 Credit
Class meets 6 periods per cycle, all year.
Scheduled in place of 0091; IEP required for enrollment
Students are provided with the English 9 curriculum in an environment supported by accommodations and modifications. Students will be acquainted with a variety of literary genres. Emphasis is placed on reading comprehension, writing and grammar skills with a focus on authentic assessments such as projects and papers. The class is individualized for each student based on IEP goals.

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 variety of literature including novels, short stories, and poetry. 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: In order to enroll in Honors English, the student must have earned a minimum average of 80% in the previous Honors English course, or have earned a minimum average of 90% in the previous Academic English course.
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.**

*3110 DIRECT INSTRUCTION ENGLISH LITERATURE 10
Offered in Grade 10 1.0 Credit
Class meets 6 periods per cycle, all year.
Scheduled in place of 0101; IEP required for enrollment
Students are provided with the English 10 curriculum in an environment supported by accommodations and modifications. Students will be acquainted with world literature. Emphasis is placed on comprehension, vocabulary, grammar and an ability to recognize, interpret and analyze elements of non-western literature. Students will deliver oral presentations utilizing the research process. Writing will be a core component of the course. The class is individualized for each student based on IEP goals.

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: In order to enroll in Honors English, the student must have earned a minimum average of 80% in the previous Honors English course, or have earned a minimum average of 90% in the previous Academic English course.

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.**

*3111 DIRECT INSTRUCTION ENGLISH 11

Offered in Grade 11 1.0 Credit

Class meets 6 periods per cycle, all year.

Scheduled in place of 0102; IEP required for enrollment

Students are provided with the English 11 curriculum in an environment supported by accommodations and modifications. Students will be acquainted with American Literature. Emphasis is on reading comprehension, vocabulary and grammar. Students will engage in independent reading of literature texts as well as outside articles covering current events. Methacton's Career Counselor will visit the classroom to discuss community, career and post-secondary opportunities for students. Writing will be a core component of the course. The class is individualized for each student based on IEP goals.

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 is a continuation of the introduction and implementation of the basic skills necessary in organizing and developing argumentation

in various forms. 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: In order to enroll in Honors English, the student must have earned a minimum average of 80% in the previous Honors English course, or have earned a minimum average of 90% in the previous Academic English course.
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.**

*0104 ENGLISH 12: LITERACY CONNECTIONS
Offered in grades 12 .10 credit
Class meets 6 periods per cycle, all year
Requirement: **This is a 12th grade level English course for students recommended by their 11th Grade English teacher or administration**
A contemporary English course designed to meet student needs through experiential learning opportunities and high academic standards in the areas of reading, writing, speaking and listening. In addition to course objectives, students will create their own targeted learning goals based on their assessment data and interests. To meet these objectives, students will utilize resources including: non-fiction, classic, or contemporary literature, community action projects, and/or various forms of pre-career readiness activities. The course will align with all 12th grade standards.

3112 DIRECT INSTRUCTION ENGLISH 12
Offered in Grade 12 1.0 Credit
Class meets 6 periods per cycle, all year.
Scheduled in place of 0103; IEP required for enrollment
Students are provided with the English 12 curriculum in an environment supported by accommodations and modifications. Students will be acquainted with British Literature through guided reading. The course will reinforce growth in the areas of reading, writing, vocabulary, and presentation skills. Emphasis is also placed on the ability to express knowledge and demonstrate the skills needed to perform vocational tasks. Writing will be a core component of the course. Assignments will include the college essay as well as a written reflection on future plans. The class is individualized for each student based on IEP goals.

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.

0118 MEDIA LITERACY
Offered in grades 9-12 .5 credits
Class meets 6 periods per cycle, 1 semester
Requirement: None
Due to the blurring of entertainment, information, and persuasion, the concepts of work, life, and social engagement are being reshaped. As a result, our relationship to the media has never been so important and complex. In this course, students will ask critical questions about what they watch, listen to, read, and use, so they can be more responsible communicators for self-expression and advocacy. Students will leave this course with the skills necessary to combat misinformation and critically evaluate information received from the media.

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.

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 and poetry. 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. Students will also explore publication opportunities to write for authentic audiences.

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 students to the basic skills of public speaking. The development of these important skills will help to increase students' confidence while also reducing their anxiety when speaking and presenting in small and large groups. Students will deliver a variety of interesting and entertaining types of speeches ranging from an anecdote, a monologue, a multimedia presentation, and a How-To speech. The course

will focus on life-long communication skills, abilities, and techniques that students will carry with them through high school and beyond.

+*1985 AP CAPSTONE SEMINAR: English 10 World Literature
Offered in grade 10-12 1.0 credit
Class meets 6 periods per cycle, all year
This course fulfills the 10th Grade English requirement 1.0 credit
Teacher Recommendation Required; **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 may be asked to submit a writing sample from their current course for review and approval.**

Prerequisite: 90% or higher in Honors English 9

AP Capstone Seminar: English 10 World Literature is a year-long course in which students investigate the political, socio-cultural, and historical contexts of world literature and their connection to global issues. Students will interact with a variety of literature, nonfiction readings, and other media to think critically about complex issues and develop their own perspective as a local and global citizen. 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. 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. Taking the AP Seminar exam is a course requirement.

+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 80% in the previous English AP course, or have earned a minimum average of 90% in the previous English Honors course.
AP Literature and Composition requires students to engage in the close reading and critical analysis of many works of classic literature. Students enrolled in the course will conduct extensive reading, writing, analysis, and

discussion in order to explore and evaluate the relationship between writer, reader, language, and meaning. The curriculum consists of sophisticated, challenging, and diverse works of fiction and imaginative literature (novels, drama, short stories, and poetry) from various time periods, with instruction designed to illuminate the forces that shape our interpretations of literary works. Students enrolling should demonstrate strong reading comprehension and written expression.

*+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 80% 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 defendable 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 Finance, Today's Foods, Textile and Design, Child Development, or Child Development 2 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 Finance *Today's Foods *Textile and Design	*Today's Foods *Consumer Finance *Textile and Design *Interior Design, STEM!	*Child Development *Consumer Finance *Textile and Design *International Cuisine *Child Development 2	*Child Development *Consumer Finance *Textile and Design *International Cuisine *Child Development 2

*0801 INTERNATIONAL/AMERICAN CUISINE
Offered in grades 11, 12 .5 credits
Class meets 6 periods per cycle, 1 semester
Requirement: Successful completion of 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. Students will learn different cultural foods and the history behind those foods. Students will master skills introduced in Today's Foods. Developing buffet meals, presenting a food

unique to a particular region or culture and sampling prepared foods are integral to the course.

*0803 TODAY'S FOODS
Offered in grade 9-12 .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.

0820 INTERIOR DESIGN, STEM!
Offered in grades 10-12 .5 credits
Class meets 6 mods per cycle, 1 semester
Fulfills graduation requirement
This course is recommended for students interested in pursuing a career in interior design, or other careers in design such as fashion, decoration and display making. Students develop their own design tastes through the study of design trends and history, furniture styles and fabrics, color theory and lighting. Students will then use their skills in a series of design challenges and projects. They will develop and sketch 2D floor plans, along with 3D designs. Finishing out the course with designing a Dream House on a Budget for a client!

*0840 CHILD DEVELOPMENT
Offered in grades 10-12 .5 credits
Class meets 6 periods per cycle, 1 semester
Fulfills graduation requirement

Are you interested in becoming a Nurse, an Early Education Teacher or even a Parent someday? Then this is the class for you. Explore what happens to women during the pregnancy, how the baby grows, labor, delivery and watch a live birth. Research the cost of having an infant and raising it for its first year of life. Take home a "REALCARE BABY" and experience the emotional and practical dynamic of caring for a newborn.

0842 CHILD DEVELOPMENT 2
Offered in grades 11, 12 0.5 credits
Class meets 6 days per one cycle, 1 semester
Requirement: Child Development
Fulfills graduation requirement
This class picks right up after Child Development and focuses on the growth, development and unique needs of children from a preschooler to school-age. Students will explore other topics including concerns of children and different family dynamics, health and safety, developmental difference, play and literacy. We take a look at careers in child-related fields but focusing on teaching. Students will design and put together activities for preschoolers to school-aged children.

0600 CONSUMER FINANCE
Offered in grades 9-12
Class meets 3 days per one cycle, 1 semester 0.25 credits
Fulfills graduation requirement
This course prepares students to analyze choices and develop tools to make wise decisions in future financial

planning. Let's explore possible career choices and track current salary trends. Using that data to learn about the basic everyday living finances. Paychecks, budgets, savings, banking, credit, debit, post-secondary education cost, and housing are explored in this course.

0808 TEXTILE AND DESIGN
Offered in grades 9-12
Class meets 6 days per one cycle, 1 semester 0.5
Fulfills gradation requirement **and STEM (Science, Technology/Computers, Engineering, Math) graduation requirement**
This course will focus on the elements and principles of design as it relates to fashion and clothing; fibers and fabrics; using a sewing machine, using a commercial pattern; basic clothing construction; alterations; and clothing care and repair. Students will learn about construction of garments. How fabrics, yarns and fibers are made. Learn about design elements including lines, shapes, etc. Design and build your own clothing items in this class!

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. Students typically take Health during their 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 PHYSICAL EDUCATION 9/10

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.

0009 LIFEGUARDING

Offered in grades 10-12 0.5 credits

Class meets 6 periods per cycle, one semester

Requirements: Must be 15 years of age; Students must also complete a swimming prerequisite test

Taking a Lifeguarding class offers student's comprehensive training in water safety, rescue techniques, and emergency response. Through a combination of theoretical and practical skill development, students can expect to learn life saving techniques such as CPR, first aid, and proper use of rescue equipment such as lifeguard rescue tubes and spinal backboards. The class typically covers topics like recognizing and responding to aquatic emergencies, assessing and managing spinal injuries, and performing water rescues efficiently. Students will also learn about preventative measures to ensure the safety of swimmers, including supervision and accident prevention strategies. Successful completion of the course will result in an American Red Cross Lifeguarding Certification that is good for 2 years and will allow you to work at a community or private swim club as a Lifeguard. Lifeguarding will be offered in the second semester of the year to line up the certification with the summer season.

0017 PHYSICAL EDUCATION 11/12

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.

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 RESPONSIBLE HEALTH BEHAVIORS

Required Course

Typically Offered in Grade 10 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.

2012 ADAPTED HEALTH & PE

Offered in grades 9-12 1.0 credits

Class meets 6 periods per cycle, year-long course

Offered Pass/Fail

Requirements: Department Approval. 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.

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.

Please note the following informational items:

- 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.
- 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 in this *Program Planning Guide*.
- In an effort to ensure student success, students may *not* waiver into AP courses, into the accelerated track from Algebra 1 to Geometry, or from academic to honors courses.
- 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.
- **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.

Below, please find a chart to assist you in planning the appropriate sequencing for your planned course of study in our Mathematics Department. School Counselors are available to provide individual support and planning assistance.

MHS Math Progressions						
Chart represents typical progression scenarios. ***School Counselors are available to provide individual support and planning.*** *See course description for specific prerequisite requirements for each course.*						
8th Grade	Learning Support Math 8 (IEP)	Math 8 *(Pre-Algebra 22-23)*		Algebra I	Honors Algebra I	Honors Geometry
9th Grade	DI Algebra 1A (IEP)	Algebra I Standards (Algebra I part A)	Algebra I	Geometry	(H) Geometry or Geometry	(H) Algebra2/Trig
10th Grade	DI Algebra 1B (IEP)	Secondary Concepts of Algebra (Algebra I part B)	Algebra 2	Algebra 2/Trig	(H) Algebra 2/Trig Algebra 2/Trig	(H)PreCalculus
11th Grade	DI Algebra 2/Fundamentals of Geometry (IEP)	Algebra 2	Geometry or Principles of Geometry	Algebra 3/Trig Statistics Probability Pre Calculus AP Statistics	(H) PreCalculus PreCalculus AP Statistics Probability	AP Calculus AB AP Statistics
12th Grade	DI Applied Math (IEP)	Geometry Principles of Geometry Applied Math Statistics Probability Trigonometry	Algebra 3/Trig Statistics Probability Trigonometry Applied Math	Algebra3/Trig Statistics Probability PreCalculus Contemporary Calculus AP Statistics	AP Calculus AB AP Statistics Statistics Probability Contemporary Calculus	AP Calculus BC AP Statistics

Secondary Mathematics Courses

*0409 CONTEMPORARY CALCULUS
Offered in grade 11-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 80% or above in PreCalculus or teacher recommendation following successful completion of PreCalculus Honors

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. Students will not be ready to take an AP exam in the spring of the academic year. Course includes use of TI -83/84 calculators. Refer to Math Department Calculator Policy above.

*0415 APPLIED MATH
Offered in grade 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: Algebra I

This course covers 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. This course is intended for students who do not wish to continue on to higher level algebra, geometry, or precalculus courses.

*3410 DIRECT INSTRUCTION APPLIED MATH
Offered in grades 11-12 1.0 Credit
Class meets 6 periods per cycle, all year
IEP required for enrollment
DI Applied Math is designed to focus on consumer math topics and areas that correspond to real life mathematical situations. The curriculum is presented with accommodations to support individual learning needs. The year begins with a review of decimals, fractions, solving equations, proportions, and percentages. The units that follow include measurement and geometry, probability, statistics, income, buying foods and goods, budgeting, personal banking, and income tax. The class is individualized for each student based on IEP goals.

*0416 ALGEBRA 1 STANDARDS *(Algebra I Part A)*
Offered in grades 9 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: Appropriate Pre-Algebraic background
Algebra 1A, in conjunction with Secondary Concepts of Algebra , is a two-year course that will cover all topics in a traditional Algebra 1 course. The adjusted pace will allow time for necessary intervention and extension of concepts. This curriculum introduces algebraic concepts such as computing with real numbers and expressions; writing, solving and graphing linear equations and inequalities; reading and interpreting word problems; understanding functional relationships of graphs, tables, and/or equations.

*0417 ALGEBRA 1 SECONDARY CONCEPTS OF ALGEBRA *(Algebra 1 Part B)*
Offered in grade 10 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: Algebra 1A
Algebra 1B, in conjunction with Algebra 1A, is a two-year course that will cover all topics in a traditional one-year Algebra 1 course. The adjusted pace will allow time for necessary interventions. Students in this class will take the Winter Algebra 1 Keystone Exam. Algebra 1B includes the following: coordinate geometry, plane geometry, some trig; analyze/interpret data from various data representations; use measures of dispersion to describe data sets; compute and apply measures of central tendency; use data displays in problem-solving settings to make predictions; find probabilities of compound events.

*0419 ALGEBRA I
Offered in grades 9 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: Appropriate Algebraic background
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.”

*3407 DIRECT INSTRUCTION ALGEBRA I PART A
Offered in Grade 9 1.0 Credit
Class meets 6 periods per cycle, all year
IEP required for enrollment
Direct Instruction Algebra 1 Part A covers the first half of Algebra 1. Students participate in a modified curriculum with accommodations to support their individual learning needs. This class introduces the beginning

algebra concepts that students will need for successful completion of Direct Instruction Algebra I Part B.. The class is individualized for each student based on IEP goals.

*3408 DIRECT INSTRUCTION ALGEBRA I PART B
Offered in Grade 10 1.0 Credit
Class meets 6 periods per cycle, all year
IEP required for enrollment
Algebra I Part B covers the second half of Algebra 1. Students participate in a modified curriculum with accommodations to support their individual learning needs. Students will utilize previously learned mathematical concepts from Direct Instruction Algebra 1 Part A in order to be successful. The class is individualized for each student based on IEP goals.

*0420 ALGEBRA II
Offered in grades 10-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: Algebra I or equivalent
This course extends and strengthens understanding of topics presented in Algebra I as well as pursuing more advanced applications of linear, quadratic, polynomial, exponential and logarithm functions. It is designed for the academic student in grades 10, 11 or 12. Course includes extensive use of a graphing calculator (TI-83/84). Refer to Math Department Calculator Policy.

*0421 ALGEBRA II & TRIGONOMETRY
Offered in grades 9-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 80% or better in both Algebra I and Geometry
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.

*3409 DIRECT INSTRUCTION ALGEBRA 2/GEOMETRY
Offered in grades 10-12 1.0 Credit
Class meets 6 periods per cycle, all year
IEP required for enrollment
Students participate in a modified Algebra 2 and Geometry curriculum with accommodations to support their individual learning needs. Semester one covers the following topics: Expressions, Equations, and Inequalities; functions, equations, and graphs; quadratic functions and equations; polynomials and polynomial functions. Semester two covers the following topics: basic geometry, angles, reasoning and proofs, perpendicular and parallel lines, and triangles. The class is individualized for each student based on IEP goals.

*0422 ALGEBRA III & TRIGONOMETRY
Offered in grades 11 - 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 80% in Alg. II and completion of Geometry or 80% in Principles of Geometry
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 a 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
Requirements: 83% Honors Algebra I, 83% Honors Geometry or appropriate placement test subject to Math Department approval.

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
Requirements: 70% in Algebra II or teacher recommendation

Topics in this course will include triangle and circle trigonometry, as well as graphs and applications using trigonometry. In addition, students will evaluate trigonometric functions, verify trigonometric identities, and use inverse functions to solve trigonometric equations.

*0429 PRINCIPLES OF GEOMETRY
Offered in grades 9-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: Algebra I and less than 83% in Algebra II

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
Requirements: 83% in both Algebra I (9th) and Algebra II (10th), or 95% in Alg I (9th); 80% in Alg I (8th)

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 column proofs are included.

*0432 GEOMETRY HONORS
Offered in grade 9 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 83% Honors Algebra I or appropriate placement test subject to Math Department approval.
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.

*0441 PRE-CALCULUS
Offered in grades 11, 12 1.0 credit

Class meets 6 periods per cycle, all year
Requirements: 73% or better in Algebra II & Trig. or 80% in Algebra III & Trig.
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
Requirements: 83% Honors Algebra II and Trig., or placement test subject to Math Department approval.
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.

*0454 STATISTICS
Offered in grade 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 75% in Algebra II/Trigonometry or Algebra III/Trigonometry ; Or 75% in both Alg II and Geometry; or successful completion of PreCalculus.
The Statistics course is designed to offer students an overview of elementary statistics that allows students to gain valuable skills and understandings on a path to data literacy. Topics include collecting and analyzing data, basic probability, discrete and normal distributions, and statistical inference. This course is appropriate for students planning on pursuing collegiate studies in business and the social sciences. Course requires use of calculators, please refer to the Math Department calculator policy.

*0457 DATA SCIENCE
Offered in grades 11, 12 .5 credits
Class meets 6 periods per cycle, 1 semester
Requirements: 75% or higher in Algebra 2 or teacher recommendation
This course will introduce students to coding in R, a programming language used in college and industry for data science applications. Most assignments involve writing code which is then executed right within the digital Jupyter notebook.Topics include data visualization, descriptive statistics, and the basics of statistical modeling. At the end of the course students will be able to generate research questions that could be answered with data and will engage in the cycle of data analysis: exploring variation, modeling variation, evaluating their models, and communicating the results of what they have learned from data analysis.

*1978 ADVANCED PLACEMENT CALCULUS AB
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 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.

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 Algebra II (or 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 Precalculus or AP Calculus in rising 11th or 12th 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.

1999 INTRODUCTION TO CYBERSECURITY
Offered in grades 10-12 .5 credits
Class meets 6 periods per cycle, 1 semester
Recommended: 80% in Algebra I
This (.5 credit course) is a pilot for Spring 2026. This half year class will introduce students to key concepts in cybersecurity, the history of cyber threats and methods of data protection. Students will investigate strategies to identify and protect against security threats such as hackers, eavesdropping and network attacks. The basics of cryptography and logical reasoning will be explored. The students will also explore cyber careers and current events in cybersecurity. This course does not require any prerequisite knowledge in computing or cybersecurity. Much of the course will center on student presentations, discussions and virtual labs. ***Ethics agreement must be signed by all students and parents during the first 2 weeks of class.**

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 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 selected Wednesday evening rehearsals is **required**.
Requirements - 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 selected Wednesday evening rehearsals is **required**.

Requirements - 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, and be repeated all four years as schedule allows.

0968 MUSIC THEORY FUNDAMENTALS
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. Understanding of music notation and theory is encouraged, but it is not a prerequisite.

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	Science Pathway 1	Science Pathway 2	Science Pathway 3
9	Environmental Science	Honors Environmental Science	Honors Biology and Accelerated Environmental Science
10	Biology (Academic)	Biology (Honors)	Chemistry options: Academic, Honors or Dual Enrollment Elective options: Hydroponic Farming
11	Dual Enrollment General Chemistry, Academic Chemistry, Chemistry in the Community Elective Options: Hydroponic Farming, Oceanography	Chemistry options: Academic, Honors or Dual Enrollment Elective options: Hydroponic Farming Oceanography	Physics options: Honors or Academic Elective options: Forensic Science, Hydroponic Farm AP options: Chemistry, Environmental Science, Biology
12	Academic Physics Conceptual Physics AP Sciences Oceanography Forensic Science	Honors Physics Academic Physics AP Science Anatomy & Physiology Forensic Science Oceanography	AP Sciences: Biology, Chemistry, Physics Elective Options: Anatomy & Physiology, Forensic Science, Oceanography

*0505 ENVIRONMENTAL 9 SCIENCE
Offered in grade 9 1.0 credit
Class meets 6 periods per cycle, all year
Academic Environmental Science is a hands-on, activity based course designed to engage students to become more environmentally literate. The year begins with a review of the nature of science, then continues through taxonomy and ecosystems to better prepare students for the Biology Keystone they will be taking the following year. The remainder of the year will focus on populations, watersheds, wetlands, water and air pollution, climate change and energy resources. Academic Environmental Science is constantly incorporating current events and discussions pertaining to humans' impact on the environment and ways to mitigate our effect on the Earth. This class involves the use of dissection.

*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. This class involves the use of dissection.

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 6 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. This class involves the use of dissection.

*0510 BIOLOGY HONORS
Offered in grades 9 & 10 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: 9th grade students must have a 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. This class involves the use of dissection.
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. This class involves the use of dissection.

*0514 CHEMISTRY IN THE COMMUNITY
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 or Algebra II. (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. Exception: an 82% or above in Algebra II would fully satisfy the math requirement for DE Chemistry
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 previous charge was $173/credit. **An increase in the charge per credit may be expected for 2025-26, 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 transferable" 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% or better in Honors Biology (or 90% in Academic Biology) AND 80% or better in Honors Algebra I (or 90% in Academic Algebra I) AND 80% in Honors Geometry (or 90% in Academic Geometry).
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 Oceanography. This will focus on the importance of the oceans to humans, as well as the impact of human activities on the oceans. The course will cover a wide range of topics including Marine Biology (Shark Week), Marine Ecosystems, Marine Resources and Marine Pollution, and Coastal changes.

*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 or Chemistry in the Community
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. Students will use basic algebraic functions and equations in this course.

*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 any ONE of the following: 70% in Honors Algebra II/Trig (80% Academic), 70% Hon. Pre-Calc. (80% Academic) (or higher level math course), 80% in Algebra III/Trig, 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.

0565 FORENSIC LAB SCIENCE
Offered in grades 11, 12 Credits: 0.5
Class meets 6 days a cycle for half of the year
Requirements: Successful completion of biology and chemistry (75% or higher).
The Forensics Lab course will turn the students into CSI investigators as they navigate through a simulated "Who Done It?" scenario. Through chemical analysis of multiple pieces of evidence left at the scene, students will meticulously build a case and will determine which one of the suspects is the perpetrator. Activities will include analysis of handwriting and fingerprints, fiber and hair samples, trace DNA and residue powders, and DNA Electrophoresis. The course will also include Organic Chemistry labs; including fractional distillation to identify contents in a mystery mixture, melting points of different compounds, and infrared spectroscopy to analyze counterfeit printing.

0560 HYDROPONIC FARMING
Offered in grades 9-12 0.5 credit
Class meets 6 periods per cycle, 1 semester
Requirements: 75% or better in Environmental Science or 9th grader currently taking Biology
Are you interested in learning how to grow plants with only water and nutrients without soil? Explore Methacton's own hydroponic farm by using advanced vertical farming techniques. Learn the positives and negatives to all types of farming and their effects on the environment, biodiversity, and society. Students will complete labs in the classroom while also having hands-on experience working in the hydroponic farm. This course is designed to cover how plants can be grown hydroponically, how the scientific method is not a linear process and how hydroponic farming has benefits to society. Emphasis will also be placed on business, marketing, computer science and mathematics.

*This class counts as a STEM (Science, Technology/Computers, Engineering, Math) Requirement.

0570 INDEPENDENT STEM RESEARCH
Offered in grades 9-12 .25 credits
Class meets 3 periods per cycle, 1 semester
Requirement: None
Students will engage in STEM research on the topic of their choosing, and follow the ISEF International format for pre-college STEM research. Students have the option of participating in a multitude of STEM Research competitions from PJAS, MCSRC, Google Science Fair, Regeneron Fairs/Biogenious Fairs. Participation is encouraged in at least 1 competition but not a condition of passing.

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: 83% average in Algebra II/Trig. – Honors or 93% average in Algebra II/Trig. **and**
85% 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 equilibriums, 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 97% in Academic Biology and 82% average in Honors Chemistry or 85% average in Dual Enrollment Chemistry or 87% 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
Students should have completed or are concurrently taking AP Calculus AB
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
+ Intro to Biotechnology (Semester 1) and Techniques and Instruments in Biotech (Semester 2)
(These are <u>Dual Enrollment</u> Opportunities)
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.

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) Global History I, year	(0202) Global History I Honors, year (*+1971) AP Human Geography, year
10 required	(0204) Global History II, year	(0205) Global History II Honors, year (*+1971) AP Human Geography, year (*+1969) AP European History, 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 or 3 periods per cycle for the year (0263) Sociology, one semester (0264) Criminal Justice, one semester	
Elective Grades 11-12	(0239) Women in America, one semester or 3 periods per cycle for the year	(+1976) Advanced Placement Psychology, year (*+1971) AP Human Geography, year (+1969) AP European History, year
Elective Grade 12	(0241) Forensic Psychology, one Semester	

General Social Studies Requirements and Prerequisites

- The General Social Studies Requirements and Prerequisites DO NOT apply to Advanced Placement Human Geography (9th grade), Advanced Placement European History (10th grade), Advanced Placement Psychology, or Forensic Psychology. See Course Descriptions.
- **AP Human Geography** is the **first** AP Social Studies course available to students to take in 9th or 10th grades and is a replacement course for either Global History I Honors or Global History II Honors.
- 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.

0206 GLOBAL HISTORY I
Only available to grade 9 1.0 credit
Class meets 6 periods per cycle, all year

The Global History I curriculum provides students with the knowledge and skills to begin to understand the complexities of the world through different perspectives. Students will examine standards-based themes including conflict and cooperation between groups and individuals, influences of continuity and change, and the role of important people & places in history. The many developments that have shaped our world and their cultural legacies will be examined, which will help students navigate today's globalized world. The content will focus on early empires of the world, the rise of the modern world, industrialization, nationalism and imperialism, and the World Wars.

*0207 GLOBAL HISTORY I HONORS
Only available to grade 9 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: General Social Studies Requirements and Prerequisites

Global History I Honors follows the same curricular parameters of the academic class but its content is broader in scope and more in-depth. The Honors course increases the rigor with more complex readings, greater depth of learning on particular topics, and higher level writing assignments and assessments. The Honors course expects students to be independent learners who adapt to a more rigorous workload requiring additional preparation time outside the classroom.

*+1971 ADVANCED PLACEMENT HUMAN GEOGRAPHY
*Offered in grade 9 as a replacement course for Global History I Honors 1.0 credit
or
*Offered in grade 10 as a replacement course for Global History II Honors 1.0 credit
Class meets 6 mods per cycle, all year
9th Grade Requirements: 90% or higher in Honors Social Studies: US History 8th grade AND teacher recommendation
10th Grade Requirements: 90% or higher in Global History I AND teacher recommendation
AP Human Geography is the **first** AP Social Studies course available to students to take in 9th or 10th grades.
11th-12th Grade Requirements: General Social Studies Requirements and Prerequisites

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.

*0208 GLOBAL HISTORY II
Only available to grade 10 1.0 credit
Class meets 6 periods per cycle, all year
Global History II will continue to provide students with the knowledge and skills to begin to understand the complexities of the world through different perspectives. This course will present a series of thematic studies to examine the relationship between traditional cultures and their current political, economic, and social systems.The standards-based themes of Global History I will be utilized to examine how history and culture have been influenced by the Middle East, Africa, and Asia.

*0209 GLOBAL HISTORY II HONORS
Only available to grade 10 1.0 credit
Class meets 6 periods per cycle, all year
Requirements: General Social Studies Requirements and Prerequisites
Global History II Honors follows the same curricular parameters of the academic class but its content is broader in scope and more in-depth. The Honors course increases the rigor with more complex readings, increased depth of learning on particular topics, and higher level writing assignments and assessments. The Honors course expects students to be independent learners who adapt to a more rigorous workload requiring additional preparation time outside the classroom.

*+1969 ADVANCED PLACEMENT EUROPEAN HISTORY
*Offered in 10th grade as a replacement course for Global History II Honors 1.0 credit
*Offered in 11th-12th grades as an elective course
Class meets 6 mods per cycle, all year
10th Grade Requirements: 70% or higher in AP Human Geography
11th-12th Grades Requirements: General Social Studies Requirements and Prerequisites
<u>This course has required Summer Assignments</u>
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.

*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 UNITED STATES GOVERNMENT AND POLITICS
Only available to grade 12 1.0 credit
Class meets 6 periods per cycle, all year
This course explores the three branches of government and how they interact with each other in today's world. The course also explores the Constitution and the Bill of Rights, examining how both have shaped American society. Civil rights and liberties will be discussed using various Supreme Court cases, amendments, and government actions. Students are encouraged to become participatory members in our democratic system through the rigorous study of the American political system and related current events.

*0252 UNITED STATES GOVERNMENT AND POLITICS 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 is closely aligned with both the scope and sequence of the AP Government course. Areas of focus will be on America's founding along with how each branch of government interacts with one another through the study of America's founding documents. Studies of civil liberties and civil rights will be buttressed with relevant Supreme Court cases spanning the life of the country. Students will reflect on what shapes political ideologies and belief systems, and make connections to current events through the use of data analysis, non-fiction reading, and application of scenarios in their real world context.

*+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 may have 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 (or successful completion of Psychology and teacher recommendation)

Forensic Psychology will provide an overview of criminal psychology. This course will extend on concepts learned in 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 antisocial 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 or 90% average in Psychology (0240).
***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.

0239 WOMEN IN AMERICA
Offered in grades 11 - 12 0.5 Credit
Class Meets 6 periods per cycle, 1 semester

This course is a chronological survey of the role of women in American history from the colonial period up to the modern day. It examines the experiences of women from various ethnicities and economic backgrounds. The contributions of women to the political, economic, and social development of the nation will be emphasized. The historiography and theory of the field of women's history will be a focus.

Technology Education

The Technology Education program develops creativity, critical thinking, and problem solving through innovative CAD, 3D printing and other digital fabrication design courses. These courses provide students with meaningful hands-on experiences to develop college, career-prep, and life skills. Students will develop technical skills while experiencing many open-ended design projects. Students planning careers in STEM related fields such as Engineering, Architecture, Product Design, Robotics, Manufacturing, and CAD Design are encouraged to join the program.

Students may select a one-semester course in Technology Education or select a combination of 2 progressive level courses (ex: Engineering Design 1 and Engineering Design 2) for a full year of credit in the curriculum. Students can also select a combination of 2 different Technology courses (ex: Architectural Design 1 and Engineering Design 1) to explore a variety of skills and subject content for a full year in Technology Education. To help fit science lab schedules, students are also encouraged to cascade their schedule. This allows them to take a technology education course for the remaining 5 open periods when their lab does not meet.

Recommended Sequence for Technology Education Courses

Recommended Sequence for Technology Education in Media, Engineering & CAD

Introductory	*Intermediate*	*Advanced*
0710 - Introduction to Engineering Design 2300 - Introduction to Broadcasting,News Writing & Video Editing	0761 - 3D Modeling and Printing 0743 - Engineering Design 1 0762 - Architectural Design 1	0750 - Engineering Design 2 0769 - Architectural Design 2 2301 - TV Commercials & News Reporting 2302 - The Warrior News & The Windy Hill 2303 - Movie Making & Film Festival

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

Architecture Pathway:
Introduction to Engineering Design
Architectural Design 1
Architectural Design 2
3D Modeling and Printing
Engineering Design 1

Engineering Pathway:
Introduction to Engineering Design
3D Modeling and Printing
Engineering Design 1
Engineering Design 2
Architectural Design 1

Technology Education in Media, Engineering and CAD Offerings

0710 INTRODUCTION TO ENGINEERING DESIGN
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
This is the foundation course for the technology education program. Introduction to Engineering Design focuses on Computer Aided Drawing (CAD) to develop student problem solving skills and application of the design process. Students will learn how to manage each step of the design process, with an emphasis placed on CAD design skills. Projects related to engineering and architecture will require the application of technical skills and problem solving techniques. Many activities are open-ended in which the students will be required to solve a problem without one exact solution to meet the requirements. This is an engaging course for those students who are considering a career in Design, Engineering, Architecture, or other innovative STEM related fields.

0761 3D MODELING AND PRINTING
Offered in grades 9-12 0.5 credit
Class meets 6 periods per cycle for 1 semester ***or*** 3 periods per cycle for 1 year.

Prerequisite: 75% or higher in Introduction to Engineering Design

3D Modeling and Printing provides students with an introduction to 3D Computer Aided Design (CAD) and its role in digital fabrication. Students will use 3D software to bring design projects to life using 3D printers. CAD modeling techniques and professional drafting practices will be applied throughout the course. Students will learn part creation, advanced modeling techniques, product assembly, and professional technical drawing setup using the 3D CAD software. The 3D printing process and technology will be explored along with proper model and design planning to create successful prints. Projects related to product design, engineering, and architecture will give students the chance to develop their creative abilities. Any student considering a career in Engineering, Architecture, Product Design, Robotics or other STEM related fields should strongly consider this course. This course is also very helpful for those students who pursue Scientific Research and need to create models and assemblies for display.

0762 ARCHITECTURAL DESIGN 1

Offered in grades 10-12 0.5 credit

Class meets 6 periods per cycle, 1 semester

Requirements: 75% or higher in Introduction to Engineering Design

Architectural Design will focus on designing and creating architectural plans associated with residential home design. The course presents basic principles, standards, procedures and symbols used in architectural drawing and includes the preparation of detailed working drawings for a residential structure. Basic light frame construction methods will be covered including drawings and models. Students will learn architectural interior room planning standards and will apply them to the design and creation of a custom home plan. Application of 2D CAD software and a large format printer will be used to create accurate, detailed plans. Students considering Architecture, Engineering, or Interior design are encouraged to consider this course.

0743 ENGINEERING DESIGN 1

Offered in grades 10-12 0.5 Credit

Class meets 6 periods per cycle for 1 semester ***or*** 3 periods per cycle for 1 year.

Requirements: 75% or higher in Intro to Engineering Design and 3D Modeling and Printing

Prerequisite: Geometry Math Course

Engineering Design is a challenging course focused on the application of Computer Aided Drawing skills, the engineering design process, and digital fabrication tools to create solutions for open ended design challenges. Students will apply project planning techniques, CAD, 3D printing, CNC, Laser Cutting and hands-on construction so they can brainstorm, design, build, and test prototypes to solve problems. Proper technical CAD plans featuring engineering drawing assemblies and layouts will be used to create functional models. Design challenges are constantly updated but may include the design of a Hydraulic Robot, Cardboard Chair, or Mechanical Pinball Game. This course is strongly recommended for students planning a career in Engineering, Architecture, Product Design, Robotics or other STEM related fields.

0750 ENGINEERING DESIGN 2

Offered in grades 10-12 0.5 credits

Class meets 6 periods per cycle for 1 semester *or* 3 periods per cycle for 1 year.

Requirement: 75% or higher in Engineering Design 1

Prerequisite: Geometry Math Course

This course is a highly-engaging, hands-on course where students develop solutions to complex engineering challenges. Students further develop a deeper understanding of the engineering design process, CAD modeling, 3D printing, and other digital fabrication skills. They will identify and apply common engineering project

planning and management techniques to large projects throughout the semester. Possible design challenges may include the design of a Radio Controlled car, Arduino Robot, Laser cut electronic display, and 3D printed mechanical assemblies. This course is strongly recommended for students planning a career in Engineering, Architecture, Product Design, Robotics or other STEM related fields.

0769 ARCHITECTURAL DESIGN 2

Offered in grades 10-12 0.5 credits

Class meets 6 periods per cycle, 1 semester

Requirements: 75% or higher in Architectural Design 1

Prerequisite: Geometry Math Course

Students will further develop their architectural drawing and design skills through many open ended design projects. They will build upon their CAD skills and transition to specialized 3D architectural software. Development of drawing skills and physical models will also be used throughout the course to develop skills needed to prepare for careers or college study. Students considering Architecture, Engineering, or Interior design are encouraged to consider this course.

Media and Telecommunications Offerings

2300 INTRO TO TELEVISION BROADCASTING, NEWS WRITING & VIDEO EDITING

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 2 after-school events is required. Writing 4 news articles 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. Last, students will be expected to write a monthly news article for the high school newspaper.

2301 TV COMMERCIALS & NEWS REPORTING

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 4 after-school events is required. Writing 4 news articles is required

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

Two main objectives will pervade this course: making television commercials and news reports. Students will be expected to be on location at high school events to interview and film during the semester. Classroom time will be dedicated to pre-production work: writing questions, and camera lighting and tripod assembly. Classroom time is also 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 Methacton Warrior News YouTube channel's content. Last, students will be expected to write a monthly news article for the high school newspaper.

2302 THE WARRIOR NEWS & THE WINDY HILL

Offered in grades 9-12 .5 credits

Class meets 6 mods per cycle, 1 semester

Recording 4 after-school events is required. Writing 4 news articles is required

Recommendation: An 80% or better grade in Intro to TV 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 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. Some writing will be required in this course in order to create voice over work. 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. Students will be expected to write news articles for the high school newspaper. Publishable student content will be chronicled on the Methacton Warrior News YouTube channel and/or on www.thewindyhill.org.

2303 MOVIE MAKING & FILM FESTIVAL
Offered in grades 10-12 .5 credits
Class meets 6 mods per cycle, 1 semester
Recording after-school events will more than likely 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 may collaborate to enter a film into a national contest and/or local contest as well. Homework assignments include meeting with your production team to film both on and off campus. Students will be individually assessed on their ability to write scripts, storyboards, write film treatments, direct, film and edit. Other assessments may be based on casting and acting. Production teams and/or directors 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.

World Languages

The World Language Department 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.

- 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 introductory course is designed for students beginning their study of German. Using a communicative

approach, students develop basic speaking, listening, reading, writing and grammar skills through the use of thematic vocabulary and real life situations. In addition to basic proficiency in the language, students explore various aspects of daily life, culture and geography throughout the German world. This course aims to build an appreciation of the language and a foundation for further studies in German. Successful completion of this course and a grade of 70% is required to enroll in German 2. A grade of 92% with a teacher recommendation is required for German 2 Honors.

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 is an extension of the Level I program and designed for students interested in further developing proficiency in the German language. Students expand and refine their skills acquired in German I while learning new thematic vocabulary and grammatical structures. Through a variety of activities, students gain confidence and continue to develop their speaking, listening, reading and writing skills with the goal of reaching beyond basic proficiency. Throughout the course, students engage in role plays, group work, dialogues, partner work, games and whole class activities. They also continue to explore and discuss history, geography, everyday life and culture throughout the German Speaking world, and draw comparisons to their own culture. Successful completion of this course and a grade of 70% will be required in order to continue to German 3.

0302 GERMAN 3
Offered in grades 10-12 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 2
This course is an extension of German II. Students continue to develop and increase their listening, speaking, reading, writing, and grammar skills. Information from German levels I and II will be reviewed and refined, while incorporating new grammatical structure and vocabulary with an emphasis on both presentational and interpersonal speaking. Through role plays, group work, dialogues, partner work, games and whole class activities, students learn to express themselves with greater clarity and confidence. Students also continue to explore history, geography, everyday life and culture within the German speaking world and draw comparisons to their own culture. By the end of German III, students are familiar with most of the fundamental structures of the language, and working toward an intermediate level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite to continue in German 4.

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 or 85% in German 2 Honors, with teacher recommendation
Designed for students who have successfully completed German II Honors, this course is composed of advanced speaking, reading, writing, listening and Pre-AP activities. The content builds upon the understanding and skills that students have acquired in their previous study of German while incorporating more advanced grammatical structures, conversational topics, and authentic materials. The German language is used extensively in class activities including the study of culture. Students are exposed to various types of texts as they practice speaking, listening, reading, writing and grammar within a cultural context. Activities and assessments focus on interpersonal speaking and listening, presentational speaking and writing, interpretive listening and reading, as well as grammar and vocabulary skills. By the end of the course, students will be approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 85% is a prerequisite to continue in German 4 honors.

0303 GERMAN 4
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 75% for each marking period as well as the final average in German 3
This upper-level course is the continuation of German III. Students use skills developed in previous courses in a variety of practical activities and situations, and continue to foster their growth through communication in the German language. Students are exposed to advanced-level listening, speaking, reading, writing and culture activities with an emphasis on more complex grammatical and linguistic structures. The course is taught mostly in German and students are expected to express themselves and interact with others in the target language.Throughout the course, students explore literary texts, current events, multimedia activities and also participate in role plays, dialogues, partner work, group work, and whole class instruction. By the end of the course, students are approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite for level 5 German and a 92% with a teacher recommendation is a prerequisite to continue in AP German..

0308 GERMAN 4 HONORS
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 92% average in assessments German 3 or 85% in German 3 Honors, with teacher recommendation
This course is designed for students who have successfully completed German III Honors and have a demonstrated interest in continuing the language. This course is conducted in German and enriched with advanced speaking, reading, writing, listening, grammar and Pre-AP activities. There is a strong emphasis on more complex grammatical and linguistic structures. Students will be assessed according to three modes of communication: interpretive reading and listening, interpersonal speaking and writing, and related cultural competency. Students in German 4h consistently engage in role play, partner work, small group work, literary analysis, presentational speaking, research projects, debates and whole class activities in order to foster growth. By the end of the course, students are approaching an advanced low level of proficiency. Successful completion of this course and a grade of 90% is a prerequisite to continue in future honors or AP German language classes.

+1996 ADVANCED PLACEMENT GERMAN LANGUAGE AND CULTURE
Offered in Grade 12 1.0 credit
Class meets 6 periods per cycle, all year
Required: 85% in German 4 Honors
The Advanced Placement German Language and Culture is open to qualified students who have successfully completed German 4 honors and obtained a teacher recommendation. This rigorous course is the equivalent of a university level course. The course focuses on the three modes of communication: Interpersonal, Interpretive, and Presentational while preparing students to take the AP German Language and Culture exam in May. Focusing on six themes, this course strives to promote both fluency and accuracy in language use and cultural knowledge. Throughout the course students have the opportunity to listen to and comment on authentic videos and news sources, engage in discussions and debates, give oral presentations, analyze texts, write formal emails, and research the Spanish speaking world. Authentic audio, reading, speaking and video materials are emphasized and grammar is reviewed as needed. Students are expected to complete summer assignments and daily homework.

French

0310 FRENCH 1

Offered in grades 9-12 1.0 credit
Class meets 6 periods per cycle, all year
This introductory course is designed for students beginning their study of French. Using a communicative approach, students develop basic speaking, listening, reading, writing and grammar skills through the use of thematic vocabulary and real life situations. In addition to basic proficiency in the language, students explore various aspects of daily life, culture and geography throughout the Francophone world. This course aims to build an appreciation of the language and a foundation for further studies in French. Successful completion of this course and a grade of 70% is required to enroll in French 2. A grade of 92% with a teacher recommendation is required for French 2 Honors.

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 an extension of the Level I program and designed for students interested in further developing proficiency in the French language. Students expand and refine their skills acquired in French I while learning new thematic vocabulary and grammatical structures. Through a variety of activities, students gain confidence and continue to develop their speaking, listening, reading and writing skills with the goal of reaching beyond basic proficiency. Throughout the course, students engage in role plays, group work, dialogues, partner work, games and whole class activities. They also continue to explore and discuss history, geography, everyday life and culture throughout the Francophone world, and draw comparisons to their own culture. Successful completion of this course and a grade of 70% will be required in order to continue to French 3.

0313 FRENCH 3
Offered in grades 10-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 70% for each marking period as well as the final average in French 2
This course is an extension of French II. Students continue to develop and increase their listening, speaking, reading, writing, and grammar skills. Information from French levels I and II will be reviewed and refined, while incorporating new grammatical structure and vocabulary with an emphasis on both presentational and interpersonal speaking. Through role plays, group work, dialogues, partner work, games and whole class activities students learn to express themselves with greater clarity and confidence. Students also continue to explore history, geography, everyday life and culture within the Francophone world and draw comparisons to their own culture. By the end of French III, students are familiar with most of the fundamental structures of the language, and working toward an intermediate level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite to continue in French 4.

0316 FRENCH 3 HONORS
Offered in grades 10-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement; 92% average required on assessments from the previous year in French 2 or 85% in French 2 Honors, with teacher recommendation
Designed for students who have successfully completed French II Honors, this course is composed of advanced speaking, reading, writing, listening and Pre-AP activities. The content builds upon the understanding and skills that students have acquired in their previous study of French while incorporating more advanced grammatical structures, conversational topics, and authentic materials. The French language is used extensively in class activities including the study of culture. Students are exposed to various types of text as they practice speaking, listening, reading, writing and grammar within a cultural context. Activities and assessments focus on

interpersonal speaking and listening, presentational speaking and writing, interpretive listening and reading, as well as grammar and vocabulary skills. By the end of the course, students will be approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 85% is a prerequisite to continue in French 4 Honors.

0314 FRENCH 4
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 75% for each marking period as well as the final average in French 3
This upper-level course is the continuation of French III. Students use skills developed in previous courses in a variety of practical activities and situations, and continue to foster their growth through communication in the French language.Students are exposed to advanced-level listening, speaking, reading, writing and culture activities with an emphasis on more complex grammatical and linguistic structures. The course is taught mostly in French and students are expected to express themselves and interact with others in the target language.Throughout the course, students explore literary texts, current events, multimedia activities and also participate in role plays, dialogues, partner work, group work, and whole class instruction. By the end of the course, students are approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite for level 5 French and a 92% with a teacher recommendation is a prerequisite to continue in AP French.

0317 FRENCH 4 HONORS
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 92% average required on assessments from the previous year in French 3 or 85% in French 3 Honors, with teacher recommendation
This course is designed for students who have successfully completed French III Honors and have a demonstrated interest in continuing the language. This course is conducted in French and enriched with advanced speaking, reading, writing, listening, grammar and Pre-AP activities. There is a strong emphasis on more complex grammatical and linguistic structures. Students will be assessed according to three modes of communication: interpretive reading and listening, interpersonal speaking and writing, and related cultural competency. Students in French 4h consistently engage in role play, partner work, small group work, literary analysis, presentational speaking, research projects, debates and whole class activities in order to foster growth. By the end of the course, students are approaching an advanced low level of proficiency. Successful completion of this course and a grade of 90% is a prerequisite to continue in future honors or AP French language classes.

+1995 ADVANCED PLACEMENT FRENCH LANGUAGE AND CULTURE
Offered in Grade 12 1.0 credit
Class meets 6 periods per cycle, all year
Required: 85% in French 4 Honors
The Advanced Placement French Language and Culture is open to qualified students who have successfully completed French 4 honors and obtained a teacher recommendation. This rigorous course is the equivalent of a university level course. The course focuses on the three modes of communication: Interpersonal, Interpretive, and Presentational while preparing students to take the AP French Language and Culture exam in May. Focusing on six themes, this course strives to promote both fluency and accuracy in language use and cultural knowledge. Throughout the course students have the opportunity to listen to and comment on authentic videos and news sources, engage in discussions and debates, give oral presentations, analyze texts, write formal emails, and research the Francophone world. Authentic audio, reading, speaking and video materials are emphasized and grammar is reviewed as necessary. Students are expected to complete summer assignments and daily homework.

Spanish

0330 SPANISH 1
Offered in grades 9-12 1.0 credit
Class meets 6 periods per cycle, all year
This introductory course is designed for students beginning their study of Spanish. Using a communicative approach, students develop basic speaking, listening, reading, writing and grammar skills through the use of thematic vocabulary and real life situations. In addition to basic proficiency in the language, students explore various aspects of daily life, culture and geography throughout the Spanish-Speaking world. This course aims to build an appreciation of the language and a foundation for further studies in Spanish. Successful completion of this course and a grade of 70% is required to enroll in Spanish 2. A grade of 92% with a teacher recommendation is required for Spanish 2 Honors.

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 is an extension of the Level I program and designed for students interested in further developing proficiency in the Spanish language. Students expand and refine their skills acquired in Spanish I while learning new thematic vocabulary and grammatical structures. Through a variety of activities, students gain confidence and continue to develop their speaking, listening, reading and writing skills with the goal of reaching beyond basic proficiency. Students engage in role plays, group work, dialogues, partner work, games and whole class activities. They also continue to explore and discuss history, geography, everyday life and culture throughout the Spanish-Speaking world, and draw comparisons to their own culture. Successful completion of this course and a grade of 70% will be required in order to continue to Spanish 3.

0333 SPANISH 3
Offered in grades 10-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 70% per marking period and final course average in Spanish 2
This course is an extension of Spanish II. Students continue to develop and increase their listening, speaking, reading, writing, and grammar skills. Information from Spanish levels I and II will be reviewed and refined while incorporating new grammatical structure and vocabulary with an emphasis on both presentational and interpersonal speaking. Through role plays, group work, dialogues, partner work, games and whole class activities, students learn to express themselves with greater clarity and confidence. Students also continue to explore history, geography, everyday life and culture within the Spanish speaking world and draw comparisons to their own culture. By the end of Spanish III, students are familiar with most of the fundamental structures of the language, and working toward an intermediate level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite to continue in Spanish 4.

0339 SPANISH 3 HONORS
Offered in grades 10-12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 92% average required on assessments from the previous year in Spanish 2 or 85% in Spanish 2 Honors, with teacher recommendation
Designed for students who have successfully completed Spanish II Honors, this course is composed of advanced speaking, reading, writing, listening and Pre-AP activities. The content builds upon the understanding and skills that students have acquired in their previous study of Spanish while incorporating more advanced

grammatical structures, conversational topics, and authentic materials. The Spanish language is used extensively in class activities including the study of culture. Students are exposed to various types of texts as they practice speaking, listening, reading, writing and grammar within a cultural context. Activities and assessments focus on interpersonal speaking and listening, presentational speaking and writing, interpretive listening and reading, as well as grammar and vocabulary skills. By the end of the course, students will be approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 85% is a prerequisite to continue in Spanish 4 Honors.

0334 SPANISH 4
Offered in grades 11,12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 75% for each marking period as well as the final average in Spanish 3
This upper-level course is the continuation of Spanish III. Students use skills developed in previous courses in a variety of practical activities and situations, and continue to foster their growth through communication in the Spanish language. Students are exposed to advanced-level listening, speaking, reading, writing and culture activities with an emphasis on more complex grammatical and linguistic structures. The course is taught mostly in Spanish and students are expected to express themselves and interact with others in the target language.Throughout the course, students explore literary texts, current events, multimedia activities and also participate in role plays, dialogues, partner work, group work, and whole class instruction. By the end of the course, students are approaching an intermediate mid-high level of proficiency. Successful completion of this course and a grade of 75% is a prerequisite for Spanish 5 and a 92% with a teacher recommendation is a prerequisite to continue in AP Spanish.

0340 SPANISH 4 HONORS
Offered in grades 11, 12 1.0 credit
Class meets 6 periods per cycle, all year
Requirement: 92% average required on assessments from the previous year in Spanish 3 or 85% in Spanish 3 Honors, with teacher recommendation
This course is designed for students who have successfully completed Spanish III Honors and have a demonstrated interest in continuing the language. This course is conducted in Spanish and enriched with advanced speaking, reading, writing, listening, grammar and Pre-AP activities. There is a strong emphasis on more complex grammatical and linguistic structures. Students will be assessed according to three modes of communication: interpretive reading and listening, interpersonal speaking and writing, and related cultural competency. Students consistently engage in role play, partner work, small group work, literary analysis, presentational speaking, research projects, debates and whole class activities in order to foster growth. By the end of the course, students are approaching an advanced low level of proficiency. Successful completion of this course and a grade of 90% is a prerequisite to continue in future honors or AP Spanish language classes.

+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
The Advanced Placement Spanish Language and Culture is open to qualified students who have successfully completed Spanish 4 honors and obtained a teacher recommendation. This rigorous course is the equivalent of a university level course. The course focuses on the three modes of communication: Interpersonal, Interpretive, and Presentational while preparing students to take the AP Spanish Language and Culture exam in May. Focusing on six themes, this course strives to promote both fluency and accuracy in language use and cultural knowledge. Throughout the course students have the opportunity to listen to and comment on authentic videos

and news sources, engage in discussions and debates, give oral presentations, analyze texts, write formal emails, and research the Spanish speaking world. Authentic audio, reading, speaking and video materials are emphasized and grammar is reviewed as needed. Students are expected to complete summer assignments and daily homework.

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)
Requirement: An application form must be completed and approved by the Yearbook sponsors prior to registering for this course. (https://tinyurl.com/yjybt2gv)
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 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. Students will arrange 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 Dr. Maffei (SMaffei@methacton.org), 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.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, Dr. Maffei, and providing their own transportation.

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

3913 GIFTED SEMINAR - Students must have a GIEP to enroll in this course.
Class meets 3 periods per cycle, all year .5 credit
The gifted seminar class is scheduled for students 9-12. The focus of each grade level curriculum is noted below.

Grade 9
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.

Grade 10
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.

Grade 11
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.

Grade 12
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 the end of one school year until the end of the next. This credit helps them to meet elective credit for graduation. Questions can be addressed to the Counseling Department.

Dual Enrollment Programs

Methacton High School has partnerships with three institutions for Dual Enrollment opportunities for students. Students may receive both college and high school credit for the successful completion of the dual enrollment course. **MHS advises that each student research the schools interested in attending post-high school to verify the transferability of Methacton's Dual Enrollment, MCCC, or HACC's course credits. All colleges/universities do not always take DE class credits and students should research potential transferability to the institution in which they are interested.** Given that there are financial obligations to dual enrollment courses, if you are interested in enrolling but have financial hardship, please reach out to your school counselor.

North Montco Technical Career Center (NMTCC) courses: Methacton students have the opportunity to apply for dual enrollment courses offered through North Montco Technical Career Center: DE Intro to Biotech, DE Techniques and Instruments in Biotech, DE Human Body in Health and Disease and DE Health Sciences. All programs are very competitive with an application process. These programs are available to all NMTCC sending schools. The classes are delivered on site at NMTCC or at a local hospital.

Montgomery County Community College (MCCC) courses:
Methacton High School offers dual enrollment courses through Montgomery County Community College. Asynchronous course options include: DE Introduction to Education, Macroeconomics, and Microeconomics. DE Chemistry is offered on-site at MHS through MCCC. Our instructors are certified by MCCC to deliver this program. Students who enroll in DE Introduction to Education will be required to obtain clearances as well as complete approximately twenty (20) hours of classroom observations.

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**.**

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 CHEM 121). The previous charge was $191.00 for the course (plus the cost of the text). **An increase in the charge per credit is expected for 2025-26, but is not yet available.** These fees are payable directly to MCCC**.** Students are also responsible for purchasing the textbook and any supplemental items requested by the instructor.

NMTCC DE COURSE OFFERINGS:

+DE NMBIT120 INTRO TO BIOTECH (SEM 1)
+DE NMBIT123 TECHNIQUES AND INSTRUMENTS IN BIOTECH (SEM 2)
8 MCCC Credits 1.1 Weighting; 2 High School Credits
Taught on-site at NMTCC; Enrollment has a limited number of seats and is capped.
Offered in grades 11 and 12
Biomedical Technology 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. **Biomedical Technology** 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 program are required to provide their own transportation to NMTCC. If there are issues with this, please contact your school counselor at Methacton High School. **Prerequisites: Biology, Chemistry, Algebra 1 and 2, Concurrent or Prior AP Biology.**

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

MCCC DE COURSE OFFERINGS:

DE EDU 100 INTRODUCTION TO EDUCATION
3 MCCC Credits and 0.5 High School Credits
Taught asynchronously (virtual) dual enrollment
Offered in grades 11-12
This course gives prospective teachers a proper introduction to the field of education. There is a strong emphasis on present-day practices, issues, and theories while also exploring ethics and educational history. While in class, students will participate in various instructional strategies both individually and in group

settings. In addition, students will gain an educational perspective while engaging in observations in an early childhood, elementary, or secondary setting. Students are required to obtain clearances and complete approximately twenty (20) hours of classroom observations.

*DE CHEM 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 (DE CHEM 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 transferable" 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 ECO 121 --** PRINCIPLES OF ECONOMICS I: MACRO
3 MCCC Credits and .5 High School Credits for grades 11 and 12 * Online and Asynchronous*

Students will need to have taken at least Algebra II with a grade of B or higher or must have taken MAT 090 at Montco prior to taking ECO 121. Students will need to submit their transcript for review to dualenrollment@mc3.edu

Structure, operation, and performance of the American economy. The course includes the market system, national income, employment, inflation, economic growth, business cycles, fiscal policy, money, monetary policy, and international economics. (S&BS)

+DE ECO 122 -- PRINCIPLES OF ECONOMICS II: MICRO
3 MCCC Credits and .5 High School Credits for grades 11 and 12 * Online and Asynchronous*
Prerequisite – Student is required to take either ECO 121 before taking ECO 122

Analysis of demand, supply, production costs, market structures, and resource allocation. Current economic policies and problems and other special topics such as government regulation, income distribution, and labor economics.

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 support. 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 2025-2026 school year, registration for the Advanced Placement Exams will occur in the Fall. This is a change implemented by the 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 2025.**

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.

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 LANGUAGE AND CULTURE
+1995 AP FRENCH LANGUAGE AND CULTURE
+1996 AP GERMAN LANGUAGE AND CULTURE
+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. Spiewak's office.

NORTH MONTCO TECHNICAL CAREER CENTER INFORMATION

North Montco Technical Career Center (NMTCC) offers 21 programs within 7 cluster areas including: Construction Trades, Cosmetology, Culinary Arts, Engineering/Manufacturing, Health & Human Services, Power & Transportation and Visual Communications. The school serves approximately 1,100 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.

Students have the opportunity to enroll in the Honors level course of their CTE program. The Honors course is for 12th-grade students who have demonstrated a high level of interest and achievement in their program and who aspire to an advanced level of learning. The course is challenging, more demanding, provides multiple opportunities for students to take greater responsibility for their learning, and has requirements beyond those of the standard CTE courses within their program. Students in the Honors course will be exposed to industry-related advanced work, rigorous study of CTE subject matter with embedded academic content, and practical application of knowledge and skills to work-based situations. Students must meet the required prerequisites and submit a completed Academic Teacher Recommendation form during their 11th-grade year to be considered for the Honors level course.

CONSTRUCTION TRADES CLUSTER

Construction Carpentry

Skilled carpenters are in great demand! The Construction Carpentry program provides thorough instruction

through hands-on projects and various shop demonstrations. Don't be afraid to try the Construction Carpentry program even if you've never picked up a tool before. The program covers instruction in the safe and proper use of hand and power tools, and will help build your foundation for success. Students will be required to purchase items for this program at an approximate cost of $300.

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 $250.

Property Maintenance & Renovation

Property Maintenance & Renovation prepares students for career paths and employment opportunities in the construction industry through technical knowledge and skills in the building, repair, and general maintenance of residential buildings and other structures. The program provides instruction in many of the construction trades including: structural carpentry, finish carpentry, millwork, plumbing, electricity, masonry, concrete, tile setting, installing hardware, heating, ventilation, waterproofing, roofing, siding, drywall, painting, regular tool and machine maintenance, environmental control systems, and record keeping. Students learn to use hand and power tools, construction materials, estimating, blueprint reading, and construction safety. Graduates of this program are prepared for employment in construction fields or may pursue specialized training through an apprenticeship and/or postsecondary education.

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 $575.

Culinary Arts Cluster

Culinary Arts

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. Students have the opportunity to specialize in one of three areas: culinary chef, institutional (large quantity)

food preparation front of house/hospitality. 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 $200 depending on specialization.

Baking and Pastry Arts

The Baking and Pastry Arts Program strives to teach students the skills they will need to be successful both in industry and in continuing education. All of our products are handmade from scratch and solely produced by students. With knowledge of mixing methods, equipment use, and safety practices, the student will have an upper hand for entering the pastry industry. Students will be required to purchase items for this program at an approximate cost of $200.

ENGINEERING/MANUFACTURING CLUSTER

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 $45.

Computer Integrated Machining

The Computer Integrated Machining 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 $250.

HEALTH & HUMAN SERVICES CLUSTER

Biomedical Technology

Biomedical Technology is a program offered to exceptional students in both 11th and 12th grade and provides the opportunity to earn eight college credits in partnership with Montgomery County Community College. Students accepted into this program have demonstrated academic excellence and the desire for challenges to enrich their educational experience. The goal of the program is to provide the unique experience of hands-on

training within a professional biotechnology laboratory so that students can immediately and successfully contribute to a research project upon entering college.

The first semester course (BIT120) is designed to acquaint students with the diverse field of biotechnology as well as to introduce common molecular biology techniques employed in this field. Academic content, as well as laboratory work, is presented at a college-level pace and rigor that includes the subject areas of genetics, microbiology, molecular biology, and immunology. Specialized topics include genomics, bioinformatics, vaccines, stem cells, gene therapy, clinical trials, bioethics, and forensics. Training in basic laboratory safety, documentation and technical skills (pipetting, cloning, gram staining) is integrated into this course.

The second semester (BIT123) introduces students to the biotechnology workplace and the technical skills essential for working effectively in the laboratory. Students prepare solutions, maintain a professional laboratory notebook to industry standards, and develop observation skills to support critical thinking in a lab environment. Laboratory training includes PCR, spectrophotometry (DNA, protein, and enzymatic assays), electrophoresis (DNA and protein), centrifugation, genetic engineering, 96-well ELISAs and mammalian tissue culture. Instruction emphasizes safety when working with potential physical, chemical, and biological hazards in the laboratory. At the end, each student is individually prepared to enter a professional laboratory using and understanding all the tools necessary to contribute to a successful research project.

If there are issues with this, please contact your school counselor at Methacton High School. **Prerequisites: Biology, Chemistry, Algebra 1 and 2, Concurrent or Prior AP Biology.**

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.

Protective Services

The 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.

Students will be required to purchase items for this program at an approximate cost of $200.

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 the Institute for Automotive Service Excellence (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. Medium/Heavy Duty trucks and equipment require educated and experienced technicians for their maintenance and repair. 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 Medium/Heavy Duty 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 chainsaws, 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 $75.

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. Students will be required to purchase items for this program at an approximate cost of $50.

Social Media Marketing
Social media specialists and content creators communicate with the public through social media platforms that allow users to create and share content online. They run their employers' social media accounts, plan, execute and monitor social media strategies that help drive sales, brand awareness, and customer engagement. They create posts on social networks, manage general content, oversee creative design and write posts according to a brand's voice. These workers post content—such as images, text, or videos—to spark interest in a topic that relates to the brand as a whole. In addition, social media specialists and content creators follow conversations and interact with the public online. Students will also learn metrics, analytics, and the importance of social media to companies and brands. The Social Media Marketing program will offer students the opportunity to utilize their math, English, artistic, and creative thinking skills and incorporate them into a career field of high interest, which they engage in on a daily basis.

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 10^{th}, 11^{th}, and 12^{th} grade students. On the job work experience is designed for 11^{th} and 12^{th} 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 students 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.

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.

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

Eng 9 Survey	Eng 9 Survey	Acad. Eng.	Hon. Eng.	Hon. Eng.
Global History I	Global History I	Global History I	Global History I. Hon.	AP European
Environmental	DI Algebra I Part A	Algebra I	Fundamentals of Geometry	Hon. Alg. II/Trig
Algebra I	Environmental	Environmental	Hon. Environmental	Hon. Bio.*
NMTCC	World Lang. 1	World Lang. 2	World Lang. 2 Hon.	Acc. Environmental*
NMTCC PE/Health	PE YR	PE	PE	World Lang. Hon
	FCS/Finance	FCS/Finance	FCS/Finance	PE
	Electives	Electives	Electives	Health

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

Grade 10

Eng. 10 Global History II DI Algebra I Part B Acad Biology NMTCC NMTCC Health & PE FCS/Finance	Eng. 10 Global History II Geometry Acad Biology World Lang. 3 PE Health FCS/Finance Electives	Eng. 10 Hon. Global History II Hon. Alg.2/Trig. Hon. Bio. Language 3 Hon PE Health FCS/Finance Electives	AP Capstone Seminar *AP Human Geography Hon. Pre-Calc. Hon. Chemistry World Lang. 3 Hon PE FCS/Finance Electives

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

Sample Student Schedules (Upperclassmen)

Grade 11
These are only examples. Students are not obligated to take these exact combinations of courses.

Acad. Eng. 11 US & PA Alg. 2 Chem. Com. NMTCC Health & PE	Acad. Eng. 11 US & PA Alg. 2/Trig Academic Chem* World Lang. 4 Health & PE Electives	Hon. Eng. 11 US & PA Hon. Pre-Calculus Hon. Chem.* World Lang. 4 Hon. Health & PE Electives	AP Eng. 11 AP US Hist. AP Calc. AB Hon. Physics* World Lang. 4 Hon Health & PE AP Chem or other Electives

Grade 12
These are only examples. Students are not obligated to take these exact combinations of courses.

Acad. Eng. 12 US Gov. & Econ Trigonometry Probability Oceanography NMTCC PM	Acad. Eng. 12 US Gov. & Econ Pre-Calculus Acad. Physics* World Lang. 5 Electives	Hon. Eng. 12 Gov. & Econ Hon. Contemp. Calc. Hon. Physics* Hon. World Lang. 5 Electives	AP Eng. 12 AP Gov. AP Calc. BC AP Science(s) AP World Lang. Electives