

Mayfield Junior-Senior High School



All students can learn.

Course Selection Guide 2024-2025

**27 School Street
Mayfield, New York 12117
(518) 661 - 8200
mayfieldk12.com/hs**

"At the Mayfield Central School District, all students can learn."

The entire school community has the power and desire to make positive differences in the lives of our students. The mission of the Mayfield Central School is to ensure that all students will acquire the academic and social skills to enable them to function successfully as productive, law-abiding, adaptable citizens in our society. This endeavor is a partnership between the school and the home which incorporates the principles of a safe and orderly environment, a climate of high expectations for success for all students, strong instructional leadership, frequent monitoring of students' progress and effective home-school communication.

CONTENTS

General Topics	Page(s)
Telephone Directory	2
<u>Junior High Program:</u>	
Course Descriptions	3-6
<u>High School Program:</u>	
Graduation and Testing Requirements	7
Grade Promotion Policy	8
<u>Frequently Asked Questions:</u>	
Course Levels, College Credit, and Attendance	9-10
Clubs/Organizations/Sports	10
Post-Secondary Planning & PTECH	11
Course Weighting Policy	38
Course Descriptions	
Art	12 - 14
Business	15 - 16
Career and Technical Training	33 - 36
Distance Learning	32
English	17 - 18
Foreign Language	19
Health	23
Mathematics	20 - 21
Music and Performing Arts	22
Physical Education	23
PTECH	37
Science	24 - 26
Social Studies	27 - 29
Technology	30 - 31

KEY PEOPLE TO HELP YOU

Executive Principal	Mr. Joshua Santarcangelo	661-8200
Associate Principal	Mrs. Melanie O'Neill	661-8200
High School Office Secretary	Ms. Alexandra Sheldon	661-8200
School Counselor	Ms. Taylor VanSklyke	661-8215
School Counselor	Ms. Angeline Conte	661-8214
Guidance Office Secretary/Registrar	Mrs. Sarah Jones	661-8213
Director of Student Services	Ms. Jennifer Sanford	661-8274
CSE Secretary	Ms. Pam Mormando	661-8274
District Psychologist	Mrs. Lauren Lozier	661-8281
School Nurse	Ms. Janine Kilpatrick	661-8211
Attendance Liaison	Ms. Janine Kilpatrick	661-8211
School Social Worker	Ms. Rachel Restivo	661-8295
Bus Dispatcher	Mr. Craig Yaddow	661-8217
Food Services Manager	Mrs. Stephanie Edwards	661-8210
Athletic Director	Mr. Jon Caraco	661-8203
District Superintendent	Mr. Christopher Clapper	661-8207
Superintendent's Office	Ms. Stacie Anastasia	661-8207

* Feel free to call the main office at 518-661-8200 to contact employees that are not listed above. Otherwise, email them directly at last name.first name @mayfieldcsd.org

JUNIOR HIGH SCHOOL PROGRAM

Grade 7- 8

All students shall be provided instruction designed to enable them to achieve, by the end of grade eight, State intermediate learning standards through:

- English language arts, two units of study;
- Social studies, two units of study;
- Science, two units of study;
- Mathematics, two units of study;
- Career and Technical Education, one and three quarters unit;
- Physical education as required by section 135.4(c)(ii) of Commissioner's Regulations (basically, every other day);
- Health education, one half unit of study as required by section 135.3(c) of Commissioner's Regulations;
- The arts, including one half unit of study in the visual arts, and one half unit of study in music;
- Library and information skills, the equivalent of one period per week in grade seven and eight;
- Languages other than English pursuant to section 100.2(d) of Commissioner's Regulations;
- Career development and occupational studies.

Assessments Given in Grades 7 and 8:

Intermediate-level assessments aligned to the New York State Learning Standards are administered in grade 7 and 8 in English Language Arts and Mathematics and grade 8 in Science.

JUNIOR HIGH COURSE DESCRIPTIONS

ENGLISH 7

This course will focus on reading comprehension and writing skills, following the NYS ELA guidelines. Students will write a multitude of paragraph responses to analyze texts. Students will develop their writing skills in the following areas: argumentative writing, informative/explanatory writing, and text-to-text comparison essays. Other projects will include guided research and various creative writing assignments, including poetry. Students will read and analyze novels, short stories, plays, news and magazine articles. Novels include those related to the 7th grade Social Studies curriculum, as well as of general interest to middle school students. Emphasis will be placed on continued grammar review and practice.

ENGLISH 7 Honors

Upon recommendation from elementary performance

This course will focus on reading comprehension and writing skills, following the NYS ELA guidelines. Students will compile a writing portfolio, including several literary essays and evidence of plot and literary term knowledge. Other writing projects will include a research paper and various creative writing assignments, including poetry. Students will read and analyze novels, short stories, plays, news and magazine articles. Novels include those related to the 7th grade Social Studies curriculum, as well as of general interest to middle school students. Emphasis will be placed on continued grammar review and practice. Honors English will require more rigorous reading outside of class.

SOCIAL STUDIES 7

Seventh grade social studies is an American History course that begins with the Age of Exploration and continues up to the American Civil War. In this course students will be introduced to many themes throughout American History and develop an understanding of the rich history of the United States. Students will study the economic, social, and political changes that have occurred throughout history and have helped shape the United States of America. This is a challenging course that will require hard work and organization to succeed.

SOCIAL STUDIES 8

Open to students who have passed Social Studies 7

This course is a continuation of the 7th grade United States History and Geography course. The content covered begins with the Civil War and ends with current topics in U.S. history. Students will continue to enhance their reading, writing, and analysis skills aligned with the New York State social studies standards.

N-GEN MATH 7

In this course students expand their study of ratios, rates, proportional relationships, and percentages. Connections are made between fractions, decimals, and percentages as a way to measure portions of the whole. Students learn to operate with negative numbers and understand why the operations work as they do. Students increase their knowledge of algebra by modeling situations with two-step linear equations and linear inequalities. Students extend their ability to answer statistical questions by using quartiles and box plots to compare samples. Students understand how to use a variety of models, such as tree diagrams, to analyze compound probability problems. Finally, students explore the geometry of angles and triangles. This course is aligned to the New York State Next Generation Mathematics Learning Standards.

MATH 7 Honors

This seventh grade class covers prime factorization, order of operations, fractions, decimals, percentages, exponents, squares, roots, proportions, equations, graphing, shapes, objects, similarity, congruence, angles, area, volume, perimeter, inequalities, using a protractor and ruler, and circles. This class will also be covering topics from the 8th grade curriculum in order to prepare them to enter the Regents Integrated Algebra course. The Math 7 honors curriculum is an accelerated and more advanced version of the Math 7 course. Topics will be covered in a vigorous manner and students are expected to maintain an average of at least an 85. Students need to be recommended by their sixth grade math teacher for this course.

N-GEN MATH 8

Open to students who have passed Math 7

In this course students increase their ability to use algebra to solve problems, including the solution of equations with variables on both sides. Extensive work is done in geometry to understand rigid motions, dilations, and their connections to congruent figures, symmetry, and similarity. The equation of a line in the coordinate plane is developed from work with proportional relationships and unit rates. Linear functions are used to model a variety of real-world scenarios. Systems of linear equations are solved graphically, by substitution, and by simple addition. More advanced topics in algebra, such as negative exponents, roots, and solving simple quadratic equations are learned and applied, especially with the Pythagorean Theorem and with scientific notation. Geometric modeling is done with circles, cones, and spheres as well as other solids. Topics include the area formula for a circle and the volume formula for cones and spheres. This course is aligned to the New York State Next Generation Mathematics Learning Standards.

COMMON CORE ALGEBRA I

1 Unit

Open to students entering grade 8 who have earned a final grade of 90 or above in Math 7 Honors with recommendation of their teacher. Open to students entering grade 9 who have earned a final grade of 80 and above in Math 8 and a Level 2 or higher on the NYS Math 8 Assessment.

In this course students will explore a variety of topics within algebra including linear, exponential, quadratic, and polynomial equations and functions. Students will achieve fluency in solving linear and quadratic equations as well as with manipulation of polynomials using addition, subtraction, multiplication, and factoring. Students will understand the key differences between linear and exponential functions. Students learn to model problems using algebra, functions, sequences, probability, and statistics. This course is aligned to the Common Core State Standards for Algebra I.

SCIENCE 7

This is a physical science course that covers both an introduction to chemistry and physics. The introduction to chemistry includes an introduction to matter; describing, measuring, changes in and states of, and a study of the atom, elements and the periodic table. The introduction to physics includes four main units: motion, forces and energy, light and sound, and electricity and magnetism. Throughout the course students perform many activities to enhance their understanding of the science concepts involved. One project is assigned each quarter to help enrich and assess the students' knowledge of the science concepts.

SCIENCE 8

Open to students who have passed Science 7

Students will study the activities and chemistry of living things. This includes the composition of living things, plants, animals (vertebrates/ invertebrates), as well as asexual and sexual reproduction, heredity and genes, nutrition, major body systems, ecology and conservation. Students also learn how to properly use the microscope

REGENTS LIVING ENVIRONMENT

1 Unit

Open to students in grade 8 who have earned a final grade of 95 or above in Science 7 and have a recommendation by their 7th grade science teacher

This inquiry-based Regents level high school course surveys various biological topics including, biochemistry, cytology, genetics, reproduction and development, anatomy and physiology, and ecology. Students complete various activities with a focus on relevant topics that students will be able to use in their daily lives. The New York State Regents Exam in Living Environment is taken at the end of this course upon successful completion of lab time. Eighth grade students with a 95 or above average in science 7, as well as a recommendation from their science teacher, are allowed to accelerate into this high school course.

COMPUTER APPLICATIONS

Required for all seventh grade students

This is an introductory twenty week course designed to teach middle school students how to use the MS Office Suite to complete school projects and personal tasks. Students will develop touch typing skills, create and format word processing documents, solve problems in a spreadsheet, present ideas and facts in a slide show, organize information in a database and design basic desktop publishing documents. Students will also learn about online research techniques, Internet safety and cyberbullying.

TECHNOLOGY

Required for all seventh grade students

In this twenty week course students will learn about the influence of technological systems on their total lifestyle, including home, school, and the world of work. Through study and a variety of both individual and group projects, they will explore systems such as transportation, communications, construction, manufacturing and energy and power. Emphasis is placed on individual as well as group problem solving. Students will explore both the positive and negative effects of these technological systems on their daily lives.

SPANISH LEVEL I

1 Unit

Open to students entering grade 8 and above

This course introduces students to basic speaking, listening, reading, writing and cultural language skills. Students are introduced to basic vocabulary, grammar and cultures of the areas where the language is spoken. A Proficiency Examination is given at the end of this course to fulfill the New York State 8th grade credit requirement. A passing score on the Proficiency is required to go on to Level II and to receive 8th grade state credit. All New York State students must take and pass at least one level of a world language in order to graduate, unless exempted through an IEP

ART 7

This ten week class focuses on providing students with a foundation of art that can later be applied to more advanced classes. Students learn how to use a variety of dry mediums to create observational drawings. Students also learn the basic principles and elements of design.

ART 8

This ten week course is a basic introduction to the visual arts. Students learn about the elements and principles of art, and use them to create a wide variety of projects using many different art media and techniques. Students will be expected to have an open mind and a willingness to try new things and explore their own creativity. This course will ask you to be a thinker, a creator, an artist and an art critic. A variety of different types of projects will be assigned that will give each student a taste of the kinds of things art has to offer, and help them decide if they'd like to pursue art classes at the high school level.

JR. HIGH CHOIR

Open to students entering grade 7 and above

The goal of choir is for students to enhance their knowledge and understanding of music through the use of choral singing. Students will learn that choral singing is a specific art form within music in general. Students will learn warm-up exercises to improve their vocal ability, learn to sight sing, as well as, sing compositions written specifically for choirs in many different styles. Concert attendance and participation is required, as well as any extra scheduled concerts. This class meets on an alternate day basis for the entire year.

JR. HIGH BAND

Open to students entering grade 7 and above

Students learn and apply the skills of phrasing, control, technical flexibility, balance, intonation and reading music. This course provides actual performing experience as students rehearse and perform contemporary music for concert band. Students attend band on an alternate day basis and weekly small group instruction. Attendance at all concerts and parades is required. Students may take band more than once.

EXPLORING MUSIC

Open to students entering grade 7

The major emphasis of this course is to provide students with a variety of musical experiences and activities. It is a snapshot of music courses offered at the high school level. Units of study will include Music technology, theater tech, Ukuleles, History of Rock and Roll and the influence of music in film. This course is designed to give students a basic understanding of music and to inspire an appreciation for music from a variety of genres and cultures through hands-on activities.

Phys. Ed/ HEALTH 7

All students will study health in grade seven that is integrated into their year-long physical education class. This course includes the study of decision-making, nutrition, first aid, tobacco, mental wellness, and age appropriate reproductive health. The goal of this course is to provide students with the knowledge and skills needed to live a healthy life.

Phys Ed./HEALTH 8

All students will study health in grade eight that is integrated into their year-long physical education class. This course includes the study of decision-making, disease, drugs, alcohol, tobacco, and age appropriate reproductive health. The goal of this course is to provide students with the knowledge and skills needed to live a healthy life.

FAMILY AND CONSUMER SCIENCE 7

In this full year course students learn about character development and decision making, personal budgeting, consumerism, media safety, family structures, and child development. Through projects and use of technology students will develop personal interests/strengths and relate them to the world of work. They will also have an introduction to cooking terms, techniques, and tools.

FAMILY AND CONSUMER SCIENCE 8

This twenty week class teaches students about money management and consumerism. Students will research a career of their choice and learn about the basics of entrepreneurship. They will also learn how to find a job, apply for a job, as well as good interviewing skills.

GEOGRAPHY 8

An introduction to Geography class. In this course students will learn about Basic world Geography (countries, oceans, landforms, regions) Basic U.S. Geography (states, capitals, landforms, regions), Project-based assessments, Interactive computer, web-based, and other games that make learning geography fun for the students, Challenge games (how quickly can you find? How would you get to..?).

HIGH SCHOOL PROGRAM

Grades 9-12

WHAT COURSES DO I NEED TO TAKE TO GRADUATE?

<u>Subject Area</u>	<u>Credits Required</u>
English	4
Social Studies	4
Math	3
Science	3
Foreign Language (LOTE)	1
Health	.5
The Arts	1
Physical Education	2
Electives	3.5
Total	22

Testing Requirements (score of 65 or above) for a Regents Diploma:

- English Language Arts Regents Exam
- Algebra I Regents Exam
- One Social Studies Regents Exam
(Global History or US History)
- One Science Regents Exam
(Typically Living Environment)
- Choice of one pathway below:
 - Humanities – requires a second Social Studies Regents Exam
 - The Arts – requires an approved NYSED assessment in the area of The Arts (music, art, dance, theater)
 - Bi-literacy – requires an approved Checkpoint B exam in a foreign language (LOTE) following three years of instruction
 - STEM – requires an additional Math Regents Exam (Geometry or Algebra II) or an additional Science Regents Exam (Earth Science, Chemistry or Physics)
 - Career and Technical – requires an approved certification exam within a Career Education program

An integrated course in Mathematics/Science/Technology, such as Accounting, Math Finance or Computer Programming, may be used as the third required unit of credit in math or science for a Regents Diploma only.

Testing Requirements (score of 65 or above) for a Regents Diploma with Advanced Designation:

- English Language Arts Regents Exam
- Algebra Regents Exam
- Geometry Regents Exam
- Algebra II Regents Exam
- Global History Regents Exam
- US History Regents Exam
- Living Environment Regents exam
- One additional Science Regents exam (Earth Science, Chemistry or Physics)
- Checkpoint B Foreign Language (LOTE) exam (this exam can be substituted with 5 credits in one area of the arts or business or a two year career and technical program from the Career and Technical Center)

What action did the Board of Regents take concerning the safety net for students with disabilities?

Students with disabilities can use the safety net to earn a Local high school diploma in place of a Regents diploma under certain conditions. A score of 45–54 on a required Regents exam (except ELA and Algebra) can be compensated by a score of 65 or above on another required Regents exam. In all cases, students must achieve a score of 55 or above on the ELA and Algebra Regents exams. In addition the student must pass the course in which s/he earned a score of 45–54 and have satisfactory attendance.

Will local districts still be able to award a student a Regents diploma with Honors or a Regents diploma with Advanced Designation with Honors?

Yes. A local school district may award a Regents diploma with Honors or a Regents diploma with Advanced Designation with Honors to students who achieve a combined average of 90.0 percent on all Regents examinations required for the diploma.

Will local districts be able to award a student a Regents diploma or a Regents diploma with advanced designation with an annotation of mastery in mathematics and/or science, or with a technical endorsement?

Yes. Students who complete all coursework and testing requirements for the Regents diploma with Advanced Designation, and who pass with a score of 85 or better, three commencement level Regents exams in mathematics and/or three commencement level Regents exams in science, will earn a Regents diploma with Advanced Designation, with an annotation on the diploma that denotes mastery in mathematics and/or science, as applicable. A local school district may award a student a Regents diploma, or a Regents diploma with an Advanced Designation, with an affixed technical endorsement awarded upon completion of an approved career and technical education program.

HOW IS A STUDENT PROMOTED FROM ONE GRADE TO THE NEXT?

7-12 Promotion and Grade Level Determination (Policy 4750)

The SED cohort system tracks student progress toward attainment of graduation requirements by the calendar year of entrance into ninth grade, which each school district determines. Students remain in the cohort when they pass Regents exams earlier than customary and stay in the cohort when they fail Regents exams in subsequent years. The reporting of data has become increasingly complex. In any given year, a number of students may have courses from different grade levels, depending upon prior achievement. The purpose of this policy is to set benchmarks for the determination of grade level assignments.

- A student must pass English 7 and Social Studies 7 in order to be promoted to the eighth grade. In the event a student fails *only* Math 7 or Science 7 that student will be promoted to the eighth grade, but will have to repeat and pass the failed course.
- A student must pass English 8 and Social Studies 8 in order to be promoted to the ninth grade. In the event a student fails *only* Math 8 or Science 8 that student will be promoted to the ninth grade, but will have to repeat and pass the failed course.
- A student must pass English 9, Global History 9, one high school math course, a high school science course and the Foreign Language proficiency (or the second year of study) to be promoted to the tenth grade.
- A student must pass English 10, Global History 10, the Global History Regents Exam, and the Algebra I Regents exam to be promoted to the eleventh grade.
- A student must pass English 11 and the ELA Regents exam, US History and Government and the US History and Government Regents exam, one Science Regents exam, the Algebra I Regents exam and have earned a minimum of 16 units of study to be promoted to the twelfth grade.

DO I GET A CHOICE FOR THE REQUIRED COURSES IN HEALTH AND THE ARTS?

There is a one-semester high school level Health course that all students must take. For the Art requirement you may choose one unit from among the specified course(s) listed under Art, Business, Music and The Performing Arts.

WHOM SHOULD I ASK ABOUT COURSES?

Your school counselor and teachers of subjects you are interested in are primary sources of information on courses. These staff members, as well as your parents, can help you determine post-secondary options and career interests. Putting all of this information together will help you select high school courses that will maximize your possibilities.

WILL ALL COURSES LISTED IN THIS GUIDE BE HELD?

A course may be canceled if only a few students sign up for it or if it cannot be staffed. If a course you selected is canceled, your school counselor will contact you to select another course.

WILL MY ATTENDANCE IMPACT MY COURSE GRADES?

The Mayfield Central School District has adopted a Comprehensive District Attendance Policy that complies with Section 104.1 of the Regulations of the Commission of Education. Copies of the complete Mayfield CSD Comprehensive Attendance Policy are available upon request in the main office and the Superintendent's office. Ensuring that your child attends school regularly is important to your child's academic success. Excessive absences can hinder a student's progress and the district's ability to provide for his/her educational needs. If your child is absent for three or more days consecutively, please obtain a doctor's note and provide the school with a copy.

Students with more than twelve daily absences will be ineligible to take a weighted high school class (such as an AP class or a College in the High School class) that is not required for the Advanced Regents diploma type.

CAN I CHANGE CLASSES AFTER THE START OF THE SCHOOL YEAR?

Students should think carefully when selecting courses and should consult with parents, school counselors and teachers when making their schedule. Yearly credit and course requirements as established by the Board of Education must be met. Students in grades seven through eleven must maintain a yearly schedule with at least six and a half course credits. Seniors are required to take five and a half credits in a school year.

Student schedules for the upcoming school year will be available on the student and parent portals a week before school starts. Any changes should be made prior to the beginning of the school year and after the first week of school with written parent permission. **No schedule changes will occur after the first five weeks of school, therefore, all students and parents should carefully consider the choices being made in course selection.** These guidelines are set forth in order to provide the highest quality educational experience for each of our students and to ensure adequate class size and teacher load based on initial course requests.

WHAT ELECTIVES CAN I TAKE?

All courses, elective and required, are described later on in this guide. In general, try to include courses that continue your study in existing areas and that introduce you to possible new interests.

WHAT LEVELS OF COURSES ARE AVAILABLE?

Different levels of some courses are offered to meet the needs of all, but not all courses have different levels of instruction. The levels are:

Regents

These classes are college preparatory and adhere to the New York State Regents curriculum, followed by a comprehensive Regents exam at its completion. These courses are necessary to earn a Regents diploma.

Advanced Placement

AP classes allow students to pursue college level work in high school and are academically rigorous in comparison to a typical high school course. College requirements may be waived based upon a successful grade on the Advanced Placement test given every May for the particular subject. Therefore college credit is not guaranteed by just passing the course. The AP level is available in Biology, United States History, and Computer Science Principles.

College Credit

While enrolled in a high school class, students can be concurrently enrolled in various “College in the High School Programs” earning college credits at a reduced rate of tuition, reducing the number of credits (and hence years of study) needed for their college degree while demonstrating the ability to handle college level work.

Listed below are the Mayfield courses that allow students the opportunity to concurrently enroll for college credit through Fulton Montgomery Community College – also including the corresponding college course name, course prefix and course number:

:

- English 103 — English I (ENG 103)
- AP US History – Survey of American History I and II (HIS 105 and HIS 106)
- College Government – American Political Systems (POL 101)
- Algebra II – Intermediate Algebra (MAT 120)
- College Pre-calculus – Pre-calculus (MAT 140)
- College Calculus – Calculus I (MAT 170)
- AP Biology – General Biology II (BIO 171)
- Anatomy and Physiology – Essentials of Anatomy and Physiology (SCI 136)
- Physics – Intro to Physics (SCI 161)
- Advanced Studio Art – Studio Art (ART 101)
- Accounting – Financial Accounting (ACC 101)
- Math and Financial Applications - Quantitative Business Applications (BUS 115)
- Principles of Business – Principles of Business (BUS 101)

Mayfield courses that allow students the opportunity to concurrently enroll for college credit through Syracuse University Project Advance (SUPA) – also including their corresponding Syracuse course name, prefix, and course number:

- SUPA Psychology - Foundations of Human Behavior (PSY 205)

Mayfield courses that allow students the opportunity to concurrently enroll for college credit through Rochester Institute of Technology (pending a certain course and final exam grade) – also including their corresponding RIT course prefix and course number:

- Introduction to Engineering Design– CAST- PLTW-101-88
- Principles of Engineering – CAST- PLTW-102-88

Many of the two-year Career and Technical Programs students can take in their junior and senior years at the Career and Technical Center in Johnstown offer articulated college credit. See the last two pages of this guide for more specific information.

DO I GET CREDIT FOR EVERY COURSE?

All courses offer credit when a student successfully completes the course requirements. There are some courses students must take that do not give credit. They are designed to give students instruction that will help them be successful in school. Some of these courses include Academic Intervention Services (AIS), Regents Review, Literacy and Study Lab.

HOW MANY CREDITS ARE REQUIRED EACH YEAR?

Ninth, tenth and eleventh grade students are required to carry 6½ scheduled credits each year. Seniors are required to carry 5½ scheduled credits per year. Some courses may be non-credit-bearing but would be for the benefit of the student.

HOW DO I GET EXTRA HELP IN MY COURSES?

All teachers provide extra help for their students on a daily basis. It is best when you take the initiative to ask your teachers for extra help. If necessary, you will be assigned extra help by your teacher or an administrator during the school day.

HOW DO I GET HELP WITH OTHER KINDS OF PROBLEMS?

Start by letting one of the school counselors know that you have a problem and want to speak about it. There are programs and people in the school to provide understanding, support and direction. The school cooperates with several agencies in the surrounding area that provide specific kinds of help for different problems.

WHAT CLUBS/ORGANIZATIONS ARE AVAILABLE AND HOW DO I JOIN?

There are studies that show that successful adults are more likely to have participated in co-curricular and extra-curricular outlets and athletics when they were in high school. Outside of athletics, Mayfield offers a variety of clubs for all different interests and we encourage participation.

- | | |
|----------------------------------|------------------------|
| Brainstorm | Mural Club |
| Student Council (for each grade) | National Honor Society |
| Drama Club (acting and tech) | Masterminds |
| Guitar Club | Paw Perfection |
| Jazz Band | Post Prom |
| Backpack Club | Ski Club |
| Key Club | Yearbook |
| Book Club | Chess Club |
| Coding | Stem |
| Gaming | Junior Honor Society |
| Exercise/Walking | UBelong Club |

Meeting times and dates are announced on the public address system each morning. Jazz Band and Drama require an audition, but there are jobs within drama such as promotions, direction, tech crew and set design that do not require an audition. In order to run for student government students need to get 25 signatures on a nomination petition.

WHAT SPORTS CAN I PLAY AND HOW DO I JOIN?

Mayfield competes in the Western Athletic Conference at the modified, junior varsity and varsity levels for boys and girls in the following sports:

- | | | |
|-----------------------------|----------------------------|------------------|
| <u>Fall</u> | <u>Winter</u> | <u>Spring</u> |
| Soccer | Cross-Country Skiing | Track and Field |
| Cross-Country Running | Basketball | Baseball (Boys) |
| Golf | Cheerleading | Softball (Girls) |
| Volleyball (Girls) | Bowling | |
| Swimming and Diving (Girls) | Swimming and Diving (Boys) | |

Speak with the coaches or physical education teachers one full season before the team you wish to join so that you know when sign-ups occur. Speak with the school nurse to make sure that you know the dates and times of physicals. All athletes must have a physical examination completed by the school physician before they are eligible to practice.

HOW DO I BECOME ELIGIBLE FOR NATIONAL HONOR SOCIETY?

Students qualify academically for nomination to the National Honor Society by maintaining a cumulative high school grade point average of **90.0** without any rounding up, as of the midway point of the junior year. Students must also demonstrate documented community service, leadership and character through an application process for selection to the National Honor Society. Eligible students will be notified of their academic eligibility for NHS by the chapter advisor in writing in early February of their junior year. Those eligible students will be advised on how to create an application packet. The Principal appoints a Faculty Council to review application packets and select students for membership. The induction ceremony is held in the spring of the school year. The NHS group functions as a student activity organization, engaging in community service and social functions.

WHAT KIND OF POST-SECONDARY PLANNING IS AVAILABLE?

The school counselors coordinate post-secondary planning with all students throughout the school year. Every student will create their own portfolio on Xello, an on-line software program, which helps students understand their future academic and career possibilities with assessments that build self-knowledge. Each student's unique portfolio will showcase their interests, skills and abilities and then allow them to explore hundreds of career and college options that align with their assessment results. Through a variety of grade level lessons the school counselors will give students the chance to reflect, reassess and build skills that helps them create a personalized plan throughout high school that will make for a smooth transition following graduation. Vocational training options in high school are explored in grade ten. College planning lessons are provided throughout high school that cover developmentally appropriate topics for each grade. Counselors have individual planning conferences yearly with each student and parents are always welcome to sit in with their child on those planning sessions.

HOW AND WHEN DO I APPLY TO PTECH?

Students will be introduced to PTECH in the winter of their eighth grade year. Interested students will apply for the program through the online PTECH application. The application requires recommendations from the student's school counselor and teacher. Once students apply they will be able to shadow the PTECH facility they are interested in attending and will go through an interview process. The PTECH application review committee will then select the students who will be attending. Interested students should have good attendance and behavior in order to be considered for applying.

HIGH SCHOOL COURSE DESCRIPTIONS

ART

Art, Music and Performing Arts courses satisfy the arts requirement for graduation. Five courses in art can replace the three unit foreign language requirement for the Regents Diploma with Advanced Designation.

Studio Art	1 Unit
Arts in Business	1 Unit
Ceramics I	½ Unit
Ceramics II	½ Unit
Sculpture**	½ Unit
Computer Arts & Digital Photography	½ Unit
Advanced Computer Arts & Digital Photography	½ Unit
Video Production**	½ Unit
Advertising Art*	½ Unit
Cartooning*	½ Unit
Drawing	1 Unit
Painting	1 Unit
Advanced Studio Art	1 Unit

*course offered alternating years and will be offered in the 2024-2025 school year

**course offered alternating years and will be offered in the 2025-2026 school year

STUDIO ART

1 Unit

If you like art and want to learn the basics then this is the course to take. This is a foundational course where students become familiar with tools, media, expression in art, and art philosophy. Students will also explore the foundations in drawing, painting and graphics. This course is strongly recommended prior to taking other art courses.

CERAMICS I

½ Unit

Open to students entering grade 10 and have passed Studio Art OR Arts In Business.

This course is designed for the student who is interested in working with three-dimensional forms and with clay. Students learn the nature of clay and make clay creations through hand building, molds, and the use of the potter's wheel. Preference will be given to students completing a sequence in art.

CERAMICS II

½ Unit

Open to students who have passed Ceramics I

Continue working with clay and making creations using handbuilding (coil, slab, pinch) as well as working on the pottery wheels. This course is designed for the motivated, creative student who is interested in working with clay. Preference will be given to students completing a sequence in art.

SCULPTURE

½ Unit

Open to students entering grade 10 and have passed Studio Art OR Arts In Business.

Course offered alternating years and will be offered in the 2025-2026 school year

Working with clay, wood, paper, stone or other inanimate objects, students are introduced to basic design principles, layout and composition as applied to three-dimensional subjects. Students increase their spatial awareness as well as imagination. Sculptures will be both realistic and abstract.

ARTS IN BUSINESS

1 Unit

Open to students entering grade 9 as a part of the Arts in Business pathway

This is an introduction class to the Arts in Business pathway for students who wish to learn about different art career paths and learn what those careers have to offer by doing fun assignments similar to those in the business world. Students will learn and experience projects related to Digital Photography, Advertising/Marketing, Fashion Design, Interior Design, Furniture Design,

Graphic Design, and more. Students will also have the opportunity to directly interact with and hear from companies that employ people with these art skills through school visits and field trips.

COMPUTER ARTS & DIGITAL PHOTOGRAPHY

½ Unit

Studio Art or Arts in Business are recommended, but not required

Are you creative? Want to use a computer to create art? Want to use the most current version of Photoshop and Adobe Creative Suites? Like digital photography? This course includes basic digital photography, graphic design, and Photoshop to create fine and commercial art. This is a mandatory course for the Arts in Business Pathway.

ADVANCED COMPUTER ARTS & DIGITAL PHOTOGRAPHY

½ Unit

Open to students who have passed Basic Computer Arts I

This course will further help students become “career and college ready” in the Computer Arts and Digital Photography fields. Students will enhance their Adobe Creative Suite skills in digital photography, graphic design, and the use of computers to create fine and commercial art.

Prerequisite: Basic Computer Arts, Studio Art, or by teacher recommendation.

VIDEO PRODUCTION

½ Unit

Open to students entering grade 9 and above

Course offered alternating years and will be offered in the 2025-2026 school year

Have you ever wanted to be in the movies? Or create one? Here's your chance! In this class you will learn camcorder production techniques, including producing, editing, shooting, graphics, etc. Includes hands-on experience in the operation of audio and video in the production of video projects. We will be using Adobe Premiere to edit a wide variety of video projects.

ADVERTISING ART

½ Unit

Open to students who have passed Studio Art

Course offered alternating years and will be offered in the 2024-2025 school year

In this half year course students will learn about how art is used in the media (to sell products and services and to share information). Artwork in this class will be geared towards creating eye-catching posters and different sized advertisements using various art media such as colored pencil, markers, paint and pastels, as well as the computer.

CARTOONING

½ Unit

Open to students who have passed Studio Art OR Arts in Business

Course offered alternating years and will be offered in the 2024-2025 school year

Ever wanted to create your own cartoon characters? Or create your own comic book? Or short animation? If so, this is the class for you. Students will learn the basics of creating comic strips, political cartoons, animation, and a short comic book. This course will require students to write storylines for the cartoons; it is more than just a drawing class.

DRAWING

1 Unit

Open to students who have passed Studio Art

This is an advanced course that focuses on exploring new techniques of drawing and building up existing drawing skills. Students will do several long term drawing assignments over the course of the year and will be working in charcoal, pencil, pastels, pen and ink, and will learn how to draw more realistically.

PAINTING

1 Unit

Open to students who have passed Studio Art

If you want to learn how to paint better, but don't know how, this course is for you! This course will explore the basics of different painting mediums including acrylic, ink, watercolor, and oil paint. Students will use the principles and elements of art to paint creative compositions. Assignments will include portraits, landscapes, still life, surrealism, and abstract painting techniques.

ADVANCED STUDIO ART**1 Unit and 3 possible college credits**

Open to students entering grade 11 and above who have teacher recommendation

Want college credit for art? Want to continue working on your own style or skills? This course is for you. This course is geared toward students who want to explore a concentration in art. The focus will be on producing a concentration of work in a variety of media (drawing, painting, sculpture). Students will be able to include this artwork in their portfolio required for college admission. There is an option for students to get college art credit in Studio Art (ART 100) for this course through FMCC at a reduced rate of tuition. Students can take this class for or not for college credit

BUSINESS

There are many practical and useful business electives students can choose. Career and Financial Management is a recommended half year course for all students to take before graduation.

Career and Financial Management	½ Unit
Marketing and Social Media	½ Unit
Coding for Beginners	½ Unit
Fundamentals of Programming and Computer Science	½ Unit
Accounting*#	1 Unit
Math and Financial Applications** #	1 Unit
Principles of Business	1 Unit
College and Career Readiness	½ Unit

*course offered alternating years and will be offered in the 2024-2025 school year

**course offered alternating years and will not be offered until the 2025-2026 school year

#course can be used as a third year math credit for the Regents diploma requirement

CAREER AND FINANCIAL MANAGEMENT

½ Unit

Open to students entering grade 9 and above

During this half year course, students will complete several hands-on projects using the computer. Students start the course off by exploring occupations and career paths. Students learn how to evaluate themselves so that they can make good career decisions. The second component is a simulation that teaches financial responsibility. Students learn to use a checkbook, budget money, and make good financial decisions. Every student can benefit from this course and the real world skills it provides.

COLLEGE AND CAREER READINESS

½ Unit

Open to students entering grade 9 and above

The purpose of this half year fall semester course is to help prepare students for “life” after high school. Students will learn how to select college majors based on their interests and abilities, research various college options and use effective transitioning techniques into college such as development of good study skills, discipline and goal setting, as well as an understanding of academic, social and personal responsibilities. The second portion of this course will focus on workforce readiness skills. These skills include reading workplace documents, career-ready math skills, and problem-solving and situational judgment.

MARKETING AND SOCIAL MEDIA

½ Unit

Open to students entering grade 9 and above

Students will learn about the processes involved in marketing (how companies take a concept and get it to a customer, understanding the aspects of product development, pricing and promotion). Students will then learn how marketing has changed in the Digital Age as businesses use social media platforms to develop their brand, increase awareness, and increase sales. Students will also develop ways to use social media to market their own business ideas.

CODING FOR BEGINNERS

½ Unit

Open to students entering grade 9 and above

Interested in gaming, programming, or just computers in general? In this half year course students learn to program their own interactive stories, games, and animations and share their creations with others in an online community. This is a beginner’s level course; there is no prior knowledge to app development and programming needed. Students will use different programs and apps including Scratch throughout the course of the semester. Scratch is a “learn to program” app that helps young people learn to think creatively, reason systematically, and work collaboratively — essential skills for life in the 21st century.

FUNDAMENTALS OF PROGRAMMING AND COMPUTER SCIENCE

½ Unit

Open to students who have passed Coding for Beginners

This course expands on Coding for Beginners and is a technical introduction to the fundamentals of programming and computer science. Students will expand their knowledge of computational problem solving using design strategies, computer algorithms, and effective testing and debugging. Students will design creative tasks driven by their interests while learning to program in Python, a popular, widely-used programming language.

ACCOUNTING**1 Unit and 4 possible college credits**

Open to students entering grade 10 and above

Course offered alternating years and will be offered until the 2024-2025 school year

Students learn about the keeping of business and financial records. Course content encompasses the complete accounting cycle. Upon completion of this course, students should be able to keep a simple set of books. Students planning to work in a business or to major in business in college will find this course very beneficial. This course can be used as a third mathematics course. Students can concurrently enroll in Financial Accounting (ACC 101) through FMCC at a reduced rate of tuition and earn four college credits, if they choose.

MATH AND FINANCIAL APPLICATIONS**1 Unit and 3 possible college credits**

Open to students entering grade 10 and above

Course offered alternating years and will not be offered until the 2025-2026 school year

This full year course is a specialized interdisciplinary business course that applies mathematics to personal business situations. This course involves the application of mathematics to the study of statistics, checking accounts, payroll, discounts, interest rates, annuities, investments, credit (loans and mortgages), depreciation, inventory, financial statements, insurance, stocks and bonds. This course is designed to prepare students for college level business programs, to understand the complex financial world they will encounter during their lives and work extensively with spreadsheets. This course can fulfill part of the third year mathematics requirement. Students can concurrently enroll in Quantitative Business Applications (BUS 115) through FMCC at a reduced tuition rate and earn three college credits for this course, if they choose.

PRINCIPLES OF BUSINESS**1 Unit and 3 possible college credits**

Open to students entering grade 11 and above

This full year course introduces students to the exciting world of business. Students will learn the language of business, multiple areas of study, and career opportunities that are available to business majors. The course covers topics including, but not limited to: entrepreneurship, marketing, management, human resources, economics, global business, accounting and finance. Additionally, this course is designed to introduce students to systems, techniques and best practices that will help students be successful in business courses and their careers. This course uses case studies and allows students to attend field trips. Students can concurrently enroll in Principles of Business (BUS 101) through FMCC at a reduced tuition rate and earn three college credits, if they choose.

ENGLISH

All students must earn four units of English. Required courses are English 9, English 10, English 11, and a choice of senior year English. All students take the Regents Examination in English Language Arts in June of grade 11.

English 9	1 Unit
English 9 Honors	1 Unit
English 10	1 Unit
English 10 Honors	1 Unit
English 11	1 Unit
English 11 Honors	1 Unit
Senior English	1 Unit
English 103	1 Unit

ENGLISH 9

1 Unit

Open to students who have passed English 8

This course is structured using the Next Generation Standards for ninth grade English. Reading comprehension, vocabulary development and writing are emphasized throughout the year. NYS Next Generation Standards are incorporated through the use of a variety of texts. Quick writes, mid-unit, and end-of-unit writing assessments are implemented. Students also read and analyze short stories, novels, and plays, including the works of Ray Bradbury and Edgar Allen Poe. Novels include, but are not limited to *Anthem*, *To Kill a Mockingbird*, and *Romeo and Juliet*.

ENGLISH 9 Honors

1 Unit

Open to students entering grade 9 based on their performance in English the previous year and teacher's recommendation

This particular course is writing intensive, faster paced and covers more material than a standard English 9 class. Standard curriculum is supplemented with more difficult texts to challenge students and begin preparation for the ELA Regents in 11th grade. The ability and commitment to read independently is vital to success in this honors course. Titles that will be covered include *To Kill a Mockingbird*, *Anthem*, *Fahrenheit 451*, and *Romeo and Juliet*. Students will be expected to continue to improve their critical thinking and analytical skills, as well as the ability to express ideas through classroom discussion and writing.

ENGLISH 10

1 Unit

Open to students who have passed English 9

This course is structured using the Next Generation Standards for tenth grade English. Students will focus on reading comprehension and literary analysis. These skills will continue to help them in their preparation for the ELA Regents in 11th grade. Writing tasks include text analysis responses, evidence based arguments, and a research paper. Vocabulary, spelling and grammar are taught within a literature text-based program.

ENGLISH 10 Honors

1 Unit

Open to student entering grade 10 based on their performance in English the previous year and teacher's recommendation

This course will use some of the texts from the regular English 10 curriculum but class will be structured to allow more student autonomy. More difficult texts will also be used in this course to challenge students to use higher level thinking skills. Students will be required to do more research, will participate in debates, and will write online discussion blogs throughout the school year.

ENGLISH 11

1 Unit

Open to students who have passed English 10

This course is structured using the Next Generation Standards for eleventh grade English. This course will focus on reading American Literature and writing both analytical and research based papers. Several novels and short story units will be covered as well as poetry and portfolio based projects. English 11 will also prepare students for the New York State Regents Examination in English Language Arts. In preparation for this exam, students will be reading and writing in accordance with the New York State Standards and the rubric's assessment.

ENGLISH 11 Honors

1 Unit

Open to students entering grade 11 based on their performance in English the previous year and teacher's recommendation

This course is structured using the Next Generation Standards for eleventh grade English. This course covers all state mandated common core Regents preparation. This class will prepare students who are interested in taking College English who possess strong critical thinking skills and a strong academic work ethic. In addition to the traditional mandated texts and writing, students will be challenged with more in-depth texts and will be expected to read independently and discuss each at a college level of inquiry.

SENIOR ENGLISH - College Track

1 Unit

Open to students who have passed English 11

This course is intended for seniors who plan on pursuing post-secondary education at a 2 or 4 year college. Students will continue developing reading comprehension, vocabulary, academic research, public speaking, and writing skills appropriate for a college education. Students will also complete a reflective senior portfolio assignment.

SENIOR ENGLISH - Career Track

1 Unit

Open to students who have passed English 11

This course is intended for seniors who plan on directly entering the workforce after high school. Students will continue developing their reading comprehension, vocabulary, public speaking, and writing skills appropriate for the workforce. Students will also complete a reflective senior portfolio assignment.

ENGLISH 103

1 Units and 3 possible college credits

Open to students who have passed the ELA Regents exam and earned a final grade of **88** in English 11 and/or have the teacher's recommendation

In ENG 103 students will learn different essay styles that can be used in any college course. The student will express ideas and thoughts in a grammatical, concise manner. In-depth study of sentence structure and voice will be stressed in each assignment. The student will learn MLA style of writing and researching for an oral and written project. The student will read published essays, short stories and other texts to familiarize themselves with the writing format and voice for each essay. Students can concurrently enroll in English I (ENG 103) for the fall semester through FMCC at a reduced tuition rate and earn six college credits for this course.

FOREIGN LANGUAGE

Students must earn at least one unit of credit in a language other than English (LOTE) in order to complete the foreign language requirement for a high school diploma. Students earn one unit of credit by passing the Second Language Proficiency Assessment at the end of grade 8, as well as the Level I course. Students wishing to earn a Regents Diploma with Advanced Designation must have 2 additional units of credit in a language other than English for a total of 3 units of credit and pass the Comprehensive Checkpoint B Exam at the end of Level III. College credit in foreign language is available for students in levels IV and V Spanish, as well as Elementary Italian I and II.

A student may also complete a five-unit sequence in career and technical education or business or the arts in place of the three credit foreign language requirement for the Regents Diploma with Advanced Designation. But most four year colleges require a minimum of two years of foreign language completed in high school for admission.

Spanish I	1 Unit
Spanish II	1 Unit
Spanish III	1 Unit
Spanish IV	1 Unit
Spanish V	1 Unit

SPANISH LEVEL I

1 Unit

Open to students entering grade 8 and above

This course introduces students to basic speaking, listening, reading, writing and cultural language skills. Students are introduced to basic vocabulary, grammar and cultures of the areas where the language is spoken. A Proficiency Examination is given at the end of this course to fulfill the New York State 8th grade credit requirement. A passing score on the Checkpoint A exam is required to go on to Level II and to receive 8th grade state credit. All New York State students must take and pass at least one level of a world language in order to graduate, unless exempted through an IEP.

SPANISH LEVEL II

1 Unit

Open to students who have passed Level I and the Checkpoint A Exam

In this course students will learn more detailed vocabulary and develop a strong grammar base. Activities include learning how to communicate in an airport, discussing past, present and future activities, discussing the environment and technology, childhood and others. The class is well suited for students who wish to pursue an Advanced Regents Diploma. A local final exam is given at the end of this level.

SPANISH LEVEL III

1 Unit

Open to students who have passed Level II

In this course students will extend conversation skills, give short presentations, read simple letters and advertisements, and write extended responses. Cultural study will continue. Topics may include fashion, household chores, travel and tourism, ecology, weather, emergency medical care, healthy living, childhood relationships and poetry. The Comprehensive Checkpoint B Examination is taken at the end of this course. Students must pass the course and the exam to be eligible for the Advanced Designation Regents Diploma.

SPANISH LEVEL IV

1 Unit and 3 possible college credits

Open to students who have passed Level III with an overall average of 85 or higher and/or a recommendation from the teacher
College credits through FMCC are only an option for Spanish IV students

This full year course is a continuation of the study of phonology, grammar, vocabulary and cultural information necessary for comprehending, speaking, reading, and writing intermediate level Spanish or Italian. Listening comprehension and speaking will be stressed. Cultures will be explored through selected readings and writing. **For Spanish students only:** Students can concurrently enroll in Intermediate Spanish I (SPA 201) through FMCC at a reduced tuition rate and earn three college credits. Sophomores need special permission of the instructor and the college to take this course for college credit.

SPANISH LEVEL V

1 Unit and 3 possible college credits

Open to students who have passed Level IV

This full year *college level* course is the final class in the elementary-intermediate college sequence. This course is an extension of Intermediate Spanish I, pursuing the study of phonology, grammar, vocabulary, and cultural information necessary for comprehending, speaking, reading, and writing intermediate level Spanish. Listening comprehension and conversation skills will be stressed. Hispanic cultures will be explored through selected reading and writing. Students can concurrently enroll in Intermediate Spanish II (SPA 202) through FMCC at a reduced tuition rate and earn three college credits for this course.

MATHEMATICS

Students must pass a minimum of three units of math to graduate. Students who have accelerated into Algebra I as eighth graders are required to take math up through Pre-Calculus. All students must pass the Algebra Regents exam to graduate. For an Advanced Regents Diploma students need to pass the Geometry and Algebra II Regents exams. Mayfield strongly encourages students to continue math throughout high school.

Pre-Algebra	1 Unit
Common Core Algebra I	1 Unit
Topics in Geometry	1 Unit
Common Core Geometry	1 Unit
Common Core Algebra II	1 Unit
College Pre-calculus	1 Unit
College Calculus	1 Unit
Applied Math	1 Unit

PRE-ALGEBRA

1 Unit

Open to students entering grade 9 who have passed Math 8

In Pre-Algebra, you will learn about and explore topics including integers, order of operations, algebraic expressions, one and two-step equations, proportions, percents, probability, geometry, and linear equations. These skills learned will serve as the basic foundation of supporting your mathematics learning throughout high school and college. This course prepares students to be mathematically literate as well as prepare them for future courses and state standardized tests.

COMMON CORE ALGEBRA I

1 Unit

Open to students entering grade 8 who have earned a final grade of 90 or above in Math 7 Honors with recommendation of their teacher. Open to students entering grade 9 who have earned a final grade of 80 and above in Math 8 and a Level 2 or higher on the NYS Math 8 Assessment.

In this course students will explore a variety of topics within algebra including linear, exponential, quadratic, and polynomial equations and functions. Students will achieve fluency in solving linear and quadratic equations as well as with manipulation of polynomials using addition, subtraction, multiplication, and factoring. Students will understand the key differences between linear and exponential functions. Students learn to model problems using algebra, functions, sequences, probability, and statistics. This course is aligned to the Common Core State Standards for Algebra I.

TOPICS IN GEOMETRY

1 Unit

Open to students who have passed the Algebra I course and Regents exam

In this course, students will begin with an understanding of the basic tools of geometry, including points, lines, and planes, and will go on to master angles and angle pair relationships, as well as polygons. Students will learn to construct proofs, and learn the relationships of perpendicular and parallel lines, as well as what constitutes congruent triangles. Students will become proficient in understanding the anatomy of triangles, as well as what makes triangles similar, and will master right triangles and basic trigonometry. Students will learn what defines a quadrilateral, and will learn the various types, as well as circles. Students will go on to learn to find the area and perimeter of various shapes, and will learn to solve for the surface area and volume of three dimensional shapes. Finally, students will learn the basic types of transformations and will learn to conduct compositions of transformations.

COMMON CORE GEOMETRY

1 Unit

Open to students who have passed the Algebra I course and Regents exam

In this course students will acquire tools to help them explore two-dimensional and three-dimensional space. These tools include Euclidean geometry, rigid motion transformations, dilations and similarity, and coordinate geometry. Students will learn how to prove various geometric facts about triangles, quadrilaterals, and circles by using axiomatic proof and coordinate geometry proof. Finally, students will model real world objects using geometric formulas for perimeter, area, and volume. Three dimensional objects such as prisms, pyramids, cones, cylinders, and spheres will be used in a variety of models. This course is aligned to the Common Core State Standards for Geometry.

COMMON CORE ALGEBRA II**1 Unit and 4 possible college credits**

Open to students who have passed Geometry and scored a 75 or above on the Algebra I Regents Exam.

In this course students will learn about a variety of advanced topics in algebra. Students will expand their understanding about functions by learning about polynomial, logarithmic, and trigonometric functions. These new functions along with linear, quadratic, and exponential, will be used to model a variety of problems, including compound interest, complex numbers, growth and decay, projectile motion, and periodic phenomena. Polynomial and rational algebra is extensively covered including advanced factoring and polynomial long division. Advanced work in probability is included that focuses on the use of conditional probability. Extensive statistics work is done to help students understand how population parameters can help to infer properties about populations. This course is aligned to the Common Core State Standards for Algebra II.

COLLEGE PRECALCULUS**1 Unit and 4 possible college credits**

Open to students who have passed the Algebra II course and Regents exam

This course will prepare students with background material for the study of calculus. Topics include relations, functions, and graphs; inequalities and absolute value; exponential and logarithmic functions; circular functions and topics from trigonometry; complex numbers, synthetic division and solution of polynomial equations. Students can concurrently enroll in Pre-calculus (MAT 140) through FMCC at a reduced tuition rate and earn four college credits for this course.

COLLEGE CALCULUS**1 Unit and 4 possible college credits**

Open to students who have passed Pre-calculus

This is an introductory course in differential and integral calculus. Fundamental concepts of functions, limits, differentiation and integration of algebraic functions and trigonometric functions are explored. Students can concurrently enroll in Analytical Geometry and Calculus I (MAT 170) through FMCC at a reduced tuition rate and earn four college credits for this course.

APPLIED MATH**1 Unit**

Open to students entering grades 11 and above who have passed the Algebra I Regents exam

This course will help the high school student prepare for “adulting” in real life. Students will learn about life skills related to earning and making money. They will learn different ways that people make money, practice reading and understanding employee earnings statements, paychecks, time card sheets, income, health insurance, deductions, and other lessons related to salary, earning and making money for different careers. Other topics include real life measurement applications, discount, tax, tip, setting up and solving proportions, working with fractions, decimals, and percentages, basic geometry, using formulas, project based learning, scaled drawings, using google applications to solve perimeter and area, and constructing graphs based on real-life data.

MUSIC AND THE PERFORMING ARTS

Art, Music and Performing Arts courses satisfy the art/music requirement for graduation.

The successful completion of five (5) courses in Art or Fine Arts will replace the three (3) year Foreign Language requirement for the Regents Diploma with Advanced Designation. A five unit sequence in Fine Arts is available by combining courses in the following areas: Art, Music and Performing Arts

Senior High Band	½ Unit
Select Choir	½ Unit
Senior High Choir	½ Unit
Music Theory	½ Unit
Piano Lab	½ Unit
Songwriting and Composition Studio	1 Unit

SENIOR HIGH BAND

½ Unit

Open to students entering grade 7 and above

Students learn and apply the skills of phrasing, control, technical flexibility, balance, intonation and reading music. This course provides actual performing experience as students rehearse and perform contemporary music for concert band. Students attend band on an alternate day basis and weekly small group instruction. Attendance at all concerts and parades is required. Students may take band more than once. Junior high students will be placed in band by teacher discretion.

SELECT CHOIR

½ Unit

Open to students entering grade 9 and above who have been selected based on audition

This is an advanced select choir comprised of students in grades 9 – 12. All members must audition for this ensemble in the spring with the Director of Choir. The core curriculum is a deeper exploration of vocal technique and sight-reading, through the study of a wide variety of choral music. The group performs two concerts a year at school with opportunities for outreach performances and competitions within the community.

SENIOR HIGH CHOIR

½ Unit

Open to students entering grade 9 and above

The goal of choir is for students to enhance their knowledge and understanding of music through the use of choral singing. Students will learn that choral singing is a specific art form within music in general. Students will learn warm-up exercises to improve their vocal ability, learn to sight sing, as well as, sing compositions written specifically for choirs in many different styles. Concert attendance and participation is required, as well as any extra scheduled concerts. This class meets on an alternate day basis for the entire year.

PIANO LAB

½ Unit

Open to students entering grade 9 and above

This yearlong, every other day course is designed to teach beginners the basics of piano. Piano Lab provides opportunities for students to start learning how to play the piano. Students will receive training in piano technique, music reading and, basic music theory and apply their growing knowledge and skills to playing pieces and songs ranging from traditional to popular songs within their level of ability. Musical skills are taught on state of the art digital pianos and students learn at their own pace.

SONGWRITING AND COMPOSITION STUDIO

1 Unit

Open to students entering grade 9 and above

In this full year class, students will have the opportunity to write, compose, and produce their own songs. Skills on lyric writing, melodies, and musical improvisation are taught in this class. Students will also learn how to use DAWs (digital audio workstations) such as soundtrap, noteflight, and garageband to write and produce music individually or collaboratively. Students will acquire hands-on experience with chords to assist them with writing and playing music. Students will get to write their own music using premade tracks/loops and other musical instruments in their writing. There will be a main focus on composing contemporary mainstream music (pop, rock, hip hop, alternative, etc.). There is no prior music experience required to take this class. All musical skills and abilities are welcome from novice to expert.

PHYSICAL EDUCATION

All students must take and pass Physical Education each year of high school. The Physical Education curriculum is designed to encourage participation for all levels of ability.

PHYSICAL EDUCATION

½ Unit

Physical education is a required course for all students. The curriculum consists of personal fitness and lifetime sport activities. Some activities include fitness testing, archery, aerobic fitness, weight training, volleyball, racquetball, tennis, golf, cross-country skiing, new games, adventure and group challenge activities, basketball and softball. All students must dress appropriately (i.e. sneakers, gym shorts, T-shirt, or sweats), and participate to the best of their ability. Students are graded 2/3 on participation and preparation; skills and written tests count 1/3.

HEALTH

HEALTH

½ Unit

Open to students entering grade 10 and above

This course provides students with essential skills and information that focus on their ability to make positive choices. Physical, mental, and social aspects of health are covered through such topics as substance abuse prevention, psychology, human reproduction (including age appropriate sex education), consumer education, human effects on the environment, disease prevention and nutrition. Each health class promotes positive interpersonal skills through group interactions and activities. This course credit is required for high school graduation.

SCIENCE

All students need to take and pass three science courses for graduation, as well as one science Regents exam. One of the three science units needs to be from the physical setting and one needs to be from the living environment setting. All ninth graders take the Regents Living Environment course, unless they accelerated into the course as an eighth grader. All tenth graders take Earth Science unless an alternative science course is recommended by a teacher or counselor based on a student's past performance. Mayfield strongly encourages students to study science throughout high school. All Regents science courses require a science lab in addition to the class. In order to qualify to take a Regents examination in any of the sciences, a student must complete 1200 minutes of laboratory experience with satisfactorily documented laboratory reports.

Regents Living Environment	1 Unit
Regents Earth Science	1 Unit
Regents Chemistry	1 Unit
Regents Physics*	1 Unit
Applied Science	1 Unit
Forensic Science	1 Unit
Anatomy and Physiology	1 Unit
Advanced Placement Biology**	1 Unit
Life and Time of Dinosaurs	1 Unit
Freshwater Biology	1 Unit

*course offered alternating years and will be offered in the 2024-2025 school year

**course offered alternating years and will not be offered until the 2025-2026 school year

REGENTS LIVING ENVIRONMENT

1 Unit

Open to students entering grade 8 who have earned a final grade of 95 in Science 7 with their grade 7 science teacher's recommendation

Open to any students entering grade 9

This inquiry-based Regents level course surveys various biological topics including, biochemistry, cytology, genetics, reproduction and development, anatomy and physiology, and ecology. Students complete various activities with a focus on relevant topics that students will be able to use in their daily lives. The Living Environment Regents exam is given in June.

REGENTS EARTH SCIENCE

1 Unit

Open to students entering grade 9 who have passed the Living Environment course and Regents exam

Open to any students entering grade 10 and above

This course covers topics in geology, mineralogy, astronomy, meteorology, topography and oceanography. Students are evaluated on labs, tests and quizzes. The class style is hands-on, lab-based learning with an emphasis on problem solving and real world applications. The Earth Science Regents exam is given in June. Required materials include a simple calculator and colored pencils.

REGENTS CHEMISTRY

1 Unit

Open to students who have passed the Algebra I Regents exam and one science Regents exam

This course includes the study of matter and energy, atomic structure, bonding, periodic table, mathematics of chemistry, kinetics and equilibrium, acid-base, oxidation-reduction, organic chemistry, and nuclear chemistry. The laboratory portion of this course involves hands-on experimentation with various chemical compounds, acids, bases, fire and combustible materials. The Chemistry Regents exam is given in June as the final exam. *If Regents Chemistry is qualifying as a student's third science (necessary for graduation) and the student has a failing average at the end of the second quarter, in an effort to ensure that they earn credit and meet the graduation requirements, the student may have be required to move to Applied (non-Regents) Science.*

REGENTS PHYSICS

1 Unit and 3 possible college credits

Open to students who have passed the Algebra II course and two science Regents exam

Course offered alternating years and will be offered in the 2024-2025 school year

The course consists of five units: mechanics, electricity and magnetism, energy, waves, and modern physics. The course also involves a number of creative projects including a mousetrap launcher, a Rube Goldberg device and a rubber band vehicle.

One goal is to expand the student's ability to solve problems alone and in small groups. The Physics Regents exam is given in June. Students can concurrently enroll to get college credit for Intro to Physics I (SCI161) for this course through FMCC at a reduced rate of tuition. Students can take this class for or not for college credit.

APPLIED SCIENCE

1 Unit

Open to students who have passed at least one science Regents exam

This full year course is a non-regents course that incorporates the science disciplines of Chemistry, Environmental Science, Earth Science, and Biology. Relating traditional knowledge to current scientific discovery and real world events will also be an area of study. Course work will include direct academic instruction as well as hands-on laboratory activities to explore the various subjects in science and show the interrelationships they have with each other.

FORENSIC SCIENCE

1 Unit

Open to students entering grades 11 and above who have passed one Regents level science classes and has been recommended by a teacher

This course will introduce students to basic scientific principles and techniques used by law enforcement agencies when they investigate a crime scene. The Forensic Science course is designed around inquiry-based performance assessments with students working in teams to solve crimes using scientific knowledge and reasoning. The course encompasses all areas of science with an emphasis on complex reasoning and critical thinking. In addition to using science skills acquired in other high school science courses, students will incorporate the uses of technology, communication skills, and language arts. A major emphasis will be put on laboratory work and portfolios in this class.

ANATOMY AND PHYSIOLOGY

1 Unit and 3 possible college credits

Open to students entering grade 10 and above who have passed the Living Environment, Earth Science, and Chemistry courses and their respective Regents exams, or have instructor permission

Anatomy and Physiology is intended for students who wish to pursue careers in areas of health such as a doctor, nurse, veterinarian, dentist, biologist, radiologist or pharmacist. Students pursuing a career in one of these fields will be required to take a college-level anatomy and physiology course in their freshman or sophomore year. Therefore, the purpose of the course is to introduce anatomy and physiology so they will be better prepared for the challenges of this rigorous coursework. It will focus on eleven systems of the body and include learning the names and functions of hundreds of structures. The course requires a great deal of memorization. Coursework includes a combination of lectures, reading, independent projects and laboratory experiences. Exams will include identification of structures by lab practical and written responses. Students can also concurrently enroll in Essentials of Anatomy and Physiology I (SCI136) through FMCC at a reduced tuition rate and earn three college credits for this course. Students can take this class for or not for college credit.

ADVANCED PLACEMENT BIOLOGY

1 Unit and 4 possible college credits

Open to students entering grades 11 and above who have passed the Living Environment, Earth Science, and Chemistry courses and their respective Regents exams, or have instructor permission

Course offered alternating years and will not be offered until the 2023-2024 school year

This college level course is a survey exploring the study of life using chemical, genetic, evolutionary, structural and functional approaches. This demanding course requires motivation, dedication and a desire to learn. Students may receive college credit or advanced standing for this course depending upon the grade earned on the AP test in May and the policy of the college the student attends. There is a fee for the test, but no student will be denied access to the test based upon ability to pay. Students can also concurrently enroll in General Biology II (BIO 171) through FMCC at a reduced tuition rate and earn four college credits for this course.

THE LIFE AND TIMES OF DINOSAURS

1 Unit

Open to students who have passed one science Regents exam, preferably Living Environment

This course focuses on the ecology of extinct ecosystems as scientists currently understand them. Major concepts addressed are: evolution and adaptation, interdependence of organisms, geologic changes and their influence on living things, and the scientific method. Although all geologic eras will be covered, the class focuses on the geologic era during which the dinosaurs lived. Students will be exposed to recent scientific discoveries about dinosaurs and other ancient life. They will learn about these organisms through lab activities, lectures, research projects, videos and readings.

FRESHWATER BIOLOGY**1 Unit**

Open to students who have passed the Living Environment class and regents

Freshwater Biology explores the physical, chemical, and biological factors that affect freshwater ecosystems. This is a two-part, Ecology course that will first focus on slow moving bodies of water such as lakes and reservoirs. The second part of the course focuses on stream environments. The connections between aquatic organisms and their physical and chemical environment is stressed. Impacts that humans have on both types of aquatic environments will be covered, as many freshwater environments are declining today. Students should have a good understanding of basic lab procedures and should have taken and passed the Living Environment Regents.

SOCIAL STUDIES

All students must pass four (4) units of social studies in order to earn a high school diploma. Required courses are Global History 9, Global History 10, United States History and Government, Participation in Government and Economics.

Global History and Geography I	1 Unit
Global History and Geography II	1 Unit
United States History and Government	1 Unit
Advanced Placement United States History	1 Unit
Economics, The Enterprise, and Finance	½ Unit
Participation in Government and Civics	½ Unit
Intro to American Politics	1 Unit
History of the Holocaust	½ Unit
SUPA Psychology	1 Unit
American History Through Media	½ Unit
The History of the American Social Justice Movement	½ Unit
Sociology	½ Unit
Adolescent Psychology	½ Unit
Psychology of Mental Illness	½ Unit

GLOBAL HISTORY AND GEOGRAPHY I

1 Unit

Open to students entering grade 9 and above.

This course examines the history of the world from pre-history through the end of the eighteenth century. Special emphasis is placed on the geography of the world, religions of the world, the development of political and economic systems throughout time and place, and the development of world cultures. This course is designed to improve each student's reading, writing, and analytical skills through assignments including the writing of thematic essays centered on enduring issues of world history and document-based constructed response questions. These skills will help prepare students for Global History and Geography II, as well as the NYS Global History Regents Exam which they will take in 10th grade

GLOBAL HISTORY AND GEOGRAPHY II

1 Unit

Open to students who have passed Global History and Geography I

This course is a continuation of Global History and Geography I. It examines the major forces in history from the Enlightenment to the present day. It analyzes the role of the individual within his culture and historical era. It looks at the role of nationalism, imperialism, and industrialization as they interact in events from the past to the present. Projects, papers, and evaluation documents are some of the skills emphasized in this course. The reading, writing, and analytical skills that were focused on in *Global History and Geography I* will continue to be developed in this course. The course prepares the student to take the Global History Regents examination in June.

UNITED STATES HISTORY AND GOVERNMENT

1 Unit

Open to students who have passed Global History and Geography II.

This course is designed to improve each student's reading, writing, and reasoning skills. U.S. History is presented in a thematic approach. Students study the structure and function of government so that they may develop a stronger commitment to democratic values. One goal is to explain the relevance of the past to modern-day young citizens. Contemporary issues are an integral part of the course. Oral and written reports are assigned throughout the year. Students will focus on the analysis of primary and secondary source documents as well as civic and constitutional literacy. The Regents exam in U.S. History and Government is taken at the end of the course in June.

ADVANCED PLACEMENT UNITED STATES HISTORY

1 Unit and 6 possible college credits

Open to students entering grade 11 and above who have scored a *90 or higher on the Global History Regents exam and course.

subject to teacher approval/recommendation

This Advanced Placement course is designed to provide students with the analytic skills and factual knowledge necessary to deal critically with the problems and materials in US History. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students should learn to assess historical material, their relevance to a given interpretive problem, their reliability, and their importance, and to weigh the evidence and interpretations presented in historical scholarships. In addition to exposing students to a very detailed list of historical content, students will analyze and interpret primary sources, including commentary material, maps, statistical tables, and pictorial and graphic evidence of historical events. Students will learn to take notes from both printed

materials and lectures or discussions, write essay examinations and write analytical and research papers. The Advanced Placement exam is given in May for a fee. No student will be denied access to this test based upon ability to pay. The Regents exam in US History and Government is also given in June. Although this is an AP course, students can also choose to concurrently enroll in Survey of American History I (HIS 105) for the fall semester and Survey of American History II (HIS 106) for the spring semester through Fulton Montgomery Community College at a reduced tuition rate and earn six college credits for this course.

ECONOMICS, THE ENTERPRISE SYSTEM, AND FINANCE

½ Unit

Open to students entering grade 12 who have passed the US History and Government course

This course is designed to provide students with economic knowledge and skills that enable them to function as informed and economically literate citizens in our society and the world. Topics range from personal economic decision-making to an understanding of the interdependence of the world's economy today.

PARTICIPATION IN GOVERNMENT AND CIVICS

½ Unit

Open to students entering grade 12 who have passed the US History and Government course

The purpose of this course is to relate the content and skills of earlier social studies courses to the individual student's need to act as a responsible citizen. Participation is interpreted to include all groups of which students are "citizens". Students participate in the analysis of public issues. Research is required in and out of school and a senior project is required to pass the course

INTRO TO AMERICAN POLITICS

1 Unit and 3 possible college credits

Open to students entering grade 12

This course is an alternate college-level option for the Participation in Government high school graduation requirement. The purpose of this half-year spring semester course is to examine the various political and governmental structures that make up the American political system: political culture, constitutional arrangements, public opinion, pressure groups, political parties, elections, Congress, president, courts, and bureaucracy. The major theme of this study is the understanding that since the American political system was intentionally designed to make it difficult for any one individual or group to govern effectively, public policies are usually the results of compromises; hence, the final outcome is less than anyone wishes. Hoping to make the student a realistic observer of the process, the course explores how the "system" affects the relationship between the promises and the performances of elected officials. Students can concurrently enroll in American Political Systems (POL 101) through Fulton Montgomery Community College at a reduced tuition rate and earn three college credits for this course.

HISTORY OF THE HOLOCAUST

½ Unit

Open to students entering grade 11 or above

This half-year course is an exploration into the causes and consequences of the Nazi Holocaust. This course will begin by taking an in-depth look into the roots of anti-Semitism dating to the earliest days of Judaism. The class then examines European Jewish life during the first half of the century, considers the development of Nazism, and discusses Nazi efforts to eliminate those marked as "a-socials" in German society. As a discussion-based course, we will pay close attention to the variety of ways that Jews and other targeted groups responded to this crisis. Finally, it examines a number of survivor accounts and the impact that survivors have on the world today. Students will be expected to participate in daily discussions, readings, individual research, and presentations to obtain a deeper understanding of how hate can lead to genocide and the impact the Holocaust has on the world today.

SUPA PSYCHOLOGY

1 Unit and 3 possible college credits

Open to students entering grade 12

This is a full-year introductory psychology course with the primary goal of providing students with the fundamental concepts of psychology that make us human—perception, sensation, emotion, personality, learning, memory, stress, and social behavior. This class will apply emerging psychological theories to real-life experiences and provide insight into why humans behave the way they do. Students will become acquainted with psychological research methods, read college-level texts, and develop their oral and written communication of psychological knowledge. Students can choose to enroll in Foundations of 21 Human Behavior (PSY 205) through Syracuse University Project Advance (SUPA) for a reduced tuition rate and earn three college credits.

THE HISTORY OF THE AMERICAN SOCIAL JUSTICE MOVEMENT

½ Unit

Open to students in grades 11-12 with an interest in social justice

This course is designed to introduce students to social justice issues and assist them in discovering their ability to create positive change in their own world. Students will critically analyze various social movements related to Women's rights & suffrage, the Civil Rights Era, and the LGBTQ rights movements. Students will research prominent individuals, Constitutional Amendments, Supreme Court cases, and the use of protest involvement in these movements. This course will encourage students to think critically, present their findings and determine how social change is brought about in the United States.

AMERICAN HISTORY THROUGH MEDIA

½ Unit

Open to students in grades 11-12

Students will explore and analyze major events of American history through all forms of media (film, television, podcast, etc.). Students will use photographs, music, and other forms of primary documents to aid in their investigation of the modern presentation of American History. Students will have the opportunity to view a variety of media and analyze, critique, and review the story that is presented. Students' investigation will center around detecting bias, and historical inaccuracies and searching for motives and messages the director/author is trying to portray. In the end, the students will have had the chance to challenge the modern perception of our history and to provide their own insight on the value of media as a source of historical information.

SOCIOLOGY

½ Unit

Open to students in grades 11-12

This course is an introduction to sociology as a way of understanding the world. Sociology is a field of study that explains social, political, and economic phenomena in terms of social structures, social forces, and group relations. During this course, we will focus on several important sociological topics, including socialization, culture, the social construction of knowledge, deviance and self-control, social movements, collective behavior, inequality, race and ethnic relations, poverty, and political sociology.

ADOLESCENT PSYCHOLOGY

½ Unit

Open to students in grades 9-12

This high school-level Adolescent Psychology course explores the psychological development and unique challenges faced by adolescents as they navigate through this crucial stage of life. Students will learn about cognitive, emotional, social, and physical changes that characterize adolescence. The course will give students insights into the factors influencing adolescent behavior, decision-making, and identity formation. It also allows for the investigation of career paths related to working with adolescents and issues surrounding them.

PSYCHOLOGY OF MENTAL ILLNESS

½ Unit

Open to students in grades 9-12

The high school-level psychology course explores into the study of psychological disorders, exploring the causes, symptoms, and treatment approaches for various mental health conditions. Students will examine the impact of psychological disorders on individuals, families, and communities. This course allows students to understand mental illness for their personal investigation of career paths related to the field of psychology, therapy and counseling.

TECHNOLOGY

Our high school technology courses build on the curriculum taught in seventh and eighth grade and provide state of the art, industry standard robotics and software platforms. The department will be adding even more to the already amazing robotics curriculum, and using cutting edge mechanical engineering, civil engineering, and architectural software that is used by all of the top engineering universities and corporations. The demand is greater than ever for engineers and graduates within the STEM (science, technology, engineering, and mathematics) fields.

Introduction to Engineering Design***	1 Unit
Residential Structures	1 Unit
Principles of Engineering	1 Unit
AP Computer Science Principles	1 Unit
Robotics I	1 Unit
Robotics II	1 Unit

***course can be used to fulfill the art/music requirement for graduation

INTRODUCTION TO ENGINEERING DESIGN

1 Unit and 3 possible college credits

Open to students entering grade 9 and above who have strong math skills

In this course students will use what they have learned in design and modeling (7th grade) by combining more advanced technical drawing, and industry standard 3-D modeling software (a sophisticated mathematical technique for representing solid objects) with solving design problems. The students will be presented with a series of design/engineering problems that will be solved with the use of drawings, where they will keep an engineering notebook to document their ideas and sketches using the design process, resulting in the production of an incredible, working prototype of their design with a state-of-the-art 3-D printer. Students will work on projects, activities, and problems not only of interest to them, but that have global and human impacts. Students will work in teams to design and improve products, document their solutions, and communicate them to others. Students can receive three college credits at a reduced rate of tuition through Rochester Institute of Technology (RIT) upon successful completion of the course with a final grade of 85 and a 6 out of 9 on the final exam.

ROBOTICS I

1 Unit

Open to students entering 9th grade who have successfully completed technology in junior high school.

The objective of this course is to use a hands-on approach to introduce basic concepts in robotics. The class will incorporate the use of Creator Bots. Creator Bots integrate coding, design-thinking, and robotics. Students will work hands-on in collaborative teams to design, build and program the Creator Bots.

ROBOTICS II

1 Unit

Open to students who have successfully completed at least one technology course

The class will incorporate the use of a more sophisticated Creator Bot. Students will work hands-on in collaborative teams to design, build and program the Creator Bots. Topics may include motor control, gear ratios, torque, friction, sensors, decision-making, propulsion systems and locomotive systems.

RESIDENTIAL STRUCTURES

1 Unit

Open to students entering grade 10 and above

Residential Structures is a study of the many systems and skills involved in constructing residential buildings. Course content includes: resources (e.g. planning, materials, supplies, and finances), processes (e.g. framing, roofing, plumbing, insulation, electrical), and outputs and effects (e.g. quality assurance, environmental impact economic consequences). Students will be required, by the end of the course, to complete homework assignments, complete the framing of a scale model including floor, walls, ceiling and roof, and complete many modules on basic home repair and maintenance (e.g. electrical wiring, plumbing, insulation, finishing walls, running molding, and laying out a set of stairs).

PRINCIPLES OF ENGINEERING (POE)

1 Unit and 3 possible college credits

Open to student entering grade 10 and above who are enrolled in advanced math courses

This is a high school-level survey course of engineering. The course exposes students to some of the major concepts that they will encounter in a college engineering course of study. Students have an opportunity to investigate engineering and high tech

careers and to develop skills and understanding of course concepts through activity-, project-, and problem-based (APPB) learning. Students will use industry standard 3D modeling software (a sophisticated mathematical technique for representing solid objects) and use a robust robotics platform, RobotC, to design, build and program a solution to solve an existing problem. To be successful in this course, students should be concurrently enrolled in college preparatory mathematics and science. Students will employ engineering and scientific concepts in the solution of engineering design problems. Students will develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges. Students will also learn how to document their work and communicate their solutions to their peers and members of the professional community. Students can receive three college credits at a reduced rate of tuition through Rochester Institute of Technology (RIT) upon successful completion of the course with a final grade of 85 and a 6 out of 9 on the final exam.

ADVANCED PLACEMENT COMPUTER SCIENCE PRINCIPLES

1 Unit and 3 possible college credits

Open to students entering grade 10 and above who have passed the Algebra I Regents exam with a minimum score of 75, or permission of the instructor. Successful completion Introduction to Engineering Design and/or Coding for Beginners recommended

Using Python® as a primary tool, students learn the fundamentals of coding, data processing, data security, and task automation, while learning to contribute to an inclusive, safe, and ethical computing culture. The course promotes computational thinking and coding fundamentals and introduces computational tools that foster creativity. Computer Science Principles helps students develop programming expertise and explore the workings of the Internet. Projects and problems include app development, visualization of data, cybersecurity, and simulation.

DISTANCE LEARNING OFFERINGS

Mayfield High School has the ability to receive classes from other schools within the Distance Learning Consortium that includes school districts from the Capital Region, Saratoga, Warren, Washington, Essex, Hamilton, Franklin and Montgomery counties. These classes meet in Mayfield High School's distance learning classroom that is equipped with dual video HD displays that allow each connected classroom to view the instructor, content, and all participating students. Ceiling microphones are installed to insure sound coverage from the podium and student areas. Program audio is amplified and delivered to the room via an array of ceiling speakers. The teacher's podium is equipped with digital document cameras, laptop and PC connections that allow the instructor to display and share content from multiple sources. Fully integrated touch panels control all room functions and peripheral equipment including multiple cameras. Courses offered are matched as closely as possible with the Mayfield bell schedule.

The following classes may be offered for the 2024-2025 school year based on enrollment interest and availability.

Animal Science

1 Unit

ANIMAL SCIENCE

1 Unit

Open to students who have passed the Living Environment course and the Regents exam

Classification of animals, careers, harness training, history of animals, breeds, uses, animal handling and care, animal behavior, animal cells and tissues, nutrition, and more. This full year class is offered by Fonda-Fultonville School District through the Distance Learning Network pending enrollment and availability.

CAREER AND TECHNICAL TRAINING

The mission of the Career and Technical Center is to provide technical training opportunities for a competitive world. The Career and Technical Center offers many two-year programs and one senior year program that enable students to be prepared for the job market or college after graduation from high school. Students attend the Career and Technical Center for a half-day during both grades 11 and 12, and may earn a total of 7 units if enrolled in a two-year program. Students who complete a two-year Career Ed program earn five units in OCCUPATIONAL EDUCATION, which can replace the three year foreign language requirement for a Regents Diploma with Advanced Designation. Students interested in learning more about the Career and Technical Center should speak with their guidance counselor early on in high school. ***Eligibility for participation in a two year program at the Career Education Center requires successful completion of English 9 and 10, Global History 9 and 10, two units of Math and two units of Science and one unit of Art and/or Music.***

Auto Body Repair I	3½ Units
Auto Body Repair II	3½ Units
Auto Technology I	3½ Units
Auto Technology II	2½ Units plus 1 additional integrated unit of English 12
Construction Technology I	3½ Units
Construction Technology II	2½ Units plus 1 additional integrated unit of Applied Math
Cosmetology I	3½ Units
Cosmetology II	2½ Units plus 1 additional integrated unit of English 12
Criminal Justice I	3 Units plus ½ additional integrated unit of Participation in Gov't.
Criminal Justice II (Corrections)	3 Units plus ½ additional integrated unit of Economics
Culinary Arts I	3½ Units
Culinary Arts II	2½ Units plus 1 additional integrated unit of English 12
Cybersecurity & Computer Technology I	3½ Units
Cybersecurity & Computer Technology II	2½ Units plus 1 additional integrated unit of Applied Math
Digital Multimedia and Communications I	3½ Units
Digital Multimedia and Communications II	2½ Units plus 1 additional integrated unit of English 12
Environmental Conservation I	3½ Units
Environmental Conservation II	2½ Units plus 1 additional integrated unit of Applied Math
Foundations of Food Service I	3½ Units
Foundations of Food Service II	3½ Units
Medical Assisting I	3½ Units
Medical Assisting II	1 ½ Units plus 1 additional unit of Anatomy and Physiology and 1 additional unit of English 12
New Visions Education	2 Units plus 1 unit of English 12, ½ unit of Economics and ½ unit of Participation in Govt. (For seniors only)
New Visions Health Careers	2 Units plus 1 unit of College English, ½ unit of Economics and ½ unit of Participation in Govt. (For seniors only)
Robotics & Engineering Technology I	2 ½ Units plus 1 additional unit of Intermediate Algebra
Robotics & Engineering Technology II	3 ½ Units
Skilled Trades Program	3 ½ Units (For seniors only)
Veterinary and Animal Science I	3½ Units
Veterinary and Animal Science II	1 ½ Units plus 1 unit of Animal Anatomy and Physiology

AUTO BODY REPAIR

Students learn to repair and refinish damaged vehicles with I-Car Advance Tech training; Chief E-Z Liner Frame Equipment and HVIP refinish equipment. They also learn high-tech welding methods, flexible and rigid plastic repair, as well as how to calculate repair costs and establish estimates. This program offers selected graduates articulated college credit through Lincoln Technical Institute, Ohio Technical College or Morrisville State College.

AUTO TECHNOLOGY

Through the A.S.E. certified and nationally recognized program, students learn theory and gain practical hands-on experience with engines, carburetion, fuel injection, electrical systems and components, brakes, clutches, transmissions, steering, suspension, (front and rear), rear axle assemblies, air conditioning, routine service procedures and diagnosis, and computer control systems. The program offers high-tech diagnostic equipment, modern demonstration vehicles, work-study programs, preparation for New York State inspection licensing, internships, auto manufacturer training, regional automotive competitions, and live demonstrations from associated industries and support from an active Automotive Advisory Committee. Students who complete the program have the opportunity to receive a Technical Endorsement on their high school diploma. This program offers selected graduates articulated college credit through Morrisville State College, SUNY Canton, Ohio Technical College, Lincoln Technical College, University of Northwestern Ohio, and Universal Technical Institute.

CONSTRUCTION TECHNOLOGY

This two-year program stresses career preparation in the building trades with an emphasis on green building techniques. Students are exposed to a variety of construction trades including: residential construction, blueprint reading and estimating, building materials and tools, surveying, foundations, floor, wall and roof systems, insulation and energy efficiency, window and door installation, electrical wiring and home energy use analysis. Students may receive NCCER accreditation and high achieving students may receive a technical endorsement on their high school diploma. The construction technology program includes integrated mathematics, providing students an opportunity to earn a mathematics credit toward graduation. This program offers selected graduates articulated college credit through FMCC, Herkimer County Community College, Mohawk Valley Community College and Bryant and Stratton College.

COSMETOLOGY

Students are taught all phases of cosmetology and related fields, and receive training in hair cutting, hair styling, chemical services, nails and skin care. The 1,000 hour cosmetology program (including the 250 hour nail technology program) provides the skills and training required for students to apply for the state licensing exam. This program offers selected graduates articulated college credit through FMCC, Bryant and Stratton College, Schenectady County Community College and SUNY Cobleskill.

CRIMINAL JUSTICE

An introduction to the criminal justice field is covered the first year including criminal and civil law, fingerprinting, investigation procedures, patrol functions, mechanical restraints, emergency response. The second year covers topics in corrections, probation, parole and security including security officer training. Prospective students must have excellent school attendance, grades and behavior, a recommendation by their guidance counselor and no prior police record. Students who complete both years earn one credit for Social Studies 12. This program offers selected graduates articulated college credit through FMCC, Bryant and Stratton College, Herkimer County Community College or Mohawk Valley Community College.

CULINARY ARTS

Culinary Arts is a two-year program that prepares students for careers in the hospitality industry and provides a solid foundation for students interested in continuing related college studies. Students in this course will have the opportunity to study various units such as: baking and pastry, commercial food preparation, dining room service, restaurant operations and catering. The program is aligned with the National Restaurant Association's Pro Start curriculum. In addition, students gain hands-on experience in a state of the art kitchen and engage in work-based learning and leadership by catering special events, luncheons, dinners and completing an internship experience at a local restaurant, bakery, hotel or food service facility at the end of their senior year. Selected graduates can earn articulated college credit through Schenectady County Community College, SUNY Cobleskill, SUNY Delhi, New England Culinary Institute or the Culinary Institute of America.

CYBERSECURITY AND COMPUTER TECHNOLOGY

During the two-year Cybersecurity and Computer Technology program, students learn the principles of Cybersecurity through completion of two courses: Introduction to Cybersecurity 2.1 and IT Essentials. Students complete these courses simultaneously with the IT Essentials and CISCO courses. This program teaches junior year students Introduction to Cybersecurity 2.1, which explores the field of cybersecurity, specifically the importance of cybersecurity, data confidentiality, best practices for internet and social media safety, and potential career opportunities in this growing field. Junior year also focuses on an IT Essentials course, which introduces students to the fundamentals of computer hardware and software, mobile devices, security and networking concepts, and the responsibilities of an IT professional. Senior year students take Cybersecurity Essentials, a course that covers foundational knowledge in all aspects of security in the cyber-world, including information security, systems security, network security, mobile security, physical security, ethics, and law. It builds students' skills in related technologies, procedures, defense, and mitigation techniques used in protecting businesses. The second half of senior year focuses on the CISCO Certified Entry Networking Technician (CCENT) certification training and test, which validates that a candidate has the skills required for an entry-level network support position, which is the starting point for many successful careers in networking. This program offers selected graduates articulated college credit through FMCC, Mohawk Valley Community College, Bryant and Stratton College or SUNY Cobleskill.

DIGITAL MULTIMEDIA AND COMMUNICATIONS

The program is a collaborative initiative designed to develop the knowledge, skills and attitudes students need to create and respond to evolving digital media techniques. Students use state-of-the-art Apple computers and digital equipment to create multimedia projects. In this course students will use the Adobe Master Suite Collection in photography and videography to create and manipulate digital media designs. This includes Photoshop (photography), Illustrator (illustration), In Design (page design), Dreamweaver (web design), Flash (multimedia), ProTools (audio), Premier (video) and After Effects (video). Students in this program will also utilize audio mixing and recording equipment in the digitally equipped sound studio. In addition, students learn professional and communication skills necessary to establish, maintain and develop client relationships.

Selected graduates can earn articulated college credit through FMCC, Mohawk Valley Community College, SUNY Cobleskill, SUNY Canton or Bryant and Stratton College.

ROBOTICS & ENGINEERING TECHNOLOGY with 2+1 COLLEGE OPTION

This program is a collaborative partnership with HFM BOCES, Fulton-Montgomery Community College and the National Science Foundation to create career opportunities for students in the field of engineering technology. Students will receive STEM (Science, Technology, Engineering, and Mathematics) instruction focusing on career exploration in current and emerging technologies. Students will also apply college-level algebra, physics, and engineering principles to develop systematic approaches to problem-solving and critical thinking skills. In this “2+1” program, students will complete their two-year HFM BOCES Career and Tech program while accumulating 25 college credits (Electric Circuit Analysis I and II (ELT 125 and 126), Digital Electronics (ELT 132), Industrial Automation and Robotics I (ELT 131), Electronics I (ELT 229), Intermediate Algebra (MAT 120), and Computer Aided Drafting (CAD 174)) and then be prepared to complete their Associates degree in Electrical Technology at FMCC in one additional year. The credits accumulated at HFM would be at no cost to the students when they continue to FMCC (articulated credits). Students who choose to enroll at a different college may still earn college credits, but would be individually responsible for the tuition cost of those credits. Students enrolled in this program will utilize FMCC’s Center for Engineering and Technology laboratories, including the chip fabrication clean room, robotics lab, and electronics facility. Students completing the engineering technology program will be prepared for engineering technician careers at a variety of regional advanced manufacturing industries or can continue their education at the Bachelor’s degree level in an engineering technology field.

ENVIRONMENTAL CONSERVATION

This two-year program stresses career preparation in forestry and lumber production, heavy equipment operation with emphasis on renewable resources. The core curriculum familiarizes them with the tools of the trade. Students learn to operate our fleet of bulldozers, backhoes and other heavy equipment as well as learn to operate power saws, welders, and other shop tools. Students can focus in one of four areas: (1) Forestry and Lumber Production where students operate chain saws to fell trees, buck up lumber and limb trees. They learn and operate the band saw mill and edger to produce graded lumber that is used primarily on campus. They will spend time in the woods studying Silva culture, wildlife and fauna. Highly qualified completers may take the NY State Game of Logging exam and may receive a technical endorsement on their high school diploma. (2) Heavy Equipment Operation where students learn to operate a variety of heavy equipment, learn “green” site management techniques, and may complete the first two classroom years of the four-year apprenticeship program required to become a journeyman operator. Students may receive NCCER accreditation and high achieving students may receive a technical endorsement on their high school diploma. (3) Renewable Resources where students participate in a variety of classroom and lab studies focused on renewable resources including, but not limited to, aquaculture, hydroponics, aquaponics, PV and wind power generation, and biodiesel production. HFM BOCES has extensive lab facilities for these studies in the building, on our nature trail, and around pond areas. The Environmental Conservation program includes integrated mathematics, providing students an opportunity to earn a mathematics credit toward graduation. This program offers selected graduates articulated college credit through Paul Smith’s College, FMCC or SUNY Cobleskill.

FOUNDATIONS OF FOOD SERVICE

Students receive classroom instruction and hands-on training to prepare them for basic entry level employment in the food service industry. The curriculum includes safety practices for all equipment used in a kitchen environment, good work habits, professional sanitation techniques, basic knife skills and standard culinary practices. Students learn baking and food preparation techniques and also explore career opportunities and work habits essential for success on the job. Second-year students learn more advanced baking and food preparation techniques, and also have work-study opportunities.

MEDICAL ASSISTING

Students in this program are introduced to a full range of activities and tasks that medical assistants may undertake. Students acquire specialized knowledge skills and attitudes that allow them to perform administrative and clinical procedures in a variety of health settings. The New York State curriculum is followed. The course prepares students for entry level employment as a medical assistant. Students can earn high school science credit for Anatomy and Physiology through this program. This program offers selected graduates articulated college credit through FMCC or Bryant and Stratton College.

NEW VISIONS EDUCATION

This rigorous one year program is for seniors who are interested in pursuing careers in the K-12 education field. Through the program, students will gain field experience working in various local school districts. Students will have the opportunity to explore different career paths through extended job shadowing and internships working with classroom teachers, school psychologists, counselors, social workers, and special education teachers. Students will also complete Fulton-Montgomery Community College coursework earning up to 9 college credits. Prospective students should be interested in pursuing a K-12 educational career program at the college level and have an 85 or higher high school cumulative average. An application is required. Participants receive one credit for grade 12 social studies and one for English 12.

NEW VISIONS HEALTH CAREERS

In this senior year only program, students receive an “inside look” at the diversity of health careers through a year-long half day immersion program at Nathan Littauer Hospital. They learn the value of being good problem-solvers, decision-makers and team-players. This program is for students who want to go to college in the health field and is open to seniors who have completed 3 years of math and three lab sciences. There is an application process that involves an essay as well as teacher and guidance counselor recommendations. Participants receive one credit for grade 12 social studies and one for English 103 through FMCC, as well as two health credits.

SKILLED TRADES: ELECTRICAL, HVAC AND PLUMBING

Why consider a career in the skilled trades? These fields offer many high-paying job opportunities for high school graduates and employers report they’ll need even more skilled tradespeople in the future as projections show a national job growth in these trades to be approximately 25%. This one year program is for seniors only who are interested in careers in the electrical; HVAC-heating, ventilation, and air conditioning; and plumbing fields. Students will explore career opportunities in the electrical, HVAC, and plumbing fields, gain hands on experience in the classroom, and learn other responsibilities in order to enter the workforce after high school or continue with technical training. Students will earn the NCCER Core and Electrical Apprentice I credential which is equivalent to the completion of a one year apprenticeship program.

VETERINARY AND ANIMAL SCIENCE

This is a two year program intended to prepare students for a future in the expanding pet industry that offers a variety of career opportunities. This science-based program teaches skills in areas such as animal handling, animal anatomy and physiology, grooming, pet first aid, health and disease, clinical practices, animal restraint training, reproduction, large animal nutrition, veterinary terminology and safety and sanitation. Students have experience working hands on with both small and large animals during their time in the program and will also take field trips to local dairy, beef, and sheep farms. Internships with local veterinary clinics, animal shelters, groom and training facilities are also part of the experience. Students can earn high school science credit for Comparative Animal Anatomy and Physiology through this program. This program offers selected graduates articulated college credit through FMCC, Alfred State College, SUNY Canton and SUNY Delhi.

PTECH: Pathways in Technology Early College High School

PTECH is a program sponsored by the Hamilton, Fulton and Montgomery County BOCES and offered to all area high school students in a competitive application process in the winter of a student's eighth grade year. The program starts with the student's freshman year and continues until they have graduated from high school and college. This could take up to six years. Participating students are transported by the Mayfield School District and still considered students at Mayfield, and are eligible to participate in all Mayfield extra-curricular activities and sports teams. Its unique characteristics are:

- Project Based Learning
- Business Partner Mentor
- Combined college and high school credits so that students finish the program with both a high school diploma and a two year associate's degree, at no cost to themselves
- Individualized Career Pathways

All three of the PTECH pathways will be housed at the Glebe Street School in Johnstown. Below is the PTECH student location and coursework year by year:

- 9th and 10th grade: At Glebe Street School in Johnstown, *high school and college in the high school credits*
- 11th grade: At HFM BOCES campus and Fulton-Montgomery Community College, *high school, college in the high school, and courses on the college campus*
- 12th grade: Agriculture Pathways students at SUNY Cobleskill campus, all other pathways at Fulton-Montgomery Community College, *college courses taken on campus*
- Fifth and sixth years are dedicated to associate degree program completion at Fulton-Montgomery Community College and SUNY Cobleskill

Students have many options to choose from within the PTECH Career Pathways and Clusters. Students do not have to declare a pathway right away, but do need to have their pathway selected by their sophomore year.

PTECH Career Pathways and Clusters for 2020-2021:

Pathways in Agriculture

- Agricultural Business
- Agricultural Science
- Agricultural Engineering Technology: Power Machinery
- Animal Industry
- Biological Technology
- Environmental Studies
- Fisheries and Wildlife Technologies
- Sustainable Crop Production
- Culinary Arts

Degrees above are conferred by SUNY Cobleskill

Pathways in Business and Advanced Manufacturing

- Business Accounting
- Business Management
- Business Marketing
- Electrical Technology

Degrees above are conferred by Fulton Montgomery Community College

Pathways in Medical/Health Science and Computer Science

- Health Information Records Management
- Health Studies
- Chemical Abuse Counseling
- Radiologic Technology
- Media Arts and Digital Technology
- Computer Information Systems
- Computer Networking and Cybersecurity

Degrees above are conferred by Fulton Montgomery Community College

Calculation of Cumulative Average and Class Rank

Calculation of cumulative average and class rank shall be calculated at the end of each school year for grades 9 through 11. The cumulative average and class rank for senior year will be calculated using senior year course grades, after the third marking period. All final grades for high school potential credit-bearing courses will be included in the calculation of cumulative grade average and class rank, *including any high school courses taken as an accelerated eighth grader.*

Mayfield Junior-Senior High School Weighting System

The weighting system described below will be applied when calculating a student's final cumulative average for the purpose of determining class rank. The quality points will be added to the final grade average of each course designated as deserving of quality points. All weighted final course grades will be added together and divided by the total potential credits to determine the cumulative weighted grade average. Both the weighted and non-weighted cumulative grade averages will appear on the student's junior and senior year transcripts with a weighted class rank.

Formula for determining each course grade: $\text{Earned Grade} + \text{Quality Point} = \text{Weighted Grade}$

Course Level	Course	Quality Points
Honors	English 9 Honors, English 10 Honors, and English 11 Honors	+3
SUPA and College in the High School	Accounting, Advanced Studio Art, Algebra II, Anatomy and Physiology, College Calculus, College Government, College Pre-calculus, Elementary Italian I and II, English 103, English 104, French IV and V, Math Finance, New Visions Health, New Visions Education, Physics, Principles of Business, Programming Logic and Design, Spanish IV and V, Spreadsheets and Databases, and SUPA Psychology	+4
Advanced Placement	AP US History, AP Biology, and AP Computer Science Principles	+6

Selection Process for Valedictorian, Salutatorian, and Honor Guard in the Senior Year

The graduating student with the highest weighted cumulative grade average will earn the valedictorian designation. The graduating student with the second highest weighted cumulative grade average will earn the salutatorian designation. In addition to cumulative grade average, all candidates for valedictorian and salutatorian must meet the criteria listed below.

1. The student must be completing high school in a maximum of four years.
2. By graduation, all candidates will earn a Regents Diploma with Advanced Designation.
3. By graduation, all candidates will have earned a minimum of 16 units of credit in English, math, science and social studies, including a minimum one unit of credit at the college level or Advanced Placement level during their four years of high school.
4. Both the valedictorian and the salutatorian are expected to participate in the graduation ceremony. Under most circumstances, the valedictorian and the salutatorian would speak at graduation. The Mayfield Junior-Senior High School principal will review and approve speeches prior to graduation.
5. To be eligible for consideration for valedictorian or salutatorian graduation honors, the student must have been enrolled at Mayfield High School during their entire graduating year.

Selection Process for Honor Guard Designation: A designation of an "Honor Guard" will be bestowed upon those students with a weighted cumulative grade average of 90.0 or higher, with no rounding up, earning a Regents diploma.