2024-2025 Marple Newtown High School Course Selection Guide

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Course Selection Guide Purpose

The curriculum guide has been developed through the efforts of MNHS staff to assist students while planning their courses to meet graduation requirements. Its primary purpose is to aid students and parents in selecting courses to meet graduation requirements and post-secondary outcomes. A collaborative process inclusive of students, parents, teachers, and counselors provides the greatest benefit toward successful academic programming.

Please understand courses may be included within the curriculum guide, but not in the master schedule each year. Courses included in the master schedule are predicated on the number of student requests and available staff.

The provisions of this guide should not be considered an irrevocable contract between the student and the school.

Mission Statement

To provide state-of-the-art educational opportunities for all students in a safe, healthy, and effective learning environment through a collaborative commitment involving students, families, staff, and community.

Equal Rights and Opportunities Policy

With the aim of assuring equal rights and opportunities within our school community, and to comply with the federal laws (including Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, Title VI of the Civil Rights Act of 1964 and OCR Guidelines IV-0, State laws and State Department of Education regulations concerning same, the Marple Newtown School District declares itself to be an equal rights and opportunities employer. As such, it does not discriminate against individuals or groups because of race, color, national origin, religion, age, sex, marital status, or non-relevant handicaps. Marple Newtown School District's commitment to non-discrimination extends to students, employees, and the community.

ACADEMIC REGULATIONS

Registration Information

MNHS provides students with a high-quality education. Courses are designed to challenge students and provide them with a rigorous education while fostering critical thinking in preparation to meet post-secondary goals.

Students should become familiar with the requirements of the university, college, or occupation they desire to pursue.

Students' abilities and achievements demonstrated in English, mathematics, social studies, science, and world language provide teachers evidence to make course recommendations.

Honors and Advanced Placement (AP) courses integrate significant rigor and enrichment. They require students to employ organizational skills to meet an enhanced pace of volume and complexity. Prerequisites identified within departments are required for Honors and AP course enrollments.

College preparatory courses make-up most of our curricular offerings and exist to challenge students in pace, breadth, and depth. They reinforce and extend students' skills as they prepare for additional educational post-secondary opportunities.

Core courses reinforce and extend students' foundational knowledge and concepts surrounding a particular subject. Core curriculum provides the foundation of learning from which subsequent courses build upon.

COURSE REQUEST AND SCHEDULE CHANGE POLICY

Students' course requests submitted during the spring determine course offerings and staff allocations. Students and parents are encouraged to engage in meticulous decision-making. Adequate thought and reflection regarding student performance has a propensity to result in a schedule that meets students' academic needs.

Changes to students' course registrations are due on the final school day in April.

Again, course offerings are based on enrollment and availability. If a student requests a course not included in the master schedule, then he or she will be given the opportunity to revise his or her course requests.

Parents of students who disagree with a teacher's course recommendation may acquire and submit a Course/Level Recommendation Placement Waiver from the Counseling Career Access Center (CCAC). Waivers must be returned to the CCAC no later than the last school day in April.

Students' schedules will be released in mid-August.

Students who successfully complete a pre-approved summer course(s) no later than August 20 will be permitted to change their course requests pending course availability. Students may obtain a pre-approved summer course form through the CCAC.

Once a term commences, a student must have the recommendation of the current teacher of the course, their school counselor, and the principal or designee to change the level of a class. Students need to acquire a Request for a Schedule Change Form from the CCAC to initiate the schedule change process.

Students who change a course(s) after their transcripts have been provided to any program or institution must inform it of the change in writing and provide a copy of the entity's approval to their CCAC counselor.

DROPPING DOWN A LEVEL/CHANGING COURSES

If a student drops a level within the same course within the first three weeks of a course:

1. The grade from the higher-level course is not recorded.
2. Students are responsible for the missed material presented in the new section.

Students who seek a schedule change pertaining to a term-long elective will be provided the first week of the term to complete it. However, students may only select an alternative elective within the same pattern and with available seats.

Courses dropped beyond the first three weeks of a course will be administered either a Withdraw Fail (WF) or Withdraw Pass (WP).

COURSE REQUIREMENTS AND PREREQUISITES

Course requirements and prerequisites are determined through collaboration among teachers, counselors, and administrators. Requirements will not be waived absent a unique, documented need. Our CCAC counselors will conduct a review of students' schedules. A student will be removed from a course if he or she does not meet its requirements. Schedule reviews occur during August; teachers should not be expected to override or waive any course requirements or prerequisites.

REPEATING A COURSE

Students cannot repeat a course and duplicate course credit if they already successfully completed it. However, students may repeat a course in which they already attained credit to solidify foundational knowledge before advancing in a program of study.

ACCELERATION

It is the policy of the Marple Newtown School District that students may participate in a summer program of enrichment instruction for course-credit. The student shall receive the same letter grade for high school credit that is assigned by the alternative education resource. The assigned student grade for successfully completed work shall not be weighted for purposes of computing the student's grade point average, unless prior approval has been granted by the administrator before the course work was begun.

Students are responsible for obtaining the Summer School Acceleration Agreement through the CCAC and submitting it prior to enrollment. Students intending to accelerate in their accredited program of study during the summer must make the request in writing to their CCAC counselor and confirm accurate course placement.

1. Students must enroll in a course given by an accredited institution approved by the Superintendent or designee.
2. Students need to provide an official transcript indicating the final grade earned in the course to the MNHS School Counseling Office.
3. Students assume responsibility of all fees, materials, and transportation.
4. The building principal or designee approves the course in advance.
5. Students need to earn no less than an 80% or B- in the summer program AND no less than an 80% or B- on the MNHS final examination for the same course to be fulfilled upon successful completion of the summer school program. Students are responsible for scheduling administration of the MNHS final examination.

COURSE RECOMMENDATIONS

In most instances, teachers submit course recommendations for the next course in sequence. Recommendations are made using demonstrable evidence of student ability and performance. Teachers will make students aware of their recommendations, particularly in instances wherein a change in level is provided.

SUMMER RESTORATION

It is the policy of the Marple Newtown School District that students may participate in a summer program of remedial instruction for course-credit. The student shall receive the same letter grade for high school credit that is assigned by the alternative education resource. The assigned student grade for successfully completed work shall not be weighted for purposes of computing the student's grade point average, unless prior approval has been granted by the administrator before the course work was begun. Students who enroll in a pre-approved summer program for credit restoration must communicate enrollment with their CCAC counselor before it begins. Pre-approval is required to identify the program's accreditation.

1. Students must enroll in a course given by an accredited institution approved by the Superintendent or designee.
2. Students need to provide an official transcript indicating the final grade earned in the course to the MNHS School Counseling Office.
3. Students assume responsibility of all fees, materials, and transportation.
4. The building principal or designee approves the course in advance.

5. If enrollment in an accredited institution is not possible during the summer, then the course will be rescheduled in a subsequent academic year.

ADVANCED PLACEMENT COURSES

Advanced Placement (AP) courses are offered at MNHS and adhere to requirements set forth by College Board. AP courses are approved by the College Entrance Examination Board as equivalent to college-level instruction.

In May of 2021, the superintendent of schools determined the requirement for all students who enroll in an AP course to participate in the AP Exam associated with the course administered by the College Board in May.

A student who enrolls in an AP course and does not participate in its corresponding AP Exam will not receive its attributed weight.

DUAL ENROLLMENT

It is the policy of the Marple Newtown School District that students may enroll in college courses at an accredited institution. The assigned student grade for successfully completed work shall not be weighted for purposes of computing the student's grade point average, unless prior approval has been granted by the administrator before the course work was begun.

A student who successfully completes college courses may receive high school credit, provided:

1. The student is in good academic standing.
2. The course is approved in advance by the student's guidance counselor and the building principal or designee.
3. The student assumes responsibility for all fees, materials, and transportation.

Grades earned in college courses will not count toward a student's grade point average, class rank or eligibility for athletic and extracurricular activities.

A maximum of six (6) courses from an accredited institution approved by the principal or designee may be counted toward the requirements for a student's high school graduation.

EARLY COLLEGE ADMISSIONS PROGRAM

The regulations of the Pennsylvania State Board of Education include a reference to high school students and early college admission. The regulations cite that high school students may enroll (part-time) in college with the approval of the high school principal. The regulations also indicate that exceptionally able students may leave high school prior to the senior year to attend approved colleges full-time at the discretion of the school district. The high school diploma shall be awarded to these students upon successful completion of the freshman year of college.

Since the opportunity for a high school education comes only once, the high school administration feels that the high school experience should be a full, four-year experience. However, realizing that individual needs are equally important, the high school administration also feels that an alternative such as the early college admissions program has merit.

PROCEDURE:
A student may receive a Marple Newtown High School diploma through participation in the early college admissions program provided that:

1. The student is accepted for early admission to an accredited college prior to high school graduation.
2. A written request by the student and his/her parent/guardian is made to and approved by the high school principal. Evidence that the student has been accepted by an accredited college must accompany the request. A copy of the student's program for the first year of college must also be forwarded to the high school principal.
3. Requests for early college admissions should be made as soon as all above items are completed.
4. At the conclusion of a full year of study (senior year) or a semester of study (second semester of senior year) and prior to high school graduation, the students must have forwarded to the high school an official college transcript indicating that the student has successfully completed a year or a semester of college work. The transcript will become a part of the student's high school permanent record.

GRADUATION REQUIREMENTS

Pennsylvania Graduation Requirements

Students can meet the statewide graduation requirement stipulated in Act 158 of 2018 and Act 6 of 2017 through one of five pathways that fully illustrate their college, career, and community readiness:

1. Earning Proficient or Advanced on each subject-based Keystone Exam: Algebra I, Biology, and Literature
2. Earning a composite score of 1500 or higher on the Algebra I, Biology, and Literature Keystone Exams
3. Meet local grade-based requirements for content associated with each of the three exams on which a student did not earn Proficient or Advanced and complete one (1) of the following:
    - ACT: composite score of 21
    - ASVAB: composite score of 31
    - PSAT/NMSQT: total score of 970
    - SAT total score of 1010

- Gold Level National Career Readiness Certificate
- For every Keystone Exam less than Proficient, complete a content-related AP Exam and earn score of 3 or higher on each
- For every Keystone Exam on which less than Proficient, successfully complete a content-related concurrent course
- Provide an unconditional acceptance letter from a 4-year IHE or general admittance and proof of college-level coursework enrollment/equivalent placement test results/equivalent grade profile
- Successfully complete a PA Labor and Industry registered pre-apprenticeship program

4. Meet local grade-based requirements for content associated with each of the three exams on which a student did not earn Proficient or Advanced and complete three (3) of the following:
    - Achieve at least a 630 on *any* SAT Subject Test(s)
    - Achieve at least Silver Level National Career Readiness Certificate
    - Score a 3 or higher on AP Exam(s) in any content area
    - Score a 3 or higher on IB Exam(s) in any content area
    - Successfully complete concurrent enrollment course(s) in any content area or successfully complete any postsecondary course(s) provided by an LEA-approved institution
    - Provide an unconditional acceptance letter from another-than-4-year IHE or general admittance and proof of college-level coursework enrollment/equivalent placement test results/equivalent graduate profile
    - Receive industry recognized credential
5. Meet local grade-based requirements for content associated with each of the three exams on which a student did not earn Proficient or Advanced and complete two (2) of the following:
    - Meet or exceed a score of 1500 on the Algebra I, Biology, or Literature Keystone Exam(s)
    - Successfully complete (verified by adult supervisor) LEA-approved service-learning project project(s) of sufficient duration and intensity to address community needs and learning
    - Successfully complete an internship or cooperative education program (defined by LEA)
    - Maintain the minimum credits and GPA in requisite courses per NCAA guidelines (certified by LEA)
    - Provide a letter or completed form indicating good faith offer(s) of postsecondary work commensurate with full-time employment as verified by the school administrator or enlistment papers

MNHS GRADUATION REQUIREMENTS

Single term courses are attributed .5 credits (CR) while semester-long courses are attributed 1.0 credits (CR). To earn an MNHS diploma, a student must meet the following requirements:

Program of Study	
Health/Physical Education	2.5 CR
English	4.0 CR
Social Studies	4.0 CR
Mathematics	3.0 CR
Science	3.0 CR
Math/Science Combined	7.0 CR
World Language	1.0 CR
Business and Technology	1.0 CR
Visual and Performing Art	1.0 CR
Other Electives (includes Career Pathways)	4.5 CR
Senior Project	1.0 CR
Total CR	26.0

CLASS RANK AND GRADE POINT AVERAGE (GPA)

MNHS students engage in a diverse, rigorous, and collaborative learning environment. Students' achievements are celebrated and recognized for their unique, exceptional attainment of goals. Class rank may not be an accurate measure of such student achievements. As a result, MNHS students are not ranked.

Grade point averages (GPAs) are attributed at the conclusion of the first and second semester.

MNHS uses weighted and unweighted GPA indicated on the scales provided:

GRADING SCALE - BEGINNING SEPTEMBER 2017					
GRADE	PERCENTAGE	COLLEGE PREP GPA	WEIGHTED GPA HONORS	WEIGHTED GPA AP	UNWEIGHTED GPA
A+	98% - 100%	4.30	4.70	5.00	4.30
A	94% - 97%	4.00	4.30	4.70	4.00
A-	90% - 93%	3.70	4.00	4.30	3.70
B+	87% - 89%	3.30	3.70	4.00	3.30
B	83% - 86%	3.00	3.30	3.70	3.00
B-	80% - 82%	2.70	3.00	3.30	2.70
C+	77% - 79%	2.30	2.70	3.00	2.30
C	73% - 76%	2.00	2.30	2.70	2.00
C-	70% - 72%	1.70	2.00	2.30	1.70
D+	67% - 69%	1.30	1.70	2.00	1.30
D	63% - 66%	1.00	1.30	1.70	1.00
D-	60% - 62%	0.70	1.00	1.30	0.70
F	< 59%	0.00	0.00	0.00	0.00

PREPARING FOR COLLEGE

Beginning in the junior year, many students begin to think about and prepare for the college admissions process. Guidance counselors can provide more detailed information, but the chart provides a summary of various assessments a student may consider as a junior or senior.

SCHOOL COUNSELING PROGRAMS AND SERVICES

MNHS school counselors provide services to meet diverse student needs. Due to the evolving needs of students, MNHS has a multi-faceted counseling department. Each student is assigned two counselors-one from the Student Services Center (SCC) and another from the College and Career Access Center (CCAC).

College and Career Access Counselors (CCAC) support students by providing academic and career counseling, course planning, guidance, and post-high school planning through a variety of programs and resources. CCAC counselors assist students in exploring their interests and abilities in conjunction with post-secondary outcomes, whether they include two- and four-year collegiate study, trade and technical pursuits, work experiences, or careers. Our CCAC also hosts college admissions counselors, military personnel and academies, and technical school representatives.

Student Services Counselors (SCC) support students develop strategies for conflict resolution, organization, time management, anxiety, and a multitude of social-emotional counseling needs to improve students' well-being. To accomplish these tasks, our SCC provides individual and group counseling services, educational programs, and information and resources.

Our counselors use a collaborative approach while seeking assistance from parents and teachers as they address students' academic and social-emotional needs. The multi-faceted approach provides greater focus on the student and his or her individual needs.

SCHOOL PSYCHOLOGIST

MNHS employs one (1) certified school psychologist whose primary responsibilities include assisting with behavioral or social/emotional concerns, psychological and educational assessment, and performing crisis intervention. Significant educational challenges referred to the school psychologist may require an assessment to determine the level of student needs, potential assignment of special education services, or modifications and accommodations within specific classes.

The psychologist assumes an integral role in the special education process and collaborates with IEP teams to make data-based educational and behavioral recommendations.

NCAA DIVISION I ACADEMIC ELIGIBILITY REQUIREMENTS

Full-Qualifier

College-bound student-athletes enrolling at an NCAA Division I school need to meet these academic requirements to practice, compete and receive an athletics scholarship in their first year of full-time enrollment.

- Complete 16 core courses in the appropriate areas.
    - Ten of the 16 core courses must be completed before the seventh semester (senior year) of high school.
    - Seven of the 10 core courses must be in English, math or natural/physical science.
- Earn a core-course GPA of at least 2.300.
- Earn an SAT combined score or ACT sum score matching the core-course GPA on the Division I sliding scale.
- Submit proof of graduation to the Eligibility Center.

Academic Redshirt

All Division I academic redshirts may receive an athletics scholarship and practice during their first year of full-time enrollment at a Division I school, but may NOT compete.

- Complete 16 core courses in the appropriate areas.
- Earn a core-course GPA of at least 2.000.
- Earn an SAT combined score or ACT sum score matching the core-course GPA on the Division I sliding scale.
- Submit proof of graduation to the Eligibility Center.

Please visit https://www.ncaa.org/sports/2014/10/24/play-division-i-sports.aspx for additional information regarding NCAA eligibility requirements.

STEM ACADEMY

The Marple Newtown STEM Academy aspires to create inquiry learning and growth through Advanced Placement (AP) courses and diverse elective offerings. The academy's course offerings and experiences therein are designed to promote innovative thinking in an evolving world.

Students within the academy are required to work toward earning an AP Capstone Diploma. The advanced diploma program signifies participating students have demonstrated college-level academic and research skills. It includes two foundation courses-AP Seminar and AP Research- in addition to four subject-specific AP courses in any subject for a total of six AP courses. Students must earn a 3 or greater on each exam to receive an AP Capstone Diploma.

Sequence of Required Courses

GRADE 9	STEM Design Thinking I	
GRADE 10	STEM Design Thinking II	STEM Elective Offering Encouraged
GRADE 11	AP Seminar	STEM Elective Offering Encouraged
GRADE 12	AP Research	STEM Elective Offering Encouraged

Elective Courses

- STEM Introduction to Engineering
- STEM Gaming and eSports
- STEM -ology
- STEM Audio Engineering and Composition
- STEM Health Sciences I
- STEM Health Sciences II
- Introduction to Java Programming
- Introduction to Python Programming

STEM ACADEMY: COURSE CATALOG

AP SEMINAR* **(NCAA approved course)**
9411* **Semester/1.0 credit** **Grade 11**

AP Seminar is an interdisciplinary course that encourages students to demonstrate critical thinking, collaboration, and academic research skills on topics of the student's choosing. To accommodate the wide range of student topics, typical college course equivalents include interdisciplinary or general elective courses. Students will develop and practice the skills in research, collaboration, and communication that you'll need in any academic discipline. You'll investigate topics in a variety of subject areas, write research-based essays, and design and give presentations both individually and as part of a team.

AP RESEARCH* **(NCAA approved course)**
9412* **Semester/1.0 credit** **Grade 12**

AP Research is an interdisciplinary course that encourages students to demonstrate critical thinking and academic research skills on a topic of the student's choosing. To accommodate the wide range of student topics, typical college course equivalents include introductory research or general elective courses. Students will build on what they learned in AP Seminar to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, you will design, plan, and conduct a research-based investigation to address a research question.

Prerequisite: Successful completion of AP Seminar

STEM DESIGN THINKING I
9420 **Term /0.5 credit** **Grade 9**

STEM Design Thinking I is a course about design-thinking. This course allows students to explore a problem-solving methodology especially suited for investigating imprecise problems where collaboration is paramount and the cycle of taking risks, experiencing failures and growth, and chasing successful outcomes are at the core. Design thinking emphasizes deep user understanding, iteration, and a focus on possibilities and multiple approaches to enhance value creation for stakeholders. You'll learn how to envision, explain, and evaluate solutions to a wide range of human problems involving information and interaction with hands-on inquiry and open-ended exploration. These skills include user research methods, visual and interaction design skills, methods for evaluating designs, and skills for communicating designs. Throughout the course students will work on three different challenges: one focused on themselves, one focused on MNHS, and one focused on the MNSD community. The primary vehicle for student learning is participation in team-based projects in the domains of media, engineering, and health.

STEM INTRODUCTION TO ENGINEERING
9421 **Term /0.5 credit** **Grades 10, 11, 12**

STEM Introduction to Engineering Design introduces 9th grade STEM Academy students to engineering concepts that focus on critical thinking and problem-solving. Group and individual activities engage students in creating ideas, developing innovations, and engineering practical solutions. Students will tackle design challenges by applying concepts of science, mathematics, and other curricular areas content to authentic situations.

STEM DESIGN THINKING II

9424 Term/0.5 credit Grade 10

STEM Design Thinking II is a course that focuses on the introduction to speech communication which emphasizes the practical skill of public speaking. This course allows for students to practice techniques for lessening speaker anxiety and using visual aids to enhance speaker presentations. The skill areas stressed are developing and organizing speech content, effective delivery of presentations, critical thinking, and active listening focused upon a specific pathway. This course promotes individuals in a biology, engineering, or communications pathway to develop clear, relevant speech content which has depth and breadth and is designed to engage the listener and add knowledge. The projects built into this course will allow students to explain in depth and demonstrate various research methods through logical discussion and written critiques of their own and others' speeches. Throughout the course, students will listen critically to interpersonal as well as public speaking messages regarding the biology, engineering, or communications pathway.

STEM GAMING AND eSPORTS

9426 Term/0.5 credit Grades 10, 11, 12

The Esports class is designed to present students the opportunity to work and apply many techniques that are utilized in the current video game industry. A combination of multiple Esports sources will be implemented into the progression of this course. Students will break down components of video games to its fundamental parts. Some of these parts relate to 3D rendering, game collision statements, coding and audio/ visual outputs. Students will be allowed to test their work and learn about where the industry started and where the industry is going.

STEM -OLOGY

9427 Term/0.5 credit Grades 10, 11, 12

Students will be exposed to different science disciplines within the "ology" category. This will be an opportunity for them to see if one of these other science courses would play a role in their future academic plans. The class would focus on small snippets of several science disciplines that end with "ology". These would include, zoology, entomology, plant physiology, and marine biology/oceanography. Since student's consistently ask about dissections, this could be an opportunity to bring in higher level learning activities. For example, students could dissect an organism from each "ology" and compare/contrast the organism. This will give the class some continuity between each "ology" and allow them to see how each discipline is connected.

STEM AUDIO ENGINEERING AND COMPOSITION

9428 Term/0.5 credit Grades 10, 11, 12

An introduction to music technology software and hardware, focused on basic acoustics, digital audio, MIDI, and MIDI sequencing and notation software. Lab activities will place an emphasis on the operation and components of the typical MIDI and digital audio lab (hardware and software). Students will complete independent projects in areas such as digital audio, music notation, and MIDI sequencing. In addition, students will create original compositions, applying them to projects and media found outside of the classroom environment. Please visit the MNHS

STEM HEALTH SCIENCES I

9430 **Term/0.5 credit** **Grades 10, 11, 12**

In the first unit of this course, students will become forensic scientists who must solve two crimes using skills of crime scene sketching, witness testimony, blood evidence, and DNA analysis. After graduating from their forensic scientist training, students will work together to solve a new case by gathering evidence from the scene and persons of interest, complete laboratory testing, and analyzing evidence. Students will create an evidence board as part of their court testimony.

In the second unit of this course, students will become doctors at the Total Care Clinic. Students will explore question techniques when speaking with patients, learn about the documentation of patient data and medical history, collect and analyze vital signs from a patient, analyze results of bloodwork, and make recommendations on ways to improve overall health and limit disease risk. At the end of this portion of the course, students will receive a new patient at the Total Care Clinic and will use medical evidence, vital signs, and evaluate bloodwork results to make a diagnosis.

Prerequisite: Successful completion of H Biology or Pre-AP Biology

STEM HEALTH SCIENCES II

9431 **Term/0.5 credit** **Grades 10, 11, 12**

In the first unit of this course, students are part of the Disease Defense Team and have been tasked to help identify the cause of an outbreak of a nosocomial infection. Working in groups, students are challenged to investigate the case, determine why and how patients are getting sick, and design a strategy to resolve the outbreak. Students will plan the design of an app that can be used to trace outbreaks, respond to emergencies, increase response efficiency in emergencies, and/or provide another public health function.

In the second unit of this course, students are interns at Innovation, Inc and learn about different areas of research, innovation, and design. Students will investigate innovation in medical device development as they design models for testing cardiac stents. Students will learn how computer-aided design (CAD) can be used for modeling and prototyping innovation. Students will finish the unit by designing a medical innovation.

Prerequisite: Successful completion of STEM Health Sciences I

INTRODUCTION TO JAVA PROGRAMMING **(NCAA approved course)**
3716 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course provides students with an opportunity to develop their basic programming skills using the Java programming language. This course is an introduction to the Java programming language for students with an interest in computer science. The course is designed for students with and without prior programming experiences and it teaches the fundamentals of the Java language. Through this course, students will learn Java primitive and non-primitive data types, control flow structures, built-in class libraries and object-oriented programming concepts such as classes and objects, and how to create and use elementary Graphic User Interfaces (GUIs). This class is the prerequisite for the AP Computer Science A course.

Prerequisite: Successful completion of Algebra I

INTRODUCTION TO PYTHON PROGRAMMING (NCAA approved course)
3770 Term/0.5 credit Grades 9, 10, 11, 12

This course introduces the Python programming language for students with or without prior programming experience. The course will identify data types, control flow, object-oriented programming and graphical user interface driven applications. The curriculum emphasizes students' understanding of the world's fastest growing and most popular programming language used by software engineers, analysts, data scientists and machine learning engineers alike.

Prerequisite: Successful completion of Algebra I

Please visit our MNHS STEM Academy website for additional information: https://sites.google.com/mnsd.org/mnhsstemacademy/home

ENGLISH

The Marple Newtown English program of study enables all learners to acquire knowledge and skills to become productive, responsible, literate citizens who possess an understanding and appreciation for English in a rapidly growing technological society. The program incorporates advanced and college preparatory courses along with electives.

All students are expected to successfully complete English each year in grades 9 through 12, accumulating a minimum of 4.0 CR required for graduation.

Sequence of Required Courses

GRADE 9	English 9: Literary Genres	
GRADE 10	English 10: World Literature I	
GRADE 11	English 11: American Literature	AP Language & Composition
GRADE 12	English 12: World Literature II	AP Literature & Composition

Elective Courses

- Ancient Greek Literature and Beyond
- Cinema Development and Appreciation
- Creative Writing
- Horror Literature through Film, Art, and Music
- Journalism
- Poetry
- Public Speaking
- Theatre As Living Art
- Women’s Literature of the Americas

Students may take English electives to satisfy *Other Electives* credit requirements, but not in place of required English courses. Placement in required English courses is based on teacher recommendation.

ENGLISH DEPARTMENT: REQUIRED COURSES

ENGLISH 9: LITERARY GENRES **(NCAA approved course)**
1410*, 1420, 1430, 1440+ **Semester/1.0 credit** **Grade 9**
This comprehensive program strengthens reading, writing, listening, and speaking skills. Students read selected works in various genres including novels, plays, short stories, and poetry. Vocabulary and SAT test-taking strategies are emphasized.

ENGLISH 10: WORLD LITERATURE I **(NCAA approved course)**
1510*, 1520, 1530, 1540+ **Semester/1.0 credit** **Grade 10**
Students study world literature, including selections from Old English, Middle English, Shakespeare, Modern, and 21st Century. Listening, speaking, vocabulary skills, SAT test-taking skills, and research are emphasized. Writing focuses on the skills needed to write clearly and logically. Students will be introduced to the fundamentals of research resulting in a required oral presentation.

ENGLISH 11: AMERICAN LITERATURE **(NCAA approved course)**
1610*, 1620, 1630, 1640+ **Semester/1.0 credit** **Grade 11**
Through the reading and analysis of a variety of American literary works, students will learn the evolution of American literature from its inception to present day. Composition, research, writing skills, vocabulary development, and SAT preparation are emphasized. The fundamentals of research are taught, including the development of a thesis. Successful completion of a major research paper is a requirement.

ENGLISH 11: AP* ENG LANGUAGE & COMPOSITION **(NCAA approved course)**
1614* **Semester/1.0 credit** **Grade 11**
The Advanced Placement English Language and Composition course is designed to provide students with reading and writing activities to help them gain rhetorical and textual power, making them more alert to an author's purpose, the needs of an audience, the demands of the subject, and the resources of language, including but not limited to diction, syntax, and tone. Because of the demanding curriculum, students must bring to the course sufficient command of mechanical conventions and an ability to read and discuss prose. The three main components of the course are reading, writing, and research.

MNHS offers AP English Language and Composition as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

ENGLISH 12: WORLD LITERATURE II **(NCAA approved course)**
1710*, 1720, 1730, 1740+ **Semester/1.0 credit** **Grade 12**

In this course, readings are representative of world literature and are arranged thematically. Various literary devices will be discussed, as they appear in a variety of works. Further development of reading skills, related vocabulary, and composition skills will be ongoing.

ENGLISH 12: AP* ENG LITERATURE & COMPOSITION **(NCAA approved course)**
1715* **Semester/1.0 credit** **Grade 12**

Students develop procedures for independent analysis of literary genres (novel, drama, short story, poetry, and prose). Readings are representative of world literature and are arranged thematically. Refinement of reading, composition, oral expression, and listening skills are accomplished by having each student complete a series of written analysis and initiatives. There is emphasis on expository writing as well as an opportunity for creative writing. Because of the demanding curriculum, students must bring to the course sufficient command of mechanical conventions and an ability to read and discuss prose.

MNHS offers AP English Literature and Composition as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

ENGLISH DEPARTMENT: ELECTIVE COURSES

READING STRATEGIES
1830 **Semester/1.0 credit** **Grade 9**

This course is designed for freshmen who need to improve overall reading skills. Phonics, comprehension, and fluency will be emphasized as needed. Study skills, textbook reading strategies, fiction and nonfiction reading, and writing will be taught. Groups are small so that individual attention and immediate feedback can be provided.

Prerequisite: Students must meet Reading placement criteria.

KEYSTONE LITERATURE REMEDIATION

1835 **Grade 11, 12**

This course is designed specifically for students who did not achieve Proficient on the Keystone Literature Exam. The focus will be on intensive review of literary devices, elements, and vocabulary as well as test preparation strategies.

Students are placed in Keystone Literature Remediation based on their performance on the Keystone Literature Exam or Act 158 Pathway.

READING SUPPORT

1841 **Semester/1.0 credit** **Grades 10, 11, 12**

Students in need of additional reading instruction may be placed into Reading Support. Reading Support is designed for students who need to improve overall reading skills. The purpose of this course is to address areas of need for individual students, and the goal is for students to demonstrate an increase in understanding and performance.

Prerequisite: Students are placed in reading support based on assessment data and teacher recommendation.

POETRY **(NCAA approved course)**

1870 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Drawing on sources ranging from the classic and formal to the contemporary, students will practice poetic techniques and will critically analyze a variety of poems.

THEATER AS LIVING ART

1871 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students selecting this course will learn that "the play's the thing." By studying, writing, designing, and performing classic and contemporary plays, as well as original dramas of their own, students will become proficient in the dramatic arts.

CINEMA DEVELOPMENT AND APPRECIATION

1872 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Film is a major form of art/communication in the 21st Century, and this course enables students to study the development of cinema from its beginnings, as well as giving them the information and skills needed to watch, evaluate, and write about any movie of artistic merit. In addition to viewing film highlights and entire movies, students demonstrate their understanding of cinema through written movie critiques, tests, and independent projects.

PUBLIC SPEAKING **(NCAA approved course)**

1873 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students gain experience in common speaking forms, including persuasive, demonstrative, and informative speeches; interview techniques; debate; commercial presentation; and oral interpretation.

JOURNALISM **(NCAA approved course)**

1874 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students receive training and practical experience in the various forms of journalistic writing. They will improve their journalistic writing through interpretive reporting, editorializing, planning, and writing.

CREATIVE WRITING **(NCAA approved course)**

1875 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Creative Writing is designed for students who wish to experiment in self-expression through writing. Writing emphasis is placed on imitating models, pre-writing techniques, examining various publishing venues, and exploring different forms. Students will study classic, modern, and contemporary writers, and their different styles. Students will write daily, keep a journal, participate in workshops, readings, and use the many styles of writing studied.

ANCIENT GREEK LITERATURE AND BEYOND (NCAA approved course)
1876 Term/0.5 credit Grades 9, 10, 11, 12
In this course, students will read and analyze two formative Greek works. Using those works as a starting point, students, through analyzing a variety of related works—including but not limited to novels, non-fiction, poetry, and art—will then understand how and why these works have "staying power." Students will demonstrate their appreciation of these works through writing and oral presentations.

HORROR LITERATURE THROUGH FILM, ART, AND MUSIC
1877 Term/0.5 credit Grades 9, 10, 11, 12
This course will study the macabre of Horror and Gothic through many different mediums (text, film, art, music, etc.). We will explore horror from the 18th - 21st centuries and see how the genre captures the pulse of our culture at particular historical moments. Additionally, students will discover, identify, and critique different horror genres in this semester course.

WOMEN'S LITERATURE OF THE AMERICAS (NCAA approved course)
1878 Term/0.5 credit Grades 9, 10, 11, 12
Focusing attention on the wealth of literature published by women of North, South, and Latin America, this course seeks to provide an opportunity for enriched study of the recurring themes present in 20th Century women's literature. These include, but are not limited to, storytelling and folklore, roles within the family, concepts of beauty, and reactions to war. Students should recognize that this is a reading and discussion-intensive course, with both written and oral requirements.

ENGLISH LANGUAGE LEARNERS I
1961 Semester/1.0 credit Grades 9, 10, 11, 12
English Language Learners is a required course for non-native speakers of English who need to develop proficiency in English. Emphasis is placed on reading, writing, speaking, and listening skills at the basic level. Students must meet ELL entrance criteria to enroll in this course.

ENGLISH LANGUAGE LEARNERS II
1962 Semester/1.0 credit Grades 9, 10, 11, 12
English Language Learners is a required course for non-native speakers of English who need to develop proficiency in English. Students continue to focus on reading, writing, speaking, and listening skills at an intermediate level. Students must meet ELL entrance criteria to enroll in his course.

ENGLISH LANGUAGE LEARNERS III
1963 Semester/1.0 credit Grades 9, 10, 11, 12
English Language Learners is a required course for non-native speakers of English who need to develop proficiency in English. Students in this course focus on in reading, writing, speaking, and listening skills at an independent level. Students must meet ELL entrance criteria to enroll in this course.

ENGLISH LANGUAGE LEARNERS SUPPORT

1964 | **Semester/1.0 credit** | **Grades 9, 10, 11, 12**

English Language Learners is a required course for non-native speakers of English who need to develop proficiency in English. This course is offered in conjunction with a required English class. Support is embedded for reading, writing, speaking, and listening skills during the class instruction. Students must meet ELL entrance criteria to enroll in this course.

SOCIAL STUDIES

The Marple Newtown Social Studies program of study enables all learners to learn the skills, acquire the knowledge, and develop the attitudes necessary to reach their full potential as citizens prepared to meet the challenges of a rapidly changing global society.

All students at Marple Newtown High School are expected to successfully complete social studies each year in grades 9 through 12, accumulating a minimum of 4.0 CR to meet MNHS graduation requirements.

Elective courses are offered, which can be used to complete *Other Electives* credit requirements.

Sequence of Required Courses

GRADE 9	World Civilizations I	AP Human Geography	
GRADE 10	World Civilizations II	AP European History	AP World History
GRADE 11	20th Century American History	AP United States History	AP African American Studies
GRADE 12	Political and Economic Issues	AP Macro Economics	AP Government

Elective Courses

- America's Civil Wars
- AP Psychology
- International Relations
- Leadership and Character
- Psychology
- Sociology
- The Civil Rights Movement
- Vietnam and the War on Terror
- World War I and World War II

Students may take Social Studies electives to satisfy *Other Elective* credit requirements, but not in place of required Social Studies courses. Placement in required Social Studies courses is based on teacher recommendation.

SOCIAL STUDIES DEPARTMENT: REQUIRED COURSES

WORLD CIVILIZATIONS & CULTURES I **(NCAA approved course)**
2410*, 2420, 2430 **Semester/1.0 credit** **Grade 9**
World Civilizations and Cultures I is designed to give students a greater understanding of global events and trends through the study of the interaction of world societies through the ages. Students will learn how human views of the world have changed over time and analyze the changing relationships between and among world civilizations. Beginning with an examination of the earliest civilizations, students will continue a chronological study of world history through the Middle Ages. The development of writing skills, analysis of primary sources, making comparisons, and effective teamwork will be emphasized.

Note: The honors level course offering is designed to prepare students for the 10th grade Advanced Placement courses. Additionally, a series of performance assessments are centered on the yearly National History Day theme. Each year there is a different theme, and students are required to participate in the history day project.

AP HUMAN GEOGRAPHY* **(NCAA approved course)**
2415* **Semester/1.0 Credit** **Grade 9**
The AP Human Geography course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students learn to employ special concepts and landscape analysis to examine human socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications. There are no prerequisites for AP Human Geography; however, students entering the AP Human Geography course should be capable of reading and comprehending texts written at the college level. Students should be able to summarize and evaluate textual information, read, and interpret maps and graphic date, perform basic mathematical operations, and possess fundamental skills in composition and research.

WORLD CIVILIZATIONS & CULTURES II **(NCAA approved course)**
2510*, 2520, 2530 **Semester/1.0 credit** **Grade 10**
In year two of World Civilizations & Cultures, students will continue to develop their understanding of the world and the societies which populate it. Building on the study done in World Civilizations & Cultures I, students will continue the chronological study of world history from 1450 to the present. The development of writing skills, analysis of primary sources, making comparisons, and effective teamwork will be emphasized.

AP WORLD HISTORY* **(NCAA approved course)**
2515* **Semester/1.0 credit** **Grade 10**
The purpose of the AP World History course is to develop a greater understanding of the evolution of global processes and contacts in different types of human societies. The course highlights the nature of changes in global frameworks and their causes and consequences, as well as comparisons among major societies. AP World History offers an approach that lets students "do history" by guiding them through the steps a historian would take in analyzing historical

events and evidence worldwide. The course offers balanced global coverage, with Africa, the Americas, Asia, Europe, and Oceania all represented.

AP MODERN EUROPEAN HISTORY* **(NCAA approved course)**
2516* **Semester/1.0 credit** **Grade 10**

Advanced Placement Modern Europe presents a detailed study of the history of Europe from 1450 to present. Students will analyze the social, intellectual, and political transition of Europe to the present while tracing significant themes of modern European history. Work in this course requires historical analyses of supplementary readings.

20TH CENTURY AMERICA **(NCAA approved course)**
2610*, 2620, 2630 **Semester/1.0 credit** **Grade 11**

This survey of 20th century American history begins with the foreign policy events at the dawn of the 20th century and continues through to the early years of the 21st century. Students will view history through political, social, and economic lenses and examine a variety of primary and secondary sources to provide a balanced perspective of 20th century American history.

AP UNITED STATES HISTORY* **(NCAA approved course)**
2615* **Semester/1.0 credit** **Grade 11**

In this chronological survey of US history, students discover how America developed from the earliest years of European settlement to the present using the tools of historians. Exposure to a rich variety of primary and secondary sources, interactive lessons, and a wide range of writing and technology are part of the AP US History experience.

AP AFRICAN AMERICAN STUDIES* **(NCAA approved course)**
2716* **Semester/1.0 credit** **Grade 11**

AP African American Studies is a multi-disciplinary course designed to offer students an evidence-based introduction to African American studies, drawing from the expertise and experience of college faculty and teachers across the country. The interdisciplinary course reaches into a variety of fields-literature, the arts and humanities, political science, geography, and science-to explore the vital contributions and experiences of African Americans.

The course will focus on an analysis of themes to create meaningful connections across units of study. A sampling of themes embedded within the course include migration and the African diaspora; freedom, enslavement, and resistance; and intersections of identity, creativity, expression, and the arts.

POLITICAL AND ECONOMIC ISSUES **(NCAA approved course)**
2710*, 2720, 2730 **Semester/1.0 credit** **Grade 12**

Both government and economics are part of this 12th grade social studies requirement. The economic focus is on the many forces which interact in our effort to satisfy unlimited wants with limited economic resources. In the study of government, emphasis is placed on the way our political system works with an examination of the three branches of the federal government as well as state and local governments and the rights and responsibilities of citizenship.

AP MACROECONOMICS* **(NCAA approved course)**
2711* **Semester/1.0 credit** **Grade 12**

This course provides students with the foundational tools for economic thinking. It includes a study of Microeconomics, which examines actions taken by individual consumers and producers within economic systems. Students analyze how these stakeholders enter business decisions, including market competition, government oversight, and production of goods and services.

Macroeconomics, developed in the 20th Century as a response to the Great Depression, examines our complex domestic and global economic systems. It allows students to observe and assess the health of an economy, how governmental policies attempt to create economic stability and growth, and the functioning and interdependence of international trade and finance.

MNHS offers AP Macroeconomics as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP U. S. GOVERNMENT & POLITICS* **(NCAA approved course)**
2715* **Semester/1.0 credit** **Grade 12**

This Advanced Placement course is an in-depth examination of the American political system along with a comparative study of selected world governments. Major themes include: our constitutional foundations, political beliefs and behaviors, political parties and interest groups, institutions and policy processes of national government, and civil rights and civil liberties.

MNHS offers AP Government and Politics as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

SOCIAL STUDIES DEPARTMENT: ELECTIVE CHOICES

AP PSYCHOLOGY* **(NCAA approved course)**
2810* **Semester/1.0 credit** **Grades 11, 12**
The AP Psychology course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

Prerequisite: Successful completion of Psychology

Note: As an elective, this course cannot be taken in place of any Social Studies course required for graduation.

MNHS offers AP Psychology as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

SOCIOLOGY **(NCAA approved course)**
2870 **Term/0.5 credit** **Grades 10, 11, 12**
Sociology is the study of human beings and their relationships to others in society. Students examine human cultural heritage and its impact on individual personality and life style. Among the topics covered are social institutions, socialization, social stratification, and social change. Issues such as marriage and the family, crime and punishment, the population explosion, minority groups, and rural and urban living are part of the focus of the course.

PSYCHOLOGY **(NCAA approved course)**
2871 **Term/0.5 credit** **Grades 10, 11, 12**
The goal of this course is to help students develop a better understanding of human behavior. The theories and methods of psychologists are emphasized. Topics include: psychology as a science, how we learn and become who we are, the role of the brain, sensation and perception, and personality theories. Conducting experiments is an important component of the course.

AMERICA'S CIVIL WARS **(NCAA approved course)**
2872 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course is offered to help students better understand the Revolutionary War and the Civil War. Topics covered will include the background and causes of each war. In studying the Revolutionary War, focus on the causes of the war will lead to the study of the Revolution in the

North, then the Middle States, and finally the South. The course will conclude with the surrender at Appomattox Court House.

INTERNATIONAL RELATIONS **(NCAA approved course)**
2874 **Term/0.5 credit** **Grades 9, 10, 11, 12**
The topics of study for this course are taken from international problems that currently face the United States, our diplomats, and policy makers. Each topic is examined in terms of its historical background, the national interests of the various countries involved, and subsequent actions taken by those countries in light of their interests. A major goal is to understand the national interests of other countries so that the impact of the United States policy decisions on other peoples of the world can better be evaluated.

THE CIVIL RIGHTS MOVEMENT **(NCAA approved course)**
2875 **Term/0.5 credit** **Grades 9, 10, 11, 12**
In this elective course, students will examine the struggle waged by Black Americans and their white allies against white supremacy and racial discrimination in the 1950's and 1960's. A wide variety of technology and authentic resources will bring the dynamics, achievements, and limitations of the civil rights movement to life.

LEADERSHIP AND CHARACTER
2878 **Term/0.5 credit** **Grades 9, 10, 11, 12**
Leadership and Character is designed to give students the opportunity to analyze their responsibilities and commitments in the context of leadership as described in this course. Students will explore the concept of leadership and develop the skills necessary to become successful students and members of society. The course includes the study of leadership through psychology, sociology, and biography, as well as the application of leadership theories, concepts, and skills to develop students' own leadership potential. Students will complete personal and leadership self- assessments, explore values, and apply leadership skills through course activities.

WWI AND WWII
2880 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course provides discussion and analyses into America's involvement in WWI and WWII. The course explores both wars from their discrete causes through their significant military campaigns to global consequences. It discusses economic, geopolitical, and moral consequences of the most wide-reaching wars ever fought. As students examine major battles, they focus on leadership decisions that determined the strategic outcomes of both wars. Discussions, debates, and submissions will offer analyses derived from the study of primary and secondary sources.

VIETNAM AND THE WAR ON TERROR
2881 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course examines American and global involvement in the Vietnam War and War on Terror. Students identify main phases of both conflicts, and explore the strategies, internal debates, and disagreements that led to policymaking during and afterward. Primary and secondary sources will foster discussion regarding costs, civil liberties, global security, and America's standing in the world.

MATHEMATICS

The Marple Newtown mathematics program of study enables all learners to successfully complete courses in Algebra I, Geometry, and Algebra II. They serve as a foundation for future mathematical inquiry and understanding. A TI-84 Plus C or a TI-84 graphing calculator is required.

Students must attain 7.0 CR in mathematics and science to meet MNHS graduation requirements. The seventh credit may be attained through designated electives in either math or science.

Students who choose to register for two math courses in a given school year may be enrolled in both courses concurrently based on section and/or staff availability.

Standard Sequence of Required Courses

GRADE 9	Algebra I		
GRADE 10	Geometry		
GRADE 11	Algebra II or Algebra II/Trig		
GRADE 12	Precalculus	Trigonometry	Statistics

Potential Enriched Sequence of Standard Courses

GRADE 9	H Geometry	H Algebra II/Trig	
GRADE 10	H Algebra II/Trig	H Precalculus	H Discrete Math
GRADE 11	H Precalculus	H Discrete Intro to Calculus	AP Calculus AB
GRADE 12	AP Calculus AB	AP Statistics	AP Calculus BC

Elective Courses that Fulfill Mathematics Graduation Requirement

Grades 9, 10, 11, 12

- AP Computer Science Principles
- Math for Life and Work
- Personal Finance

Grades 10, 11, 12

- AP Computer Science A
- AP Statistics
- Honors Discrete Math and Intro to Calculus
- Honors Statistics
- Introduction to Statistics
- Logic
- Precalculus
- Trigonometry

Elective Courses that Fulfill *Other Electives* Credits Requirement

Grades 9, 10, 11, 12

- Introduction to Java Programming
- Introduction to Python Programming

MATHEMATICS DEPARTMENT: REQUIRED COURSES

ALGEBRA I **(NCAA approved course)**
3420, 3430 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
This course will cover the specified eligible content for Algebra I as outlined by the Pennsylvania Department of Education. The following anchors will be addressed: Operations with Real Numbers and Expressions, Linear Equations, Linear Inequalities, Functions, Coordinate Geometry, and Data Analysis.

ALGEBRA I – PART A **(NCAA approved course - .5 credit)**
3440+ **Semester/1.0 credit** **Grade 9**
This course is designed for students who are performing below grade level in mathematics and need additional support as they begin Algebra. This course will begin to cover the specified eligible content for Algebra I as outlined by the Pennsylvania Department of Education. The following anchors will be addressed: Operations with Real Numbers and Expressions, Linear Equations, and Linear Inequalities.

+ Enrollment in this course requires an IEP

ALGEBRA I – PART B **(NCAA approved course - .5 credit)**
3540+ **Semester/1.0 credit** **Grade 10**
This course is designed to follow Algebra I Part A and it will cover the remaining specified eligible content for Algebra I as outlined by the Pennsylvania Department of Education. The three anchors covered in Part A – Operations with Real Numbers and Expressions, Linear Equations, and Linear Inequalities – will be reviewed before addressing the following anchors: Functions, Coordinate Geometry, and Data Analysis.

+ Enrollment in this course requires an IEP

GEOMETRY **(NCAA approved course)**
3510*, 3520, 3530, 3541+ **Semester/1.0 credit** **Grades 9, 10, 11, 12**
Each Geometry course will cover the specified eligible content for Geometry as outlined by the Pennsylvania Department of Education. The following anchors will be addressed: Properties of Circles, Spheres and Cylinders, Properties of Polygons and Polyhedra Congruence, Similarity and Proofs, Coordinate Geometry and Right Triangles, Measurements of Two-Dimensional Shapes and Figures, and Measurements of Three-Dimensional Shapes and Figures.

Prerequisite: Successful completion of Algebra I

ALGEBRA II/TRIGONOMETRY **(NCAA approved course)**
3610*, 3620 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
Each Algebra II course will cover the specified eligible content for Algebra II as outlined by the Pennsylvania Department of Education. The following anchors will be addressed: Operations with Complex Numbers, Non-Linear Expressions, Non-Linear Equations, Patterns, Relations, and Functions, Applications of Functions, and Data Analysis.

Prerequisites: Successful completion of Algebra I and Geometry

ALGEBRA II **(NCAA approved course)**
3630, 3640+ **Semester/1.0 credit** **Grades 9, 10, 11, 12**
This course will cover the specified eligible content for Algebra II as outlined by the Pennsylvania Department of Education. The following anchors will be addressed: Operations with Complex Numbers, Non-Linear Expressions, Non-Linear Equations, Patterns, Relations, and Functions, Applications of Functions, and Data Analysis.

Prerequisites: Successful completion of Algebra I and Geometry

+ Enrollment in this course requires an IEP

MATHEMATICS DEPARTMENT: ELECTIVE CHOICES

PRE-CALCULUS **(NCAA approved course)**
3710*, 3720 **Semester/1.0 credit** **Grades 10, 11, 12**
Each pre-calculus course introduces students to the vocabulary of functions. Students learn concepts, such as domain, range, symmetry, continuity, end behavior, extrema, and periodicity. Functions, including polynomial, rational, exponential, logarithmic, and trigonometric, are covered to develop fundamental analysis skills.

Prerequisite: Successful completion of Algebra II/Trigonometry

H DISCRETE MATH AND INTRO TO CALCULUS* **(NCAA approved course)**
3711* **Semester/1.0 credit** **Grades 10, 11, 12**
The topics in the Discrete Math course cover content areas not normally covered in any other mathematics course. Part I is the Mathematics of Social Choice: voting, weighted voting and power, fair division, and apportionment methods. Part II is Management Science: Graph theory, shortest network problems and scheduling, using directed graphs, and critical paths. Part III topics are related to Growth and Symmetry: Fibonacci numbers, the Golden Ratio, Population Growth, Symmetry and transformational geometry, and Fractal Geometry. Part IV is an Introduction to Calculus that includes graphs of polynomial and rational functions, limits, the derivative, and techniques of differentiation.

Prerequisite: Successful completion of a Pre-Calculus course

AP STATISTICS* **(NCAA approved course)**
3712* **Semester/1.0 credit** **Grades 10, 11, 12**
This AP course is intended to introduce students to the major components of collecting, analyzing, and drawing conclusions from data. Students will be exposed to exploring data, planning a study, conducting an experiment, anticipating patterns, and statistical inference. Emphasis will also be placed on hypothesis testing and tests comparing two parameters. The topics covered are those outlined by the College Board.

Prerequisite: Successful completion of Algebra II/Trigonometry

Note: This may be taken concurrently with Discrete Math, Pre-Calculus, Calculus, or Computer Science

MNHS offers AP Statistics as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP CALCULUS AB* **(NCAA approved course)**
3713* **Semester/1.0 credit** **Grades 11, 12**

The content of this course includes functions, graphs, limits, derivatives, and integrals. The course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. This course is roughly equivalent to a first-semester college Calculus course.

Prerequisite: Successful completion of a Pre-Calculus course

MNHS offers AP Calculus AB as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP CALCULUS BC* **(NCAA approved course)**
3714* **Semester/1.0 credit** **Grades 11, 12**

This course emphasizes a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. Calculus BC is an extension of Calculus AB. Common topics in the two AP Calculus courses require a similar depth of understanding. The additional content in this course includes polynomial approximations and series. This course is roughly equivalent to both first and second semester college Calculus courses.

Prerequisite: Successful completion of AP Calculus AB

MNHS offers AP Calculus BC as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP COMPUTER SCIENCE A* (NCAA approved course)
3715* Semester/1.0 credit Grades 10, 11, 12

This AP course is offered to those students with excellent problem-solving ability and a keen interest in computer science as a career. The focus of this course is to provide students with a conceptual background in computer science. The major emphasis is on programming methodology, algorithm design, and object-oriented programming in the Java language.

Prerequisite: Intro to Java Programming

Note: This may be taken concurrently with H Discrete Math and Intro to Calculus, Pre-Calculus, Calculus, or Statistics

MNHS offers AP Computer Science A as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

INTRODUCTION TO JAVA PROGRAMMING (NCAA approved course)
3716 Term/0.5 credit Grades 9, 10, 11, 12

This course provides students with an opportunity to develop their basic programming skills using the Java programming language. The course is designed for students with and without prior programming experiences and it teaches the fundamentals of the Java language. Through this course, students will learn Java primitive and non-primitive data types, control flow structures, built in class libraries and object-oriented programming concepts such as classes and objects, and how to create and use elementary Graphic User Interfaces (GUIs). This class is the prerequisite for the AP Computer Science A course.

Prerequisites: Successful completion of Algebra I

Note: Students may enroll concurrently in Geometry and Java Programming

AP COMPUTER SCIENCE PRINCIPLES* (NCAA approved course)
3717* Semester/1.0 credit Grades 9, 10, 11, 12

AP Computer Science Principles offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. This course will give students the opportunity to use technology to address real-world problems and build relevant solutions. Together, these aspects of the course make up a rigorous and rich curriculum that aims to broaden participation in computer science. This course is designed to appeal to a broader audience, instilling the ideas and practices of computational thinking, and inviting students to understand how computing changes the world. Students will develop innovative computational artifacts using the same creative processes that artists, writers, computer scientists, and engineers use to bring ideas to life.

TRIGONOMETRY **(NCAA approved course)**
3721 **Term/0.5 credit** **Grades 10, 11, 12**
This trigonometry course covers relationships of angles and sides in right triangles. The concept of the unit circle will also be used to cover the trigonometric ratios. The Law of Sines and the Law of Cosines will both be covered. The graphing calculator is used extensively throughout this course.

Prerequisite: Successful completion of Algebra II

INTRODUCTION TO STATISTICS **(NCAA approved course)**
3722 **Term/0.5 credit** **Grades 10, 11, 12**
This statistics course covers the basics of data collection, descriptive statistics, bivariate statistics, probability, random variables, and the normal distribution.

Prerequisite: Successful completion of Algebra II or Algebra II/Trigonometry

H STATISTICS* **(NCAA approved course)**
3723* **Semester/1.0 credit** **Grades 10, 11, 12**
The content of this course is intended to introduce students to major components of collecting, analyzing, and drawing conclusions from data. Students will be exploring data, planning a study, and conducting an experiment, while also investigating patterns and statistical inferences.

Prerequisite: Successful completion of Algebra II or Algebra II/Trigonometry

MATH FOR LIFE AND WORK
3724 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course will explore fundamental math skills, using practical applications in everyday life and specific industries. This course will show the importance of understanding concepts, including percentages, in daily living. This course will show the importance of measurement and geometric relationships in various trades. Students will gain confidence with the math needed in their personal lives and future professional careers. Students planning to take the ASVAB or attend a post-graduate technical school are encouraged to consider this course as a mathematics elective.

PERSONAL FINANCE
3725 **Term/0.5 credit** **Grades 9, 10, 11, 12**
The essentials of quantitative literacy needed to be an intelligent consumer including the principles of investing, interest, and debt will be covered. Students will learn how to use the Finance application on the TI calculators. Life-long skills of money management will be presented.

Prerequisite: Successful completion of Algebra I

LOGIC
3726 **Term/0.5 credit** **Grades 10, 11, 12**
This course will study the science of reasoning and argumentation. Training ourselves to construct effective arguments and to spot weak ones finds usefulness in every program of student and everyday life. Effective reasoning steers one in the direction of truth and away from falsehood. Students will learn how to construct and recognize valid deductive arguments, examine categorical propositions and their components including Venn Diagrams and Truth Tables. Logic instills a sensitivity for the formal component in language, which is necessary to exercise clear, effective, and meaningful communication.

Prerequisite: Successful completion of Algebra II or Algebra II/Trigonometry

INTRODUCTION TO PYTHON PROGRAMMING **(NCAA approved course)**
3770 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course introduces the Python programming language for students with or without prior programming experience. The course will identify data types, control flow, object-oriented programming and graphical user interface driven applications. The curriculum emphasizes students' understanding of the world's fastest growing and most popular programming language used by software engineers, analysts, data scientists and machine learning engineers alike.

Prerequisite: Successful completion of Algebra I

ALGEBRA I KEYSTONE REMEDIATION
3835 **Grades 9, 10, 11, 12**
This course is designed specifically for students who did not achieve Proficient on the Keystone Algebra Exam. The focus will be on intensive review of algebraic concepts as well as test preparation strategies.

Students are placed in Keystone Algebra Remediation based on their performance on the Keystone Algebra Exam or Act 158 Pathway.

SCIENCE

The Marple Newtown science program of study enables all learners to become scientifically literate citizens through practical application. Significant importance is placed on developing an understanding of the world around us. Course offerings afford students opportunities to demonstrate critical thinking through the scientific process.

Students are required to attain 7.0 CR in mathematics and science to meet MNHS graduation requirements. The seventh credit may be attained through designated electives in either math or science.

Standard Sequence of Required Courses

GRADE 9	Integrated Science				
GRADE 10	Biology				
GRADE 11	Chemistry				
GRADE 12	Physics	Wildlife	Env Science	Forensic Science	Anatomy & Physiology

Potential Enriched Sequence of Courses

GRADE 9	H Biology or Pre-AP Biology
GRADE 10	H Chemistry
GRADE 11	H Physics
GRADE 12	AP Course* (i.e., AP Biology, AP Chemistry, AP Environmental Science, AP Physics

*These courses also have a minimum mathematics prerequisite. See course description.

Elective Courses that Fulfill Science Graduation Requirement

Grades 10, 11, 12

- Wildlife Conservation

Grades 11, 12

- Environmental Science
- Forensic Science
- Anatomy and Physiology

SCIENCE DEPARTMENT: REQUIRED COURSES

INTEGRATED SCIENCE **(NCAA approved course)**
4410*, 4420, 4430 **Semester/1.0 credit** **Grade 9**
Integrated Science is an introductory high school science course designed for 9th graders bringing together elements of several science disciplines. The course will introduce the foundational, key concepts and skills in Physical Science, Earth Science, and Ecology necessary for subsequent studies in Biology and Chemistry.

PRE-AP BIOLOGY **(NCAA approved course)**
4411* **Semester/1.0 credit** **Grades 9, 10**
Pre-AP Biology sparks student motivation and critical thinking about our living world as they engage in real-world data analysis and problem solving. Through the Areas of Focus, students engage deeply with science practices to construct and refine their biological knowledge and strengthen their cross-disciplinary reading, writing, and mathematical skills as they analyze data. Pre-AP Biology fosters student growth as they make meaningful connections among the structures, processes, and interactions that exist within and across living systems-from cells to ecological communities. Pre-AP Biology motivates students to be active participants in analyzing real-world phenomena and to collaborate productively with their peers in dialogue, investigations, and problem solving.

BIOLOGY **(NCAA approved course)**
4510*, 4520, 4530 **Semester/1.0 credit** **Grade 10**
Each Biology course will cover the specified eligible content as outlined by the Pennsylvania Department of Education. The following eight anchors will be addressed: biochemistry, ecology, evolution, bioenergetics, homeostasis, transport, cells, and genetics.

Prerequisite: Successful completion of an Integrated Science course

CHEMISTRY **(NCAA approved course)**
4610*, 4620, 4630 **Semester/1.0 credit** **Grade 11**
Chemistry is the science concerned with the composition, behavior, structure, and properties of matter, as well as the changes matter undergoes during chemical reactions. Studied topics include atomic structure and bonding, chemical formulas, solutions, and energy transformations.

Prerequisite: Successful completion of a Biology course. Recommended: A Geometry course (can be taken concurrently)

PHYSICS **(NCAA approved course)**
4710*, 4720, 4730 **Semester/1.0 credit** **Grade 12**
Physics is the study of matter, energy, and the interactions between them. Unifying fundamental concepts are developed which tie together seemingly unrelated observations. Topics that are studied include the nature of science, motion, forces, gravity, momentum, energy, static and current electricity, magnetism, and waves.

Prerequisite: Successful completion of a Chemistry course

SCIENCE DEPARTMENT: ELECTIVE CHOICES

AP BIOLOGY* **(NCAA approved course)**
4515* **Three Terms/1.5 credits** **Grades 11, 12**
Each Biology course will cover the specified eligible content as outlined by the Pennsylvania Department of Education. The following eight anchors will be addressed: biochemistry, ecology, evolution, bioenergetics, homeostasis, transport, cells, and genetics.

Prerequisites: Successful completion of Integrated Science, Biology, and Chemistry

MNHS offers AP Biology as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP CHEMISTRY* **(NCAA approved course)**
4615* **Three Terms/1.5 credits** **Grade 12**
A course covering advanced topics from Chemistry.

Prerequisites: Successful completion of Integrated Science, Biology, and Chemistry

MNHS offers AP Chemistry as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP ENVIRONMENTAL SCIENCE* **(NCAA approved course)**
4616* **Semester/1.0 credit** **Grade 12**
A course offering advanced topics from Earth Science, Biology, and Chemistry. Environmental Science is interdisciplinary within the realm of science and aims to provide students with the scientific principles, concepts, and methodologies required to understand the natural world and their place in it.

Prerequisites: Successful completion of Integrated Science, Biology, and Chemistry

MNHS offers AP Environmental Science as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

AP PHYSICS I* **(NCAA approved course)**
4715* **Semester/1.0 credit** **Grade 12**
A course covering advanced topics from Physics.

Prerequisites: Successful completion of Integrated Science, Biology, Chemistry, and H Physics

Recommended: Calculus AB or Calculus BC (can be taken concurrently)

MNHS offers AP Physics I as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

BIOLOGY KEYSTONE REMEDIATION
4835 **Grades 10, 11, 12**
This course is designed specifically for students who did not achieve Proficient on the Keystone Biology Exam. The focus will be on intensive review of biological concepts as well as test preparation strategies.

Students are placed in Keystone Biology Remediation based on their performance on the Keystone Biology Exam or Act 158 Pathway.

WILDLIFE CONSERVATION
4870 **Term/0.5 credit** **Grades 10, 11, 12**
Principles of ecology are applied to population and habitat management towards wildlife conservation. In this course, students learn about local and global issues in conservation and the pathways humans use to resolve these issues throughout the world. The effects of natural resource use and climate change on wildlife are emphasized.

Prerequisite: Successful completion of Biology

ENVIRONMENTAL SCIENCE **(NCAA approved course)**
4871 **Term/0.5 credit** **Grades 11, 12**
Environmental Science is a course designed to provide students with the content and skills needed to identify and analyze environmental problems and to examine solutions to these problems. Course content will include food and water resources, energy efficiency, and renewable energy alternatives, pollution, and waste management.

Prerequisites: The successful completion of three 1-credit science courses OR the completion of two required 1-credit science courses and enrollment in the third 1-credit required science course

FORENSIC SCIENCE **(NCAA approved course)**
4872 **Term/0.5 credit** **Grades 11, 12**
Forensic science is the application of basic biological, chemical, and physical science principles to the purpose of criminal justice. Major themes of study in this course include pathology, chemical analysis of substances, biological fluids, trace evidence, DNA, fingerprints, impression evidence, hand-writing analysis, and forensic psychiatry/psychology.

Prerequisites: The successful completion of three 1-credit science courses OR the completion of two required 1-credit science courses and enrollment in the third 1-credit required science course.

ANATOMY AND PHYSIOLOGY **(NCAA approved course)**
4874 **Semester/1.0 credit** **Grades 11, 12**
This laboratory-based course is intended for students who are interested in pursuing a medical/health-related career. The class will provide an in-depth study of both anatomy - the structures of the human body, and physiology - the functions of those structures within the body. Students will design experiments, investigate health problems, make diagnoses, and use lab sensors to monitor body functions such as muscle movement, nerve function, and respiration. Upon completion, students should be able to demonstrate a more complete understanding of organ systems and how they contribute to normal body functions.

Prerequisite: Successful completion of college-preparatory Biology

WORLD LANGUAGES

Speak a World Language–Say "Hello" to the World! In the small, interdependent world of today, the ability to communicate with those with whom around the globe has become a survival skill. Equipped with second language skills, students will greatly expand their horizons and career options.

Marple Newtown High School's world language program of study provides an opportunity to develop language proficiency in French and Spanish in the three modes of communication: interpretive, interpersonal, and presentational as defined in the Standards for Foreign Language Learning in the 21st Century. At the conclusion of the program, students can reach the pre-advanced level of proficiency in each of the three modes as described in the ACTFL Performance Guidelines for K-12 Learners.

Students are required to attain a minimum of one (1) credit within a world language program of study while attending Marple Newtown High School. However, it is recommended students exceed the minimum requirement within the same language to develop advanced-level skills.

Due to the cumulative nature of language acquisition, it is strongly recommended students earn a C- or 70% before advancing to the next sequential course.

Standard Sequence of Courses

GRADE 9	Spanish I/French I	Spanish II/French II
GRADE 10	Spanish II/French II	Spanish III/French III
GRADE 11	Spanish III/French III	Spanish IV/French IV
GRADE 12	Spanish IV/French IV	H Spanish V/H French V

Potential Enriched Sequence of Courses

GRADE 9	H Spanish IV	H French IV
GRADE 10	H Spanish V	H French V
GRADE 11	H Advanced Spanish Studies	AP French Language and Culture
GRADE 12	AP Spanish Language and Culture	

WORLD LANGUAGE DEPARTMENT: SPANISH

SPANISH I **(NCAA approved course)**
5320 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
Spanish I serves as an introduction to the Spanish language and the many cultures of Spanish speaking countries. Utilizing listening, speaking, reading, writing, and presentation skills, students will be demonstrating understanding of a variety of topics relevant to their daily lives. Multimedia materials are incorporated into the curriculum to enhance student learning.

SPANISH II **(NCAA approved course)**
5420 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
In Spanish II, students will continue their study of the Spanish language and cultures by expanding their vocabulary, grammar, and multicultural understanding. Students will be exposed to authentic text and multimedia materials that will further their communicative proficiency and appreciation.

SPANISH III **(NCAA approved course)**
5520 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
Spanish III provides students with opportunities to elaborate on the vocabulary, grammar, and cultural topics learned in prior courses. Emphasis is placed on improving student reading, writing, speaking, listening, and presentation skills. Authentic and multimedia materials continue to be incorporated to enhance student learning and experience.

H SPANISH IV* **(NCAA approved course)**
5610* **Semester/1.0 credit** **Grades 9, 10, 11, 12**
Spanish IV Honors allows students to continue their development of listening, speaking, reading, writing, and presentation skills within the context of a challenging and enriched curriculum. Both a comprehensive textbook program and a variety of supplementary and multimedia materials are utilized to heighten interest, enhance cultural understanding, and maximize achievement.

SPANISH IV **(NCAA approved course)**
5620 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
In Spanish IV, students will continue to develop the active language skills through spoken and written activities at a more advanced level. Cultural appreciation is enhanced through supplemental listening and reading activities as well as multimedia materials. Written composition also receives increased emphasis.

H SPANISH V* **(NCAA approved course)**
5710* **Semester/1.0 credit** **Grades 9, 10, 11, 12**
In Spanish V Honors students will continue to develop their knowledge of the Spanish language through listening, speaking, writing, and reading activities. Grammar will be an important aspect of this course, as previously learned concepts will be strengthened and new grammar forms will be introduced and developed. Using the various vocabulary units, students will learn to converse with more ease, as well as communicate with higher accuracy in well-developed written compositions and read short selections of Spanish literature.

H ADVANCED SPANISH STUDIES* **(NCAA approved course)**
5711* **Semester/1.0 credit** **Grades 11, 12**
The Advanced Spanish Studies course is a curriculum that is an enriched, accelerated program which focuses on introducing and developing College Board strategies. A greater retention and appreciation of prior knowledge is expected as there is a great deal of focus on communication and pronunciation of the target language in this course. Advanced grammar and vocabulary is developed through various activities involving current events and cultural topics, literary readings, film, and conversational scenarios. This course also teaches the skills necessary for success in the AP Spanish course.

AP SPANISH LANGUAGE AND CULTURE* **(NCAA approved course)**
5712* **Semester/1.0 credit** **Grade 12**
AP Language and Culture courses strive to promote fluency and accuracy in language use. Students are engaged in the exploration of culture in both contemporary and historical contexts by reading, listening, and responding to a variety of authentic texts from literature, magazines, news broadcasts, films, etc. The goal of the course is proficient written and spoken communication in the target language. All classes are conducted in Spanish.

MNHS offers AP Spanish Language and Culture as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

WORLD LANGUAGE DEPARTMENT: FRENCH

FRENCH I **(NCAA approved course)**
5321 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
French I introduces students to the French language and the many francophone countries in the world. The course presents vocabulary and basic grammatical structures. Students learn to communicate opinions and feelings in French and exchange information in short oral or written sentences. Students begin to use French to discuss short reading selections and audiovisual texts from francophone cultures. The textbook program in French I and II offers listening practice via CD's and a DVD, as well as a variety of online resources.

FRENCH II **(NCAA approved course)**
5421 **Semester/1.0 credit** **Grades 9, 10, 11, 12**
In French II students will continue to develop their communicative proficiency in various contexts such as ordering in a café, clothes shopping, chores at home, city life, and vacation

travel. The course introduces additional grammatical structures and continues to emphasize the development of reading and listening skills using both adapted and authentic reading selections and audiovisual texts from francophone cultures. The textbook program offers listening practice via CD's and a DVD, as well as a variety of online resources.

FRENCH III **(NCAA approved course)**
5521 **Semester/1.0 credit** **Grades 9, 10, 11, 12**

French III reviews and expands vocabulary and grammatical structures and presents skills and strategies for more accurate communication. Students learn to communicate more details about themselves and their activities. The use of the past tense is emphasized. Cultural units on the regions of France and Québec are included in the course. The textbook program offers CD's, a video program, and online resources. Authentic audio and written resources from the Internet are also included to provide additional listening and reading practice and updated cultural information.

H FRENCH IV* **(NCAA approved course)**
5611* **Semester/1.0 credit** **Grades 9, 10, 11, 12**

In French IV Honors students greatly expand their knowledge of vocabulary and grammatical structures and tenses within the context of a challenging and enriched curriculum. The core textbook used in French IV is supplemented with readings and Internet-based listening and reading activities. The curriculum is enriched with group and individual cultural projects and oral presentations. During the year students improve their writing skills and enhance cultural understanding.

FRENCH IV **(NCAA approved course)**
5621 **Semester/1.0 credit** **Grades 9, 10, 11, 12**

In French IV students greatly expand their knowledge of vocabulary and grammatical structures and tenses. The textbook program offers CD's, a video program, and online resources. The course uses the stories in Petit Nicolas by Sempé and Goscinny to build reading skills. During the year students improve their writing skills and enhance cultural understanding.

H FRENCH V* **(NCAA approved course)**
5714* **Semester/1.0 credit** **Grades 10, 11, 12**

The French V Honors course helps students progress from Novice Learner to Intermediate Learner as defined in the Standards for Foreign Language Learning in the 21st century. The course utilizes core textbook, literary selections of increasing length, authentic texts on contemporary issues, and authentic audio texts from the Internet. Historical and contemporary aspects of French culture are presented. Students have frequent opportunities for individual and group projects. During the year students improve their writing skills and enhance cultural understanding.

AP FRENCH LANGUAGE AND CULTURE* **(NCAA approved course)**
5715* **Semester/1.0 credit** **Grades 11, 12**

AP Language and Culture courses strive to promote fluency and accuracy in language use. Students are engaged in the exploration of culture in both contemporary and historical contexts by reading, listening, and responding to a variety of authentic texts from literature, magazines, news broadcasts, films, etc. The goal of the course is proficient written and spoken communication in the target language. All classes are conducted in French.

MNHS offers AP French Language as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

HEALTH AND PHYSICAL EDUCATION

Health and Physical Education are integral parts of the total educational process at Marple Newtown High School. Through selected experiences and activities, physical education contributes to the growth and development of all students in the physical, intellectual, social, and emotional dimensions.

Health Education provides instruction in the concept of wellness and offers students several opportunities to develop lifelong recognition of wellness through health literacy, critical thinking, and responsible decision-making. The health and physical education program of study prepares students to become contributing and productive members of our rapidly changing, democratic society.

Students are required to attain 2.5 CR in health and physical education to meet MNHS graduation requirements.

STANDARD SEQUENCE OF REQUIRED COURSES/CREDITS

GRADE 9	Health I	Introduction to Physical Education
GRADE 10	Health II or Lifeguarding	Elective
GRADE 11	N/A	Elective

HEALTH AND PHYSICAL EDUCATION ELECTIVE COURSES

Grades 10, 11, 12

- Cardio Training
- Circuit Training
- General Physical Education
- Lifeguarding/First Aid (9-12)
- Strength Training I
- Strength Training II
- Team Sports
- Yoga
- Yoga II

Grades 11, 12

- Advanced Physical Education
- PE Senior Leader

HEALTH AND PHYSICAL EDUCATION DEPARTMENT

INTRODUCTION TO PHYSICAL EDUCATION

0460 **Term/0.5 credit** **Grade 9**

The ninth grade Skill Instruction Program includes the teaching of fundamental skills used in team sports and individual sports activities. Students are drilled in the fundamental skills, rules, and basic strategies of these athletic activities. In addition, each student must participate in a required aquatics module included within this course. The aquatics requirement for graduation combines an assessed proficiency in aquatic skills along with a demonstration of safety awareness and behaviors near and in the water. The aquatics module is coeducational. The course is taught by a certified instructor.

HEALTH I

0461 **Term/0.5credit** **Grade 9**

The quality of a human's life is determined by the combination of personal choices, genetics, and the environment. The ninth grade Health Education course studies content in the areas of safety, nutrition, disease and disorders, personal health, growth and development, human interactions, and drugs and alcohol. Community resources provide current information and awareness on the topics of HIV/AIDS and sexual assault/harassment. Content is presented using a variety of strategies to provide students with information and skills as well as many opportunities for practical application of knowledge on a personal level.

HEALTH II

0561 **Term/0.5 credit** **Grades 10, 11, 12**

The quality of a human's life is determined by the combination of personal choices, genetics, and the environment. The tenth grade Health Education program studies content from an adult's perspective in the areas of safety, nutrition, disease and disorders, personal health, growth and development, human interactions, and drugs and alcohol. Community resources provide updated information and awareness on the topics of HIV/AIDS, sexual assault/harassment/violence, and sexual abstinence.

ADVANCED PHYSICAL EDUCATION

0672 **Term/0.5 credit** **Grades 11, 12**

This course is designed for advanced physical education students. This course provides an opportunity for students to perform in a variety of competitive sports. It is appropriate for students who are competitive in nature, interested in a more intense physical education course and team sports-oriented, including but not limited to: football, soccer, ultimate, basketball, hockey, handball, badminton, spikeball, volleyball, and tennis. Various other vigorous team activities may be supplemented depending on space availability.

YOGA II

0673 **Term/0.5 credit** **Grades 10, 11, 12**

Yoga II provides an opportunity for students to further their knowledge of yoga and breathing, improve their practice and explore a wide variety of poses and styles. This course provides greater physical challenge than Yoga I with more multi-level flow.

Prerequisite: Successful completion of Yoga I

GENERAL PHYSICAL EDUCATION

0674 Term/0.5 credit Grades 10, 11, 12

This course is designed to provide students the opportunity to learn and develop fundamental skills and strategies used in individual and partner-type activities. Engaging in these activities develops communication, teamwork, game strategy while promoting life-long fitness. Activities within this course include, but are not limited to, badminton, pickleball, tennis, table tennis, Spikeball, bocce, frisbee golf, KanJam, ladder golf, cornhole, and bowling. This course does not include team activities, such as soccer, volleyball, basketball, and speedball.

TEAM SPORTS

0675 Term/0.5 credit Grades 10, 11, 12

This course is designed to provide students opportunities to engage in team-based games. Engaging in these activities help students develop fundamental skills, gaming strategies, and teamwork. Activities within this course include, but are not limited to, volleyball, soccer, football, basketball, team handball, speedball, omnikinball, and tchoukball.

PHYSICAL EDUCATION SENIOR LEADER

0771 Term/ 0.5 credit Grade 12

This course is for seniors who plan on teaching or coaching in the future. The course will consist of assisting a P.E. teacher in his/her daily P.E. class. The students will learn how to set up for activities keeping safety in mind. The students will have the opportunity to co-teach activities and lessons throughout the semester. The course will occur congruently with Introduction to Phys Ed, Rec PE, Circuit Training, Aquatics, Lifeguarding, and/or General PE. This course needs teacher/administrative approval. Maximum of 1 student per teacher, per period.

STRENGTH TRAINING I

0870 Term/0.5 credit Grades 10, 11, 12

This course will consist of classroom and weight room instruction. The purpose of classroom instruction is to teach the fundamentals of nutrition, safety, planning, and design. The fitness center instruction will utilize free weights, selector machines, hammer machines, and cardiovascular equipment. 40% of the class time will be spent in the classroom and 60% will be spent in the Fitness Center.

STRENGTH TRAINING II

0871 Term/0.5 credit Grades 10, 11, 12

This course will consist of classroom and weight room instruction and is designed for the advanced strength training participant who has already taken Strength Training I. This high-intensity class will primarily involve strength training with free weights. This course will include periodic classroom instruction on the principles of program design and the implementation of a personal weight lifting program. 30% of the class time will be spent in the classroom and 70% will be spent in the Fitness Center.

Prerequisite: Successful completion of Strength Training I

LIFEGUARD/FIRST AID
0872 Term/0.5 credit Grades 9, 10, 11, 12
This course offers American Red Cross certification in the areas of First Aid, Cardiopulmonary Resuscitation for the Professional Rescuer, and Lifeguarding. Students receive theory and practical application of principles regarding safety and the prevention of accidents. In addition, students learn standard first aid skills, including CPR. The program also focuses on the knowledge and application of skills required by individuals to develop effective lifeguard systems around swimming pools. Students who choose this course must be able to swim to a depth of 12 feet to retrieve a 10-pound brick. Students must also be able to complete 20 lengths of the pool in less than 12 minutes. This course is for above-average swimmers. Students who successfully complete this course will receive certification for lifeguarding and First Aid (valid 2 years), and CPR for the Professional Rescuer (valid 2 years).

Lifeguard/First Aid may be taken in lieu of Health II or toward PE credit.

Note: Course cost for American Red Cross administrative fee is approximately $70.00.

CIRCUIT TRAINING
0874 Term /0.5 credit Grades 10, 11, 12
This course offers an introduction to lifetime, fitness club best practices. Each class will include stretching, cardio, and basic muscular strengthening. Weight training will utilize activities and machines typically found at local athletic clubs. This course will not include heavy free weight lifting (no squatting or heavy free weights). The class will instruct students how to work out in 60 minutes or less. The 60 minutes or less will give the student a total body work out, the way many people do when they go to local gyms. This class is primarily for students interested in healthy body fitness not power lifting for contact sports.

YOGA
0875 Term/ 0.5 credit Grades 10, 11, 12
This course will be rooted in the foundational principles of yoga for students who are new to yoga or anyone who wishes to learn the beginning principles. The course will build slowly and logically to introduce standing poses, forward extensions, twistings, back extensions, and inversions. The course will then move on to foundational principles that set the stage for a life-long endeavor in yoga. This includes a broad range of movements along with a developing awareness of the body, mind, and breath.

CARDIO TRAINING
0892 Term/0.5 credit Grades 10, 11, 12
This course will consist of cardiovascular and flexibility training for students. The skills of jogging and running will be developed during the outdoor days of class. During indoor classes, jogging, running, circuit training, and cardiovascular activities will also be developed. The gym, fitness center, track, fields, and classrooms will be utilized for training.

BUSINESS AND TECHNOLOGY EDUCATION

The Business and Technology program of study provides opportunities for student to enroll in a variety of electives. These offerings include courses in computer applications, family and consumer sciences, business, and technology applications. Emphasis is placed on hands-on, lab-based experiences, which give the student a sample of post-secondary settings.

Students are required to attain 1.0 CR in business and technology education to meet MNHS graduation requirements.

BUSINESS AND TECHNOLOGY EDUCATION ELECTIVE COURSES

Grades 9, 10, 11, 12

- Architectural Design and Construction
- Computer Applications
- Computer Systems & Network Fund I
- Computer Systems & Network Fund II
- Energy, Power, and Transportation
- Graphic Design I
- Graphic Design II
- Innovative Product Design
- Introduction to Business
- Intro to Software Development
- Intro to Electronics
- Marketing
- Video Production I
- Video Production II

Grades 10, 11, 12

- Accounting
- Culinary I
- Culinary II
- Game Development I
- Game Development II
- Instrument Design
- Introduction to Early Education
- Intro to Software Development
- Robotics

Grades 11, 12

- Culinary III

BUSINESS AND TECHNOLOGY EDUCATION DEPARTMENT

COMPUTER APPLICATIONS

6460 **Term/0.5 credit** **Grades 9, 10, 11, 12**

To gain an edge in today's highly competitive world, every student should be proficient in a variety of software applications and digital media. Students will learn to create products to communicate using a variety of digital media. An in-depth experience will be provided in the most widely used commercial software applications, such as Microsoft Office 365, Adobe Creative Suite Dreamweaver, HTML Google Suite of Applications and the integration from one application to another, in addition to practicing safe, legal, and responsible use of information and technology. Students will enhance computer skills needed to support personal productivity, group collaboration, and self-directed learning through project-based assignments.

INTRODUCTION TO SOFTWARE DEVELOPMENT

6461 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course will introduce programming techniques and fundamentals by using languages like HTML (Hypertext Markup Language) and Java script. Students will be challenged to develop solutions to real-world scenarios by incorporating computer programming and coding skills, project-management and testing. Skills learned in this course can be applied to careers in mobile app development and website design.

COMPUTER SYSTEMS AND NETWORK FUNDAMENTALS I

6462 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Technology has become a core component of any successful business or organization. Within technology there are many areas of support and maintenance ranging from computer hardware and physical and wireless networking to information security and software development. This course will provide students with an introduction to the core technical skills required to build a sustainable technology career.

COMPUTER SYSTEMS AND NETWORK FUNDAMENTALS II

6463 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Prerequisite: Successful completion of Computer Systems and Network Fundamentals I Students in this course will study networks and the computer devices that comprise a typical network. Students will learn to build, maintain, and support computer network systems which form the foundation for a beginning a career in Information Technology.

GAME DEVELOPMENT I

6560 **Term/0.5 credit** **Grades 10, 11, 12**

Electronic Game Development provides experiences for students to program a simulation or game application. This course emphasizes software engineering: requirements, design teams, testing and maintenance, documentation, programming and coding, and software design tools.

Prerequisite: Successful completion of Introduction to Software Development

GAME DEVELOPMENT II

6561 **Term/0.5 credit** **Grades 10, 11, 12**

In Game Development I students had the opportunity review, play, design, and create basic video games. Students spent time working on understanding the foundations of video games. They had opportunities to utilize Game Factory and Pivot Animator to create simplistic games. In Game Development II, students will have a chance to build on the foundations and move towards the composition of games. This would utilize current programs such as Game Factory but go more in depth with more complex software. This software would include Multimedia Fusion 2, 001 Game Creator, and Blender.

Prerequisite: Successful completion of Game Development I

STEM INNOVATION & INVENTION – ROBOTICS

6562 **Term/0.5 credit** **Grades 10, 11, 12**

This STEM (Science, Technology, Engineering, and Math) course will focus on introducing and exploring engineering with robots. Students will build and design robots to solve real-world problems and tasks while learning and applying engineering and physics concepts, formulas, and practices. The course is recommended for those students who enjoy hands-on design challenges and problem solving and/or who are considering a degree in engineering, design, robotics, or a related field of study.

INSTRUMENT DESIGN

6563 **Term/0.5 credit** **Grades 10, 11, 12**

Students will design and build a fully functional acoustic ukulele. The focus areas of the STEM Guitar Institutes include electric guitar, CNC guitar fabrication, and acoustic guitar. Across the United States, there are increasing concerns from businesses about the supply of science, technology, engineering, and mathematics trained workers. Our educational system is in the process of revitalizing the “hands-on” learning techniques to enhance the participation and success of students. This project meets the needs of applied learning with the flexibility of being modular in the classroom.

Lab Fee: $50

INTRODUCTION TO EARLY EDUCATION

6771 **Semester/1.0 credit** **Grades 10, 11, 12**

Through discussion, observations, and working directly with the onsite MNSD preschool program, students will see first-hand how the young child develops physically, intellectually, emotionally, and socially. Brain development, literacy skills, nutrition, safety, special needs, and effective parenting skills are among the topics that will be studied. In addition to preparing students for careers related to children, this course will assist students in becoming more informed and effective parents in the future.

emotionally, and socially. In addition to preparing students for careers related to children, this course will assist students in becoming more informed and effective parents in the future.

CULINARY ARTS I

6780	**Term/0.5 credit**	**Grades 10, 11, 12**

In this course, students will study nutrition and wellness according to the USDA's Dietary Guidelines by examining their personal eating habits. Students will have first-hand experiences preparing a variety of foods essential for healthy eating and living. Food safety, sanitation, and basic food chemistry will be discussed. Proper use of basic culinary equipment will be practiced. Related careers in the hospitality industry will be presented. Students with food allergies are cautioned when electing to participate in this course. Foods cannot be quarantined and cross contamination and/or exposure to food allergens is possible. Note: The USDA Dietary Guidelines includes all food groups. Enrolled students are expected to participate fully in preparing and eating foods.

Lab Fee: $30.00

CULINARY ARTS II

6781	**Term/0.5 credit**	**Grades 10, 11, 12**

This course, via the study of grains, a vital staple of healthy eating worldwide, builds on the skills acquired in Culinary Arts I. Students will understand interactions of ingredients and practice baking skills as they cook main dishes, cereals, desserts, and breads. At the same time, consumer issues, such as FDA enforced Food Labels, UPC codes, additives, organic foods, product placement, bait and switch tactics, and generic versus national food labels will be identified and discussed. Students with food allergies are cautioned when electing to participate in this course. Foods cannot be quarantined and cross contamination and/or exposure to food allergens is possible. Note: The USDA Dietary Guidelines includes all food groups. Enrolled students are expected to participate fully in preparing and eating foods.

Lab Fee: $30.00

Prerequisite: Successful completion of Culinary Arts I

CULINARY ARTS III

6782	**Term/0.5 credit**	**Grades 11, 12**

This advanced course is best suited for serious "foodies" and students considering a career in culinary arts. Students will explore how culture, geography, and history impact food habits and cuisines around the world and create the fusion popular in today's recipes. This fast-paced course will examine the culinary brigade, careers in hospitality, the mother sauces, wet and dry cooking principles, restaurant techniques, equipment, and ingredients in our state- of- the- industry kitchen where commercial tools and equipment will be employed. Enrollment is limited to juniors and seniors. Students with food allergies are cautioned when electing to participate in this course. Foods cannot be quarantined and cross contamination and/or exposure to food allergens is possible. Note: The USDA Dietary Guidelines includes all food groups. Enrolled students are expected to participate fully in preparing and eating foods.

Lab Fee: $30.00

Prerequisite: Successful completion of Culinary Arts I and II

INNOVATIVE PRODUCT DESIGN

6862 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course explores the relationship between the planning, problem solving, documentation, and the manufacturing that goes into creating a new product. In addition, students will use design thinking while assuming the role of designers for various companies. They will design and construct products with specific criteria related to product function, aesthetics, and sustainability. Students will conduct research and create a business plan while exploring different concepts. The latter will require focus on marketing, sustainability, and overall cost in order to earn a profit.

Lab Fee: $25

INTRODUCTION TO ELECTRONICS

6863 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This is an introductory course in the fundamentals of DC circuitry. This course is delivered to the learner using practical hands-on activities, which are complemented by concise textbook learning. Topics include electrical theory, Ohm's law, series circuits, parallel circuits, use of soldering equipment, micro-controllers, product design, troubleshooting, and electronic engineering. Power supplies and multimeters are used for circuit testing and laboratory experiments throughout the course. This course applies Physics concepts by incorporating theoretical and applied physics throughout each unit.

ENERGY, POWER, TRANSPORTATION

6864 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This project-based learning course explores land, air, and sea-based transportation modes. Students will use the engineering design process as well as a various machines and tools, including laser engravers, 3-D printers, and saws. In addition, this course introduces students to basic principles behind mechanical, electrical, and chemical engineering through immersive lab experiences and project collaboration.

VIDEO PRODUCTION I

6865 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course is designed to plan and produce digital media using cameras and video editing. Students will learn how to properly use a camera to film different types of

videos. Students will also use Adobe Premiere to edit videos. The types of videos students will be producing include stop motion animation, news stories, commercials, chase scenes, and more. Focus areas include story writing, scripting, video editing, and studio production.

VIDEO PRODUCTION II

6866 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students will build on their knowledge and skills learned in Video Production I. The activities will include more student-directed projects and allow for more choice in the projects they complete. This class will help build skills in writing, filming, and editing techniques. A major focus will be script writing to produce movie trailers and short films. Adobe After Effects will be used to enhance projects using special effects and animation.

Prerequisite: Successful completion of Video Production I

GRAPHIC DESIGN I
6870 Term/0.5 credit Grades 9, 10, 11, 12
Graphic Design I introduces students to the fundamentals needed to be able to visually communicate accurate information and rich emotion through design. This course will provide the skills needed to effectively operate Adobe Photoshop, Illustrator, and InDesign. Projects will include photo retouching, photograph restoration, logo creation, restaurant menu design, and more. Each student's creativity will be utilized as students progress through a range of assigned projects.

GRAPHIC DESIGN II
6871 Term/0.5 credit Grades 9, 10, 11, 12
Graphic Design II is a continuation of Graphic Design I, which concentrates on different areas of the printing industry. The software design skills obtained from Graphic Design I will be utilized in the creation of vinyl decal and sign making, professional grade heat transfers, screen printing, and more. This course is designed to build student interest in the production side of graphic communication and to improve the student's knowledge in graphic design to better make a possible career choice in this field.

Prerequisite: Successful completion of Graphic Design I

ARCHITECTURAL DESIGN AND CONSTRUCTION
6874 Term/0.5 credit Grades 9, 10, 11, 12
Students will design, plan, and construct an architectural design. Focus is on design and fabrication of residential construction. Each student will be required to hand draw a floor plan, digitally draw the floor plan, and create a digital rendering of the elevation using Chief Architect. Students will bring that floor plan to life by creating a scale model out of balsa wood using CorelDraw and the Laser Engraver to create pieces of the design.

Prerequisite: Algebra I

ACCOUNTING
6972 Term/0.5 credit Grades 10, 11, 12
This course is a must for any student who has interest in a business career. As future employees, managers, and entrepreneurs, students who understand basic accounting principles will be better able to manage their personal and company's financial resources. Accounting is designed for students who anticipate continued study of accounting or business at the post-secondary level.

The following core concepts will be covered in this course: the Accounting Cycle, Financial Statement Analysis, and the Forms of Business Ownership. Accounting objectives also include an understanding of the industry, career options, accounting as a college major, and general business success skills. An understanding of accounting will be invaluable, no matter what job you hold or in what organization you work.

MARKETING

6973 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Do you love sports? Do you want to work for the Philadelphia Eagles, the Union, or the Phillies? Not professional athlete material? Well you don't have to be. You can still work for these organizations in the administrative offices. Marketing is your ticket to get in the door. This course will use a virtual business simulation software, the students handle promotion, ticket pricing, stadium operations and staffing, sponsors, concessions, concert booking and promotion, and more. This course will take you on a step-by-step journey through the exciting world of sports and entertainment marketing. You will learn about the key functions of marketing and how those functions are applied to the sports industry. This marketing class will provide students the opportunity to "work" in the exciting sports and entertainment world. The online simulation teaches students the hard business decisions that go into the sports and entertainment events the students enjoy in real life. Marketing is one of the largest and most exciting career areas in business and there are many career opportunities in this field.

INTRODUCTION TO BUSINESS

6974 **Term/0.5 credit** **Grades 9, 10, 11, 12**

As the nature of work continues to change, business education becomes increasingly important to all students. This course provides students with the opportunity to develop the skills and techniques necessary for success in the local and global workplace. Students will be introduced to the basics of finance, the decision-making techniques to be wise consumers, the economic principles of an increasingly international marketplace, and the processes by which businesses operate. This course provides a solid introduction to other business courses, such as Accounting and Marketing.

VISUAL AND PERFORMING ART

Courses offered within the visual and performing arts program of study provides students opportunities to explore a wide range of musical and artistic experiences. The arts promote and develop creative and divergent thinking using imagination and innovation.

Students are required to attain a minimum of 1.0 CR in visual and performing art to meet MNHS graduation requirements.

VISUAL AND PERFORMING ART ELECTIVE COURSES

Grades 9, 10, 11, 12

- Band – Brass
- Band – Percussion
- Band – Woodwind
- Ceramics I
- Ceramics II
- Choir
- Decorative and Functional Arts
- Digital Imaging I
- Digital Imaging II
- Drawing and Painting
- Guitar I
- Guitar II
- Illustration and Cartooning I
- Music Technology I-III
- Music Theory
- Orchestra
- Photography I
- Photography II
- Photography Then & Now
- Piano I
- Piano II
- Studio Art I
- Three-Dimensional Design
- Visual Art

Grades 10, 11, 12

- AP Music Theory
- Illustration and Cartooning II

Grades 11, 12

- AP Studio Art (Drawing, 2D, 3D, Photography, Digital)

VISUAL AND PERFORMING ART DEPARTMENT

PHOTOGRAPHY THEN AND NOW

6889 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Ever wish you could have the best of both worlds? This class will allow you to do that. This course will let you experience the creativity and techniques of both traditional black and white darkroom photography and digital photography. Students will be able to experience a handmade camera from the 19th century, film from the 20th century, and 21st century digital photography.

Lab fee $35.00

PHOTOGRAPHY I

6890 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This is a basic course in black and white film processing and printing that introduces students to the magic of photography. Emphasis will be placed on the photographic image as a means of expression and the use of the camera to explore and discover the visual world. Students will shoot, process, and print their own pictures made with hand built cameras as well as film taken with 35mm cameras. Students will also be allowed to shoot digital photos, convert them into negatives, and print them in the darkroom. Students will benefit from having access to a 35mm or digital camera with a manual setting. School cameras are available for those who do not have access to one. No experience is necessary.

Lab Fee $50.00

PHOTOGRAPHY II

6891 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course is a continuation of Photography I. This course is designed to give the student continued study of black and white photographic processes and the exploration of camera techniques. Students will also be allowed to shoot digital photos, convert them into negatives, and print them in the darkroom. Emphasis will be placed on the printed image as well as solarization, hand coloring, and toning.

Lab Fee $50.00

Prerequisite: Successful completion of Photography I

PHOTOGRAPHY III

6892 **Term/0.5 credit** **Grades 10, 11, 12**

This course is designed to give the student continued study of black and white photographic processes, and the exploration of more advanced camera, non-silver, and creative darkroom techniques. Students will be introduced to digital photography and image manipulation. The student will be able to use acquired photographic knowledge and skills as a tool for more creative expression.

Lab Fee $50.00

Prerequisite: Successful completion of Photography II

PHOTOGRAPHY IV

6893 **Term/0.5 credit** **Grades 11, 12**

This advanced course is designed to provide students who are seriously interested in a practical experience in photography. Students are required to demonstrate a working knowledge of a variety of techniques and materials relative to their study of photography. This course is designed to allow students to develop their own personal style.

Lab Fee $50.00

DIGITAL IMAGING I

6894 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course will let students experience the magic of photography without stepping into a traditional darkroom. It is designed to introduce students to digital image manipulation, the fundamentals of Adobe Photoshop and the digital darkroom. Students will use their creativity to produce images that will be inputted into the computer via digital cameras, film, and picture scanning. Students will learn to manipulate and edit images, understand the language of the digital darkroom, and create artistic imagery.

Lab Fee $30.00

DIGITAL IMAGING II

6895 **Term/0.5 credit** **Grades 9, 10, 11, 12**

This course will enhance students understanding of photography and the digital arts. Students will expand their knowledge of Photoshop and digital techniques. Students will explore visual communication through artistic expression.

Lab Fee $30.00

Prerequisite: Successful completion of Digital Imaging I

DIGITAL IMAGING III

6896 **Term/0.5 credit** **Grades 10, 11, 12**

This course is designed to help students master advanced imagery through print manipulation. Students will expand their knowledge of Photoshop by exploring more sophisticated composite techniques.

Lab Fee $25.00

Prerequisite: Successful completion of Digital Imaging I and II

DIGITAL IMAGING IV

6897 **Term/0.5 credit** **Grades 11, 12**

This advanced course is designed to provide students who are seriously interested in expanding their knowledge of Photoshop. Students are required to demonstrate a working knowledge of a variety of tools and techniques.

Lab fee $20.00

Prerequisite: Successful completion of Digital Imaging III

PIANO I

7560 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students will be introduced to elements of music and fundamental concepts of performance techniques on piano. Through group instruction and demonstration, students will learn the basic skills necessary for playing songs with this instrument. Students will develop an appreciation for various styles of music and gain a deeper understanding of the value of music and its role with social development. Technology will be incorporated to better enhance the student's understanding of the performing arts.

PIANO II

7561 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students will further their skills learning a variety of piano literature. Students will learn to perform on electronic and acoustic pianos. Through the use of technology, students will gain a deeper understanding of piano composition and will create and perform original pieces.

Prerequisite: Piano I or recommendation from the instructor

GUITAR I

7562 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Students will be introduced to elements of music and fundamental concepts of performance techniques on guitar. Through group instruction and demonstration, students will learn the basic skills necessary for playing songs with this instrument. Students will develop an appreciation for various styles of music and gain a deeper understanding of the value of music and its role with social development. Technology will be incorporated to better enhance the student's understanding of the performing arts.

GUITAR II

7563 **Term/0.5 credit** **Grades 9, 10, 11, 12**

Continuing the foundation of Guitar I, students will learn new techniques and form for the guitar. Through this course, students will gain a deeper understanding of guitar styles, notation, and composition. Students will have the opportunity to play solo and group repertoire using folk, reggae, and pop styles of music.

Prerequisite: Guitar I or recommendation from the instructor

AP MUSIC THEORY*

7810* **Semester/1.0 credit** **Grades 10, 11, 12**

AP Music Theory will develop the student's ability to recognize, understand, and describe the basic materials and processes of music that are heard or presented in a score. Fundamental aural, analytical, and compositional skills will be thoroughly examined using both listening and written exercises. The course will also give students the opportunity to explore various composition techniques including the harmonization of a melody by selecting appropriate chords, composing a musical bass line to provide two-voice counterpoint, and the realization of figured-bass notation.

Prerequisite: Teacher recommendation

MNHS offers AP Music Theory as a dual credit option in its partnership with Immaculata University. The weighted course provides 1.0 MNHS credit and 3.0 Immaculata University credit hours.

Students who register for the course as a dual credit option are responsible for meeting requirements set forth by Immaculata University.

Students are responsible for understanding credit transfer policies at prospective colleges.

Fee: Students are responsible for all course tuition, fees, and materials, such as textbooks. Please consult with a member of the CCAC to obtain more information.

MUSIC THEORY
7870 — Term/0.5 credit — Grades 9, 10, 11, 12
This course is designed for any student who plays an instrument or sings and wishes to enhance their musical skills. In Music Theory I, students will learn the art of sight singing, musical dictation, interval identification (aural and written), and basic chord structure. Students must first demonstrate the ability to read and understand basic music notation. Students taking Music Theory I will be able to sight sing passages with basic intervals, identify, understand, and appreciate basic chord structures, and be prepared to take AP Theory.

BAND
7880 (BR), 7881(PE), 7882(WW) — Three Terms/1.5 credits — Grades 9, 10, 11, 12
Band is a three-term course. It will be separated into three distinct sections: woodwind, brass, and percussion. Students in the band will learn music theory and perform together as an ensemble. Students will be responsible for all scheduled after school and evening dress rehearsals and performances throughout the year. Performances include school concerts, local and regional parades, and scheduled community events. The band performs standard band music, as well as contemporary and popular music. Band members are eligible to audition for district, regional, and state band after their freshman year. Please visit www.tigermusic.org for more information regarding policies, requirements, and grading procedures.

CHOIR
7883 — Three Terms/1.5 credits — Grades 9, 10, 11, 12
Choir meets for three terms with the purpose of developing a good choral sound. The repertoire consists of outstanding compositions of the Baroque, Classical, Romantic, and Contemporary periods, as well as pop selections. Members are eligible to audition for district, regional, and state choir after their freshman year. In addition to all scheduled classes, members of the choir are responsible for all scheduled before and after school dress rehearsals and performances throughout the year. Please visit www.tigermusic.org for more information regarding policies, requirements, and grading procedures.

ORCHESTRA
7885 — Three Terms/1.5 credits — Grades 9, 10, 11, 12
Orchestra is a three-term course. The orchestra consists of string musicians. All musicians interested may participate in the orchestra, regardless of ability level. The orchestra performs at

various concerts throughout the year and gives members the opportunity to excel at their instrument(s) as well as makes them eligible to audition for district, regional, and state orchestra after their freshman year. The music performed includes standard orchestral literature, and branches into genres such as Broadway show tunes, movie soundtracks, and contemporary pieces. Students will be responsible for scheduled after school rehearsals and performances throughout the year. Please visit www.tigermusic.org for more information regarding policies, requirements, and grading procedures.

MUSIC TECHNOLOGY I

7892 Term/0.5 credit Grades 9, 10, 11, 12

An introduction to music technology software and hardware, focused on basic acoustics, digital audio, MIDI, and MIDI sequencing and notation software. Lab activities will place an emphasis on the operation and components of the typical MIDI and digital audio lab (hardware and software). Students will complete independent projects in areas such as digital audio, music notation, and MIDI sequencing. In addition to the hands-on curriculum, students will learn about the history of analog and digital synthesis and the evolution of the technology, focusing on the relationships between past and present technologies.

MUSIC TECHNOLOGY II

7893 Term/0.5 credit Grades 10, 11, 12

A continuation of Music Technology I, students will further explore the elements of music production and fundamentals concepts of studio and live sound engineering. Through group instruction and demonstration, students will learn the skills necessary to choose and operate equipment, both hardware and software, for any given situation. Topics include: Song Composition, Podcast Development, Loop and Beat Creation, Music Business, Recording Equipment, Artist Development and Promotion, Live Sound and Music Career Options. Coursework includes journal work, hands-on training, quizzes, and exams (may be written or application work).

Prerequisite: Music Technology I or permission from instructor

MUSIC TECHNOLOGY III

7894 Term/0.5 credit Grades 10, 11, 12

A continuation of studies begun in Music Technology I & II, this course focuses on advanced concepts in music technology and their application to multimedia. Students learn how to score for film and synchronize multimedia with advanced sound design, sampling, and production techniques. This course prepares students for the techniques and practices used in a professional recording studio. It includes learning various studio hardware, signal processing, mixing board console navigation, signal flow, microphone designs and how they are used for recording sound, and where they are typically placed. Students learn how to run a live recording session and the best way to record, edit and master that session. In addition, students will learn about entrepreneurship in the music industry: marketing music projects, contracts and licensing, royalty reporting and other technological competencies necessary for a successful entertainment industry business.

Prerequisite: Music Technology I and II or teacher recommendation

AP STUDIO ART DRAWING*
7910* **Semester/1.0 credit** **Grades 11, 12**
This course has been developed to challenge students who have successfully completed a minimum of one semester of studio art or photography/digital imaging courses and expressed an interest in completing the AP Portfolio. Students will be challenged to develop their own personal work through mastery of concept, composition, and execution of their personal ideas and themes. Students must follow the AP Studio Art syllabus for either Drawing or Design and submit their portfolio to the College Board for review.

Prerequisite: Earned a B+ or above in Studio Art I and successful portfolio review by the student's art instructor

AP STUDIO ART 3-D DESIGN*
7911* **Semester/1.0 credit** **Grades 11, 12**
This course has been developed to challenge students who have successfully completed a minimum of one semester of studio art or ceramics I & II and expressed an interest in completing the AP 3-D Portfolio. Students will be challenged to develop their own personal body of work through mastery of materials, concept, and execution of their personal ideas and themes. Students must follow the AP Studio Art syllabus for 3-D Design and submit their portfolio to the College Board for review upon completion of this course.

Prerequisite: Earn a B+ or greater in Studio Art I and successful portfolio review by the student's art instructor

AP STUDIO ART PHOTOGRAPHY*
7912* **Semester/1.0 credit** **Grades 11, 12**
This course has been developed to challenge students who have successfully completed a minimum of one semester of studio art or photography/digital imaging courses and expressed an interest in completing the AP Portfolio. Students will be challenged to develop their own personal work through mastery of concept, composition, and execution of their personal ideas and themes. Students must follow the AP Studio Art syllabus for either Drawing or Design and submit their portfolio to the College Board for review.

Prerequisite: Successful completion of Photo I & II, OR Digital Imaging I & II AND successful portfolio review by the student's art instructor

AP STUDIO ART DIGITAL*
7913* **Semester/1.0 credit** **Grades 11, 12**
This course has been developed to challenge students who have successfully completed a minimum of one semester of studio art or photography/digital imaging courses and expressed an interest in completing the AP Portfolio. Students will be challenged to develop their own personal work through mastery of concept, composition, and execution of their personal ideas and themes. Students must follow the AP Studio Art syllabus for either Drawing or Design and submit their portfolio to the College Board for review.

Prerequisite: Successful completion of Photo I & II, OR Digital Imaging I & II AND successful portfolio review by the student's art instructor

AP 2-DIMENSIONAL ART AND DESIGN*
7915* **Semester/1.0 credit** **Grade 12**
AP 2-D Art and Design is an introductory college-level two-dimensional design course. Students refine and apply skills and ideas they develop throughout the course to produce two-dimensional art and design.

DRAWING AND PAINTING
7970 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This course introduces the student to the disciplines of painting and drawing. Students will study the elements and principles of art through the concentrated survey of these two disciplines. The course includes a study of famous artists and their work, and will explore various techniques included in painting and drawing to enhance students' existing artistic abilities.

VISUAL ART
7971 **Term/0.5 credit** **Grades 9, 10, 11, 12**
The Visual Art course is designed to provide the student with a working knowledge of a variety of techniques, materials, tools, and concepts in the major fields of Art. In addition to art-making skills, students will explore color theory, design concepts, and art elements and principles. Some of the mediums students will explore include: drawing, painting, printmaking, sculpture, book making, and more.

DECORATIVE AND FUNCTIONAL ART
7972 **Term/0.5credit** **Grades 9, 10, 11, 12**
Students will work with a variety of materials to create both decorative & functional art pieces. This course is geared for students who would like to explore and create a variety of crafts using techniques such as: tie-dye, stained glass mosaics, jewelry making, ceramic masks, wearable art, pottery, paper mache, and more.

THREE-DIMENSIONAL DESIGN
7973 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This class will learn about the history and techniques involved in creating various three-dimensional works of art. Students will work in various art media such as clay, plaster, paper mache, and paper to create several three-dimensional pieces. Students will work on individual projects as well as large-scale group projects.

ILLUSTRATION AND CARTOONING I
7975 **Term/0.5 credit** **Grades 9, 10, 11, 12**
This class will study the fundamentals of drawing and visual "story telling." Students will learn how illustrations and cartoons are prepared and the techniques necessary to produce successful illustrations. The students will learn how to visually develop a story with featured characters and complete illustrations needed for school publications and their art portfolio.

ILLUSTRATION AND CARTOONING II

7976 **Term/0.5 credit** **Grades 10, 11, 12**

In this course, students will further their understanding of illustration by using their artistic skills to produce a work of sequential art. Sequential art uses carefully designed images, arranged in sequence, for graphic storytelling. Utilizing several activities and techniques designed to improve their artistic skills, as well as their understanding of visual storytelling; students will plan, write, design, and paint a graphic story of their own creation.

Prerequisite: Successful completion of Illustration and Cartooning I and successful portfolio review by the student's art instructor

UNIFIED DRAWING AND PAINTING

7977 **Term/0.5 credit** **Grades 10, 11, 12**

This inclusive course introduces the student to the disciplines of painting and drawing using a collaborative approach to artistry. Students will study the elements and principles of art through the concentrated survey of these two disciplines. The course includes a variety of projects created using a fully integrated, team-based approach.

STUDIO ART I

7980 **Semester/1.0 credit** **Grades 9, 10, 11, 12**

This is a project-centered course for students who are interested in art or wish to develop a portfolio for college. This course will present students with a series of projects through which they will achieve a greater understanding of various art concepts, techniques, and media. Students will work on drawing, painting, sculpture, ceramics, and printmaking.

Students will be required to purchase a personal sketchbook and individual supplies

Prerequisite: Teacher recommendation required

STUDIO ART II

7981 **Semester/1.0 credit** **Grades 10, 11, 12**

This course is the next step for Studio Art I students. The coursework is geared to further develop students' artistic skills and to continue to build a portfolio of artwork for admission into an art school or college. Class projects will involve a variety of art media including, but not limited to: drawing, pen & ink, painting, printmaking, watercolor, and sculpture. Students will be required to keep a sketchbook for home assignments.

Prerequisite: Successful completion of Studio Art I

STUDIO ART III

7982 **Semester/1.0 credit** **Grades 11, 12**

This course is the next step for Studio Art II students. The coursework is geared to further refine students' artistic skills and to prepare them for AP Studio Art. Studio Art III fosters higher order thinking, creative problem solving, cooperative learning, and self-discipline. Class projects will involve a variety of art media including, but not limited to: drawing, pen & ink, painting, printmaking, watercolor, ceramics, and sculpture. Students will be required to keep a sketchbook for home assignments.

Prerequisite: Successful Completion of Studio Art II

CERAMICS I

7991 Term/0.5 credit Grades 9, 10, 11, 12

This course will introduce the student to the world of ceramics. Students will work in clay and learn the various hand-building techniques used in ceramic production. The students in this class will produce a wide variety of both decorative and functional pieces of ceramic art.

Lab fee $30.00

CERAMICS II

7992 Term/0.5 credit Grades 9, 10, 11, 12

The Ceramics II course is the next step for any student that has successfully completed the Ceramics I course. The focus of this course is for students to continue to develop their knowledge and ability to conceptualize, design, and create a variety of projects in clay. This course will build upon the basic knowledge and understanding of hand building and pottery wheel techniques that were taught in the Ceramics I course. Students will also have the opportunity to learn how to use the pottery wheels to create vessels. Students will produce a variety of both decorative and functional pieces of Ceramic Art.

Lab fee $30.00

Prerequisite: Successful completion of Ceramics I

SPECIAL PROGRAMS

CAREER PATHWAYS

9599 Term/0.5 credit Grade 10

Pathways is a graduation requirement for all sophomores. This course will enhance college and career readiness skills by assisting our tenth-grade students with investigating all post-secondary options such as, but not limited to: 2-or 4-year college, career/technical institute, military service, employment, apprenticeship, or service. Students will become familiar with career pathways and the use of a comprehensive college and career readiness solution system. The central pillars of career awareness and preparation, acquisition, retention and advancement, and entrepreneurship will be explored through topics such as, but not limited to: career research, self-evaluation and reflection, resume building, goal setting, time management, financial literacy, conflict resolution, critical thinking, social responsibility, effective communication and collaboration. The Career Pathways course will culminate with each student producing an individual career plan and career portfolio for use with their post-secondary transition.

JUNIOR INITIATIVE

9600 Term/0.5 credit Grade 11

Business is the foundation of the economies of both the United States and the world. The theme of the Junior Initiative, "The Real World: How Business Works," will introduce students to the real world of work through a project-based approach that will provide students the opportunity to make choices about what types of businesses and careers to explore. This approach will

enable students to better understand the real world of work and may help inform their decisions about future career paths.

This is a required course for all juniors and occurs during the fall of their junior year.

SENIOR PROJECT

9700 Semester/1.0 credit Grade 12

The purpose of the Senior Project is to provide the student with a practical learning situation and an invaluable opportunity to utilize the knowledge and skills acquired over the course of the education process in a "real world" application. The project relates to life outside the classroom in a genuine way and is a direct, practical application of the student's abilities. It is an individual project in which the student chooses, plans, develops, and directs the project's success by piloting the project and taking charge of the educational experience.

This is a required course for all seniors and occurs during the spring of their senior year.

Successful completion of Senior Project is necessary to fulfill graduation requirements.

WORK EXPERIENCE

9760 Semester/0 credit Grade 12

Work experience offers the student an opportunity to enjoy a community work experience with professional supervision, observation, and guidance. The course extends the classroom into the community and focuses on "learning while doing." Work experience provides an opportunity for students to meet occupational demands through organized work experiences and get an advanced look at the "real working world."

Students are required to spend a minimum of 10 hours per week in their work experience setting. Students must be in good academic standing and have the appropriate number of credits to be on track for graduation to participate.

Students and their families are responsible for securing a work experience placement.

Students are responsible for securing transportation and related expenses.

MNHS complies with state and federal laws regarding the reporting of income by students and their employers.

Prerequisite: CCAC counselor transcript review and prior administrative approval

SERVICE LEARNING
9761 **Term/0.5 credit** **Grade 12**
This course is designed to offer students the opportunity to provide service in our high school community. This course is embedded as part of an existing course of study offered at MNHS. Through participation in Service Learning, our students will be involved in a hands-on experience through one of our departments throughout the building. Some examples include lifeguarding, culinary arts prep, and a variety of assistant opportunities. Students interested in this course should speak with their counselor.

TECHNICAL PROGRAM
9880 **Year/3.0 – 3.5 credits** **Grades 10, 11, 12**
The Technical School Program is offered to tenth, eleventh, and twelfth grade students at one of two Intermediate Unit-run Technical Schools: Aston or Folcroft. The training available at these schools is extensive and demanding and provides a graduate with an excellent background for technical jobs, 2-4 year technical colleges, or 4-year colleges.

Students interested in this program should see their CCAC counselor during the course selection process to apply for the following school year.

STUDY ABROAD

Students who intend to study abroad prior to graduation must seek administrative approval before enrolling in any program. Marple Newtown High School reserves the right to determine credit status and grading policy in advance for any course of study taken abroad.

*Must be approved by CCAC Counselor and Administration.

MARPLE NEWTOWN HIGH SCHOOL ELECTIVE COURSES 23-24

An online version of this document is under the Academic ➡ Curriculum tab on the MNHS webpage

	ENGLISH		
1870	Poetry	0.5	9-12
1871	Theater As Living Art	0.5	9-12
1872	Cinema Dev	0.5	9-12
1873	Public Speaking	0.5	9-12
1874	Journalism	0.5	9-12
1875	Creative Writing	0.5	9.12
1876	Greek Literature	0.5	9-12
1877	Horror Literature	0.5	9-12
1878	Women's Literature	0.5	9-12

	SOCIAL STUDIES		
2810	AP Psychology	1.0	11-12
2870	Sociology	0.5	10-12
2871	Psychology	0.5	10-12
2872	America's Civil War	0.5	9-12
2874	International Relations	0.5	9-12
2875	Civil Rights Movement	0.5	9-12
2878	Leadership & Character	0.5	9-12
2880	WWI & WWII	0.5	9-12
2881	Vietnam & War on Terror	0.5	9-12

	MATHEMATICS		
3710	Honors Precalculus	1.0	10-12
3711	Honors Discrete Math	1.0	10-12
3712	AP Statistics	1.0	10-12
3715	AP Comp Sci A	1.0	10-12
3717	AP Comp Sci Principles	1.0	9-12
3720	Precalculus	1.0	10-12
3721	Trigonometry	0.5	10-12
3722	Intro to Statistics	0.5	10-12
3723	H Statistics	1.0	10-12
3724	Math for Life & Work	0.5	9-12
3725	Personal Finance (ALG I REQ)	0.5	9-12
3726	Logic	0.5	10-12

	SCIENCE		
4515	AP Biology	1.5	11-12
4615	AP Chemistry	1.5	12
4616	AP Environmental Science	1.0	12
4715	AP Physics	1.0	12
4870	Wildlife Conservation	0.5	10-12
4871	Environmental Science	0.5	11-12
4872	Forensic Science	0.5	11-12
4874	Anatomy and Physiology	1.0	11-12

	HEALTH & PHYSICAL EDU		
0672	Advanced Physical Education	0.5	11-12
0673	Yoga II	0.5	10-12
0674	General Physical Education	0.5	10-12
0675	Team Sports	0.5	10-12
0771	PE Senior Leader	0.5	12
0870	Strength Training I	0.5	10-12
0871	Strength Training II	0.5	10-12
0872	Life Guarding/First Aid	0.5	10-12
0874	Circuit Training	0.5	10-12
0875	Yoga I	0.5	10-12
0892	Cardio Training	0.5	10-12

	BUSINESS & TECHNOLOGY		
3716	Intro to Java Programming	0.5	9-12
3770	Intro to Python Programming	0.5	9-12
6460	Computer Applications	0.5	9-12
6461	Intro to Software Dev	0.5	9-12
6462	Comp Sys & Net I	0.5	9-12
6463	Comp Sys & Net II	0.5	9-12
6560	Game Development I	0.5	10-12
6561	Game Development II	0.5	10-12
6562	Robotics	0.5	10-12
6563	Instrument Design	0.5	10-12
6771	Introduction to Early Education	1.0	10-12
6780	Culinary Arts I	0.5	10-12
6781	Culinary Arts II	0.5	10-12
6783	Culinary Arts III	0.5	11-12
6862	Innovative Product Design	0.5	9-12
6863	Intro to Electronics	0.5	9-12
6864	Energy, Power, and Transport	0.5	9-12
6865	Video Production I	0.5	9-12
6866	Video Production II	0.5	9-12
6870	Graphic Design I	0.5	9-12
6871	Graphic Design II	0.5	9-12
6874	Architectural Design	0.5	9-12
6972	Accounting	0.5	10-12
6973	Marketing	0.5	9-12
6974	Intro to Business	0.5	9-12

**Course offerings are based on enrollment and availability*

MARPLE NEWTOWN HIGH SCHOOL ELECTIVE COURSES 23-24

VISUAL AND PERFORMING ARTS

6889	Photo Then & Now	0.5	9-12
6890	Photo I	0.5	9-12
6891	Photo II	0.5	9-12
6892	Photo III	0.5	10-12
6893	Photo IV	0.5	11-12
6894	Digital Imaging	0.5	9-12
6895	Digital Imaging II	0.5	9-12
6896	Digital Imaging III	0.5	10-12
6897	Digital Imaging IV	0.5	11-12
7560	Piano I	0.5	9-12
7561	Piano II	0.5	9-12
7562	Guitar I	0.5	9-12
7563	Guitar II	0.5	9-12
7810	AP Music Theory	1.0	10-12
7870	Music Theory	0.5	9-12
7880	Band Brass	1.5	9-12
7881	Band Percussion	1.5	9-12
7882	Band Woodwind	1.5	9-12
7883	Choir	1.5	9-12
7885	Orchestra	1.5	9-12
7892	Music Technology I	0.5	9-12
7893	Music Technology II	0.5	10-12
7894	Music Technology III	0.5	10-12
7910	AP Studio Art Drawing	1.0	11-12
7911	AP Studio Art 3-D Design	1.0	11-12
7912	AP Studio Art Photo	1.0	11-12
7913	AP Studio Art Digital	1.0	11-12
7915	AP 2-D Art and Design	1.0	12
7970	Drawing & Painting	0.5	9-12
7971	Visual Art	0.5	9-12
7972	Decorative and Func Art	0.5	9-12
7973	3-D Design	0.5	9-12
7975	Illustration & Cartoon I	0.5	9-12
7976	Illustration & Cartoon II	0.5	10-12
7980	Studio Art I	1.0	9-12
7981	Studio Art II	1.0	10-12
7982	Studio Art III	1.0	11-12
7991	Ceramics I	0.5	9-12
7992	Ceramics II	0.5	9-12

**Course offerings are based on enrollment and availability*