

PROGRAM OF STUDIES

METUCHEN HIGH SCHOOL

2021-2022





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FOR THE
2021-2022 SCHOOL YEAR

PREPARED BY

THE SCHOOL COUNSELING DEPARTMENT

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Mission Statement

Metuchen High School, building on a tradition of academic and co-curricular distinction, provides a safe and nurturing environment for all students. As an educational cornerstone in our historical, small suburb, we recognize the high expectations of our community. Our curricular offerings are an integral part of an evolving program that meets each student's intellectual, social, and emotional needs. We encourage our students to strive for excellence. Our school balances innovative, experiential, and traditional learning, encouraging all students to discover their talents, develop their strengths, and become responsible and productive citizens of a rapidly changing world.

District & MHS Administration

Dr. Vincent Caputo, Superintendent of Schools
Richard Cohen, Assistant Superintendent of Schools
Dr. Tania Herzog, Director of Special Services
Bruce J. Peragallo, Principal
Brian Stike, Vice Principal

The School Counseling Department

Brenda S. Gupta, Supervisor
Elizabeth DeMott, School Counselor
Traci Grauer, School Counselor
Leigh Hanbridge, School Counselor

Department Supervisors

John Cathcart, Supervisor of Physical & Health Education and Athletic Director
Natalie Dougherty, Supervisor of English Language Learner Program and Instructional Technology
Kathleen Henn, Supervisor of Science, Mathematics, Practical Arts, and Business
Ashley Jaye, Supervisor of Art, Music, World Language, and Gifted and Talented
Jennifer North, Supervisor of Language Arts and Social Studies

Graduation Requirements / College Preparation

Subject Areas	Required Credits/Coursework for MHS Diploma	Recommended Credits/Coursework for College Preparation
English	20 Credits (4 years)	20 Credits (4 years)
Mathematics	15 Credits (3 years) to include Algebra 1 and Geometry (or content equivalent) and a third year of mathematics that builds on the concepts and skills of algebra and geometry and that prepares students for college and 21st century careers	20 Credits (3-4 years)
Science	15 Credits (3 years) to include 5 credits of laboratory biology/life science; 5 credits of chemistry, environmental science or physics, and 5 credits of an additional lab/inquiry based science	15 - 24 Credits (3 -4 years)
Social Studies	15 Credits (3 years) to include 5 credits in World Cultures and 10 Credits in United States History; and the integration of civics, economics, geography and global content in all courses.	15 - 20 Credits (3-4 years)
World Language	10 Credits (2 years) 2 consecutive years of one language	15 - 20 Credits (3-4 years) 3 to 4 consecutive years of one language
Physical Education/Health	5 Credits for each year of enrollment or 4 Credits for each year of enrollment for students who take a Lab Science; <i>Mandatory CPR & AED training</i>	5 Credits for each year of enrollment or 4 Credits for each year of enrollment for students who take a Lab Science; <i>Mandatory CPR & AED training</i>
Visual and Performing Arts	5 Credits (1 year)	Reflecting interests and talents
Practical Arts 21 st Century Life and Careers	5 Credits (1 year)	Reflecting interests and talents
Financial/Economic Literacy	2.5 Credits (1/2 year or 1 semester)	2.5 Credits (1/2 year or 1 semester)
Technical Literacy	Consistent with Core Content Curriculum Standards integrated throughout curriculum	Consistent with Core Content Curriculum Standards integrated throughout curriculum
State Assessments	See "Assessment Requirements" Chart on next page.	See "Assessment Requirements" Chart on next page.
Total Credits	120 credits - Required minimum	140 + credits – Recommended

It is highly recommended that students go above and beyond the minimum requirements. Note that some colleges have unique requirements. It is recommended to consult the online admissions page of each institution for more specific information.

Assessment Requirements

On January 11, 2021, the New Jersey Department of Education (NJDOE) updated the high school graduation assessment requirements in both English Language Arts/Literacy (ELA) and Mathematics for the Class of 2022, pursuant to an amended Consent Order from the Appellate Division of the Superior Court of New Jersey.

The Class of 2022

The high school assessment graduation requirements that are in place for the Class of 2022 are:

In **English Language Arts/Literacy**, students must demonstrate proficiency:

1. On NJSLA/PARCC ELA 10; *or*
2. By meeting the designated cut score on an alternative assessment such as other high school-level NJSLA/PARCC assessments, the SAT, ACT, or ACCUPLACER as defined in the chart on Page 7; *or*
3. By submitting, through the district, a student portfolio appeal to the New Jersey Department of Education.

Proficiency levels/cut scores for the Classes of 2021 and 2022 are specified in the chart on Page 7.

In **Mathematics**, students must demonstrate proficiency:

1. On NJSLA/PARCC Algebra I; *or*
2. By meeting the designated cut score on an alternative assessment such as other high school-level NJSLA/PARCC assessments, the SAT, ACT, or ACCUPLACER as defined in the chart on Page 7; *or*
3. By submitting, through the district, a student portfolio appeal to the New Jersey Department of Education.

Proficiency levels/cut scores for the Classes of 2021 and 2022 are specified in the chart on Page 7.

Note: Special Education students, whose Individualized Education Plans (IEPs) specify an alternative way to demonstrate proficiencies, will continue to follow the graduation assessment requirements set forth in their IEPs.

ELA and Mathematics Assessment Graduation Requirements for the Class of 2022

This document reflects the high school graduation assessment requirements for the Class of 2022, pursuant to an amended Consent Order received by the NJDOE from the Appellate Division of the Superior Court of New Jersey on June 5, 2019. The requirements for the Class of 2019, including the cut scores, remain unchanged from the requirements that were applied to the Classes of 2017 and 2018. These requirements now apply to the Class of 2022.

Three Pathways Available	English Language Arts (ELA)	Mathematics
<u>First Pathway</u> Demonstrate proficiency in the high school end-of-course NJSLA/PARCC assessments in ELA-10 and/or Algebra I	NJSLA/PARCC ELA Grade 10 \geq 750 (Level 4)	NJSLA/PARCC Algebra I \geq 750 (Level 4)
<u>Second Pathway</u> Demonstrate proficiency in English Language Arts and/or Mathematics by meeting the designated cut score on one of the alternative assessments	NJSLA/PARCC ELA Grade 9 \geq 750 (Level 4), <i>or</i> NJSLA/PARCC ELA Grade 11 \geq 725 (Level 3) <i>or</i> SAT Critical Reading (taken before 3/1/16) \geq 400, <i>or</i> SAT Evidence-Based Reading and Writing Section (taken 3/1/16 or later) \geq 450, <i>or</i> SAT Reading Test (taken 3/1/16 or later) \geq 22, <i>or</i> ACT Reading or ACT PLAN Reading \geq 16, <i>or</i> ACCUPLACER WritePlacer \geq 6, <i>or</i> ACCUPLACER WritePlacer ESL \geq 4, <i>or</i> PSAT10 Reading or PSAT/NMSQT Reading (taken before 10/1/15) \geq 40, <i>or</i> PSAT10 Reading or PSAT/NMSQT Reading (taken 10/1/15 or later) \geq 22, <i>or</i> ASVAB-AFQT Composite \geq 31	NJSLA/PARCC Geometry \geq 725 (Level 3), <i>or</i> NJSLA/PARCC Algebra II \geq 725 (Level 3) <i>or</i> SAT Math (taken before 3/1/16) \geq 400, <i>or</i> SAT Math Section (taken 3/1/16 or later) \geq 440, <i>or</i> SAT Math Test (taken 3/1/16 or later) \geq 22, <i>or</i> ACT or ACT PLAN Math \geq 16, <i>or</i> ACCUPLACER Elementary Algebra \geq 76, <i>or</i> Next-Generation ACCUPLACER Quantitative Reasoning, Algebra, and Statistics (QAS) (beginning January 2019) ² \geq 255, <i>or</i> PSAT10 Math or PSAT/NMSQT Math (taken before 10/1/15) \geq 40, <i>or</i> PSAT10 Math or PSAT/NMSQT Math (taken 10/1/15 or later) \geq 22, <i>or</i> ASVAB-AFQT Composite \geq 31
<u>Third Pathway</u> Demonstrate proficiency in English Language Arts and/or Mathematics through Portfolio Appeals	Meet the criteria of the NJDOE Portfolio Appeal for ELA	Meet the criteria of the NJDOE Portfolio Appeal for ELA

²Beginning on Monday, January 28, 2019, classic ACCUPLACER tests were no longer available. QAS replaced ACCUPLACER Elementary Algebra. For questions or concerns, please reach out to assessment@doe.nj.gov.

The Class of 2023 and Beyond

The NJDOE is committed to providing fair notice to students and educators and will continue to collaborate with stakeholders to transition to the next generation of statewide assessments.

General Information

The Program of Studies has been designed to assist students and parents in mapping out an appropriate and rigorous academic program for high school. Decision-making is an important part of the course selection process and therefore, offerings should be carefully reviewed in order to select courses that will best meet the needs, interests, and goals of each individual student. The school counselor, special education case manager (where applicable) and teachers, along with the parents/guardians, work together to help students through this process.

Students are expected to give careful consideration to the courses chosen during the **Course Selection Process**. In an effort to ensure that everyone fully understands the process, we require all families to 1) confirm the course requests submitted during the Course Planning conference and 2) acknowledge their understanding of the scheduling process outlined below.

- Any student/parent who disagrees with a **level placement** may submit a level change request form to the school counselor. The deadline for requesting a level change is the end of the 4th week of class.
- For level changes made at the end of the 4th week of class or beyond, the administrator and/or supervisor and parent/guardian permission is required. Written requests to withdraw from a course beyond this date will not be granted unless extremely extenuating circumstances exist. If withdrawal is sought and approved beyond this date, the permanent transcript will reflect one of the following: WP (withdraw/pass) or WF (withdraw/fail).
- Course requests are equivalent to **making a reservation** and driving the creation of the master schedule (number of sections, class sizes, periods when courses are offered, etc.). When a student changes his/her mind there is a possibility the new request(s) cannot be accommodated. *Therefore, it is important to choose all courses wisely during the Course Planning Conference.*
- Although every effort is made to accommodate elective requests, **no student is guaranteed his/her choice(s) of electives**. In the event of scheduling conflicts, seat limitations, or lack of enough requests, the alternate options provided may replace the first choice. *It is important to choose alternates wisely during the Course Planning Conference.*
- If a request is made for a **zero period class**, there is no guarantee for this placement, since 1) there must be enough requests to warrant a full section and 2) there are class size limits.
- When requesting **senior privilege**, students will either receive a late start OR an early release, depending on the scheduling configuration necessary to accommodate all other requested courses. There is a possibility that a hard conflict with a required course may interfere with this request.
- **The school cannot guarantee the period, time of day, or teacher assigned for any requested courses.** Requests for particular teacher(s) assigned, course periods, including lunch periods, are not accepted.
- When schedules are released in late August, **only the following scheduling issues will warrant an appointment with the counselor.**
 - Class on schedule was not requested
 - Missing period or course previously taken and passed
 - Previously failed a class on your schedule with the same teacher (every effort is made to not place student with same teacher)
 - Senior not scheduled in a course needed for graduation
- **Schedule changes are not permitted for the following reasons:**
 - Student prefers a different lunch period
 - Student prefers different classmates
 - Student prefers another teacher
 - Student prefers class during a different time of day
 - Student prefers Driver's Ed (Health 10) coordinates with his/her birthday
- **No schedule changes or withdrawals will be made after the first five (5) days of the school year for a semester one or full year course.** (Note: level change deadline is stated in bullet one). Course section and seat availability may limit the possibility to make some requested changes.

Course Planning Meetings

The School Counselors will meet with each student individually, between February and March, to assist with planning an appropriately rigorous course of study. Counselors will discuss course offerings, graduation requirements, and individual goals. Parents are required to approve the proposed schedule and are encouraged to telephone or participate in the conference in-person. Students are required to carry a minimum of 30 credits for each year of enrollment. The scheduling of appointments will be announced.

College Readiness

It is essential that all students plan a high school educational program that best prepares them for higher education. It is recommended that all students take the most rigorous coursework that they are prepared to handle. Graduation requirements will provide a solid foundation but students should always look to go above and beyond, taking additional academic course work to enhance preparedness. Students should plan to take at least five academic courses each year in the core content areas (Language Arts, Science, Mathematics, Social Studies and World Language). College admission counselors will expect a student's high school records to show academic rigor, quality of academic performance, and participation in extracurricular activities and community service.

Career Exploration

The Students of Metuchen Public Schools District will be prepared to make successful transitions from Metuchen Public Schools to post-secondary life and careers with connections between their academic experience and their career paths. They will explore their strengths, interests, and values as they gain not only content knowledge but also social emotional skills, self-regulation, communication, collaboration, and time management. Students will graduate with the skills necessary to set and achieve both academic, personal, and professional goals as they progress from career awareness, to exploration, and planning.

By the end of grade 12, students will have met the 21st Century Life and Careers Standard of Career Awareness, Exploration, and Preparation as well as the NJDOE's Career Ready Practices through a variety of activities completed throughout the years with classroom teachers and school counselors.

Genesis Parent Module

The Genesis Parent Module is a safe, secure way to view your child's school record for the current school year.

Genesis provides parents the following information for every child in the District:

- Marking Period, Exam and Final Grades
- Daily attendance record
- Teacher Gradebook assignments and assignment grades.
- Discipline records

If you have not registered, please contact the Guidance office.

Schedule Changes

Students are expected to give careful consideration to the courses chosen during the Course Selection Process. When a student selects a course, he/she is making a "reservation" which drives the creation of the Master Schedule. Withdrawing from a course is strongly discouraged, as it may adversely affect class sizes and course enrollment. Therefore, a schedule change should only be pursued under extraordinary circumstances. A request may be rejected if the deadline for withdrawal has passed, a section is filled, sections become grossly imbalanced, or the course is required for graduation.

Students/parents should discuss the following with the school counselor, prior to the request:

1. Availability of alternative course(s)
2. The impact of the change on the current schedule configuration and other course periods
3. The impact of the change on college preparation

Schedule Change Procedures

Course	Withdrawal Deadline <i>No Later Than</i>	Important Notes
Full Year and Semester 1 Courses (Including AP Electives)	THE 5TH DAY OF CLASS <i>Semester 1</i>	No grade will be recorded. <i>Student may move into open courses and will be responsible for any work missed to date.</i>
Semester 2 Electives	THE 5TH DAY OF CLASS <i>Semester 2</i>	
Level Changes	THE END OF THE 4th WEEK OF CLASS <i>Administrator/Supervisor and parent/guardian permission required. Written requests to withdraw from a course beyond this date <u>will not be granted</u> unless extremely extenuating circumstances exist.</i>	<i>If withdrawal is sought and approved beyond this date, the permanent transcript will reflect one of the following:</i> “WP” - Withdraw/Pass “WF” - Withdraw/Fail

Course Level-Change Procedures

The department supervisor, in consultation with the teacher, counselor, and parent/guardian(s), reviews all level change requests. Teacher Recommendations for placement are made at the end of the second marking period each year and are based on information available at the time. The review process involves careful review of historical data and new academic progress indicators. All requests must be made within the timeframe outlined below.

Procedures

- Student and parent/guardian(s) should:
 - Discuss the appropriateness of the level with the current teacher and school counselor.
 - Discuss with the school counselor the impact the move may have on the current schedule and on college preparation, if applicable.
 - Complete the **Level-Change Request Form** to submit a formal request for review. Include the specific reason for the request and any pertinent information that would support the case for a level change.
- The department supervisor will review student records and all performance indicators available.
- The supervisor or counselor will communicate the decision, along with a rationale, to the parent/guardian and student. The timeline for the decision will depend on the individual circumstances.
- Note:** For level changes made after the start of a course in September, all grades will follow the student. The student will also be responsible for any missed work.

Report Cards

Report cards are issued four times a year and can be viewed online in the Genesis Parent Module. All marks on report cards are represented by letter grades. Plus and minus signs are used to better reflect student performance within a given range of a particular grade.

All incomplete “I” grades must be made up as soon as possible. Time allotted to make up work is left to the discretion of the teacher, but generally should not exceed ten (10) days. Unless the work is made up within the time specified, the grade will be recorded as a U. The responsibility for arranging the make-up work rests entirely with the student.

Failure to complete the minimum requirements of a course, regardless of the previous grades, can result in a failing grade for the year. In addition, failure to take the final examinations will result in a failing grade for a course, regardless of previous marking period grades.

Grade Point Average

A Grade Point Average (or GPA) is a *measure of academic achievement* and is based on the *final grades* a student earns at the end of each school year. The GPA is cumulative, meaning it updates annually. The updated GPA is available to students annually on Naviance Student and on the student transcript visible in Genesis. It is highly recommended that each student set a GPA goal and monitor their progress toward reaching that goal. All students should strive to earn a 3.0 (B average) or higher.

How to Calculate the GPA

A GPA is calculated in three steps:

1. **Determine the “Quality Points” for each individual course** by multiplying the GPA Points/Weight of the grade earned by the Number of Credits assigned to that course.
2. **Add up all “Quality Points” earned and all “Credits Earned”** (or “anticipated credits to be earned” if using Marking Periods grades to obtain an early GPA estimate).
3. **Divide the “Total Quality Points” by the “Total Credits Earned”**.

GPA Points/Weight Table:

A GPA point is the weight assigned to a letter grade and varies based on level of course.

Grade	Regular	Honors	AP	Numerical Value
A+	4.3	4.8	5.3	99-100
A	4.0	4.5	5.0	92-98
A-	3.6	4.1	4.6	90-91
B+	3.3	3.8	4.3	88-89
B	3.0	3.5	4.0	82-87
B-	2.6	3.1	3.6	80-81
C+	2.3	2.8	3.3	78-79
C	2.0	2.5	3.0	72-77
C-	1.6	2.1	2.6	70-71
D+	1.3	1.8	2.3	68-69
D	1.0	1.5	2.0	62-67
D-	0.6	1.1	1.6	60-61
U	0	0	0	0-59

Credit Table:

Type of Course	Credits
Full Year	5
Science w/ Lab	5 or 6
4-Day Phys. Ed.	3
4-Day Health	1
5-Day Phys. Ed.	3.75
5-Day Health	1.25
Semester (1/2 year)	2.5

Example of a GPA Calculation:

Course Title	Letter Grade	GPA Points/ Weight	Credits Earned / To Be Earned	Calculation	Quality Points
English 11	A-	3.6	5	3.6×5	18.0
Hon. Algebra 2	A	4.5	5	4.5×5	22.5
Honors Physics	B+	3.8	6	3.8×6	22.8
Phys. Ed.	B+	3.3	3	3.3×3	9.90
Health	B	3.0	1	3.0×1	3.00
US Hist. 2	A	4.0	5	4.0×5	20.0
Spanish 3	B-	2.6	5	2.6×5	13.0
Graphic Design 1	B-	2.6	2.5	2.6×2.5	6.50
Financial Literacy	C+	2.3	2.5	2.3×2.5	5.75
			Total Credits 35	$121.45 \div 35$	Total QP's 121.45
					Weighted GPA = 3.47

How to Calculate the Cumulative GPA

If you DO NOT have the same number of attempted credits each year:

- Add all Quality Points to date and divide by the Total Credits to date. Ex. (9th Grade – 35 credits) 123.5 QP's + (10th grade – 35 credits) 126.5 QP's + (11th Grade – 40 credits) 131.5 QP's = 381.5 (Total QP's) \div 107.5 (Total credits) = 3.54 Weighted GPA

If you DO have the same number of attempted credits each year:

- Add all GPA's to date and divide by the total years. Ex. (9th Grade – 35 credits) 3.59 QP's + (10th Grade – 35 credits) 3.35 QP's + (11th Grade – 35 credits) 3.78 QP's. Total QP's = 10.72 \div 3 (years) = 3.57 Weighted GPA

Honor Roll

Each marking period, an honor roll is compiled using marking period grades only. A gold star icon in the Genesis Parent Access Portal indicates an honor roll designation for each marking period.

The two types of honor roll:

1. "A" Honor Roll (High Honor Roll) – All grades are A.
2. "A/B" Honor Roll – All grades are A or B.

Summer School Policy

Students who receive a final grade of "U" in a course required for graduation must either attend an approved summer school or repeat the course. A summer school remedial course must meet for at least 60 hours of instruction. In order to be eligible for summer school, a student must remain in a course for the entire year. A student removed from a class due to disciplinary reasons, prior to the conclusion of the course, is not permitted to attend summer school. Counselors provide a list of summer school options to students who require summer school at the end of the school year.

Any grade earned in summer school as part of credit recovery will not be calculated into a student's grade point average. The course will be listed on the transcript and credits will be applied toward graduation requirements.

Request to Advance in Course Placement via Summer Studies

Any student wishing to take a course at an institution other than Metuchen High School, for the purpose of advancing their course placement, must first complete a formal request form (**Request to Advance form**). All requests must be approved by the appropriate academic department supervisor. Any course taken outside of Metuchen High School at a college or approved local educational agency, as part of an approved request to advance in course studies, will not be included on the high school transcript.

Please note that all English and History courses, as well as Algebra 1, Geometry and Biology, must be taken within the Metuchen Public Schools, and are not eligible for this advancement process.

The student must:

1. Submit this form to the school counselor, which must include a rationale for the request and a 4-year course of study plan for MHS.
2. Complete and pass a “pre-approved” course from an accredited institution with a minimum grade of B to advance to an Honors level course. (Must be a full-course w/ min. 120 hours or 3-college credits)
3. Submit to the School Counseling Office an *official transcript* from the institution where the course was taken.
4. Take and pass the MHS final exam with a minimum grade of a B to advance to an approved Honors level course in August, before the start of the school year.

Independent Study Program

What is an Independent Study and who is eligible to participate in this program? Independent Study is available to students in grades eleven (11) or twelve (12) who have exhausted our curriculum in a particular area and desire to continue that area of study or to students who desire to study an area of interest that is not offered within the curriculum at Metuchen High School. The range of topics is unlimited and any student, regardless of academic ability, may apply.

The program offers students an opportunity to select a project of choice and utilize resources in and out of school for completion of the project. Students work independently to complete the project. Decisions concerning suitability of a proposed project will be related to a student’s interests, abilities, educational goals and objectives.

How does an Independent Study Contract get approved? Students are required to complete the application and attach a project proposal. The contract must be agreed upon by the student, the faculty advisor, and department supervisors. There are numerous approvals, with required signatures, in this process.

Steps the student must follow:

1. Complete the Independent Study Application/Contract.
2. Choose a faculty advisor, a member of the Metuchen High professional staff, who is willing to oversee the project completion and provide necessary support.
3. Work with the faculty advisor to develop goals, determine materials, resources and an appropriate method of evaluating the project and develop the project proposal.
4. Sign the application/contract and obtain the signature of the faculty advisor (once the above (#3) is mutually agreed upon.)
5. Obtain signatures on the application/contract from a parent/guardian and school counselor.
6. Submit the contract and project proposal to the Counseling Office for final review and ***pending approval by the Supervisor of Counseling and the Department Supervisor.***
7. If approved, a copy of the contract will be sent to the student, teacher, school counselor, department supervisor and Supervisor of School Counseling.

When will the independent work be completed? Independent Study is conducted during the school day and the designated period is determined based upon the student’s schedule and the faculty advisor’s availability (teacher’s prep period). A section will be created for the student and will be assigned to the faculty advisor for the purpose of attendance and grading. The student must report to that teacher during the designated time indicated on the student’s schedule.

How will the project be graded and the grade recorded on the transcript? Academic credits may be granted upon completion of the project, once the faculty advisor informs the Counseling Office that all agreed upon criteria have been met. Successful completion of an Independent Study will result in the grade of “P” for Passing. Grades for Independent Study are not factored into the grade point average. *If a student discontinues the Independent Study without completing the work and the hours agreed upon in the contract, partial credit will not be given.* The student must fulfill the full terms of the contract.

Eligibility Policy

To be eligible to participate in a co-curricular activity a student must pass or be passing no less than six (6) subjects (the equivalent of 30 credits on a full-year basis) during a given marking period. Eligibility determinations will be made at the conclusion of each marking period for the following marking period.

Co-curricular activities include interscholastic athletics, drama productions, musical groups, clubs, student government, service organizations, honor societies, co-curricular trips, school publications, academic teams, etc.

Athletic Eligibility Policy

To be eligible for participation in the interscholastic athletic program of a New Jersey State Interscholastic Athletic Association (NJSIAA) member school, all high school students must meet, at a minimum, all the eligibility requirements of the Constitution, Bylaws, and Rules and Regulations of the NJSIAA. To be eligible for athletic competition during the first semester (September 1 to January 31) a pupil must have passed 25% of the credits (30) required by the State of New Jersey for graduation (120), during the immediately preceding academic year. To be eligible for athletic competition during the second semester (Feb. 1 to June 30), a pupil must have passed the equivalent of 12.5 % of the credits (15) required by New Jersey for graduation (120) at the close of the preceding semester (Jan. 31). Full-year courses shall be equated as one-half of the total credits to be gained for the full year to determine credits passed during the immediately preceding semester. A student in any grade must maintain a satisfactory record of attendance to be eligible for participation in school district sponsored programs of athletic competition. An attendance record is unsatisfactory if the number of unexcused absences exceed 18 school days in the school year prior to the student commencing participation in school district sponsored programs of athletic competition.

NCAA Eligibility

College-bound athletes need to be sure they meet NCAA eligibility requirements. Students should check with their school counselor for NCAA information or go to www.eligibilitycenter.org. The NCAA uses a sliding scale in regard to GPA and SAT/ACT scores.

Program Options

Honors Courses

Honors courses are designed to meet the needs of students who have demonstrated a high level of proficiency in given areas. These courses require more than usual time and effort as well as sustained motivation on the part of the students. To reflect the rigorous nature of the honors courses, a +0.5 point grade differential is applied when calculating the weighted GPA.

Honors English 9	Honors French 4	Honors Biology
Honors English 10	Honors French 5	Honors Chemistry
Honors English 11	Honors Algebra 2	Honors Health Science
Honors English 12	Honors Plane/Solid Geometry	Honors World Cultures
Honors Spanish 4	Honors Pre-Calculus	Honors Art III – Portfolio Development
Honors German 4	Honors Calculus	Honors Art IV
Honors German 5	Honors Calculus 3	

Advanced Placement (AP) Program

The AP Program provides academically talented students with an opportunity to upgrade the quality and increase the challenge of their program of studies, both in high school and in college. In addition to the intensified study of a given discipline, the AP Program includes the administration of College Board AP examinations in May of each year. Students who participate in the Program, and take the examinations, are candidates for college credit and/or advanced placement earned in high school courses. More than 1,700 colleges currently participate in the AP Program. To reflect the rigorous nature of the AP courses, a +1.0 point grade differential is applied when calculating the weighted GPA.

AP English Language & Composition	AP Environmental Science
AP English Literature & Composition	AP Physics 1
AP Spanish Literature & Culture	AP Physics 2
AP Spanish Language & Culture	AP U.S. History Part 1
AP French Language & Culture	AP U.S. History Part 2
AP German Language & Culture	AP Modern European History
AP Calculus AB	AP Psychology
AP Calculus AB/BC	AP U.S. Government & Politics
AP Computer Science A	AP Music Theory
AP Computer Science Principles	AP Art and Design
AP Statistics	AP Art History
AP Biology	AP Microeconomics
AP Chemistry	AP Macroeconomics

Virtual High School (VHS) Program

In addition to taking courses at Metuchen High School, a limited number of students in grades 10-12 will have the opportunity to take courses online through Virtual High School. Online courses provide a different learning environment and can offer exposure to the Internet platform used in many college classes. The courses offered range from electives to AP and from semester long to full-year. All policies of Metuchen High School courses apply to Virtual High School courses. Grades and credits earned will be applied accordingly to a student's GPA and official transcript. Students interested in taking an online course should speak to their school counselor when they meet for scheduling. To learn more about Virtual High School, view the brochure available on the Scheduling and Course Planning page of the MHS School Counseling Website. Space is limited. Any VHS courses taken independently, outside of our program, will not be recorded on a student's transcript.

Independent Study Program

This program offers students an opportunity to select a project of choice and utilize resources in and out of school for completion of the project. Students select their own preceptor, specify individual goals, determine materials, resources and evaluation design, and work independently toward achieving these goals. The range of topics is unlimited and any student, regardless of academic ability, may apply. Academic credits may be granted upon completion of the project. Grades for Independent Study are not factored into the grade point average. See the "Independent Study Program" section on page 13 for more information.

Full Course Listing

English Lang. Arts	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
ESL	X				5
English 9	X				5
Honors English 9	X				5
ESL		X			5
English 10		X			5
Honors English 10		X			5
ESL			X		5
English 11			X		5
Honors English 11			X		5
AP Eng. Lang. & Comp.			X		5
ESL				X	5
English 12				X	5
Honors English 12				X	5
AP Eng. Lit. & Comp.				X	5
African-American Literature*			X	X	2.5
Writers' Workshop ^A			X	X	2.5
Survey of Theater ^A	X	X	X	X	2.5
Classic American Theater ^A	X	X	X	X	2.5
Introduction to Film		X	X	X	2.5
Speech & Comm. ^A		X	X	X	2.5
Poetry of Song ^A		X	X	X	2.5
Songwriters' Workshop ^A		X	X	X	2.5
English Word Derivation & Etymology ^A		X	X	X	2.5

World Languages	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
French 2	X	X	X	X	5
French 3		X	X	X	5
Honors French 4			X	X	5
Honors French 5				X	5
AP French Language				X	5
German 2	X	X	X	X	5
German 3		X	X	X	5
Honors German 4			X	X	5
Honors German 5				X	5
AP Ger. Lang. & Cult.				X	5
Spanish 1	X	X	X	X	5
Spanish 2	X	X	X	X	5
Spanish 3		X	X	X	5
Honors Spanish 4			X	X	5
Spanish 4 Comm.			X	X	5
Spanish 5 Comm.			X	X	5
Spanish Comm./Cult. 1	X	X	X	X	5
Spanish Comm./Cult. 2		X	X	X	5
AP Span. Lit. & Cult.				X	5
AP Span Lang. & Cult.			X	X	5

Social Studies	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
World Cultures	X				5
Hon. World Cultures	X				5
U.S. History 1		X			5
AP U.S. History Part 1		X			5
U.S. History 2			X		5
AP U.S. History Part 2			X		5
Psychology			X	X	5
AP Psychology			X	X	5
Sociology			X	X	5
Global Social Issues ^A			X	X	2.5
American Social Issues ^A			X	X	2.5
The Holocaust ^A			X	X	2.5
Genocide After WWII ^A			X	X	2.5
AP Mod. European History			X	X	5
AP U.S. Govt. & Politics			X	X	5
Financial Literacy		X	X	X	2.5

Mathematics	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
Algebra 1	X	X			5
Plane Geometry	X	X	X		5
Hon. Plane & Solid Geom.	X	X			5
Algebra 2	X	X	X	X	5
Honors Algebra 2	X	X	X		5
Pre-Calculus*			X	X	5
Honors Pre-Calculus		X	X	X	5
Honors Calculus			X	X	5
Honors Calculus 3			X	X	5
AP Statistics			X	X	5
AP Calculus AB			X	X	5
AP Calculus AB/BC			X	X	5
AP Computer Science Principles	X	X	X	X	5
Comp. Programming in Java	X	X	X	X	5
Web Programming	X	X	X	X	2.5
Python	X	X	X	X	2.5
AP Computer Science A		X	X	X	5
Math Investigations				X	2.5
Discrete Math				X	2.5

* Indicates a New Course Offering
^A Offered in alternating years

Science	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
Modern Biology	X				6
Honors Biology	X				6
Modern Chemistry		X			6
Honors Chemistry		X			6
Modern Physics			X	X	6
Modern Env. Science			X	X	6
Honors Health Science			X	X	6
AP Environmental Science			X	X	6
AP Biology			X	X	6
AP Chemistry			X	X	6
AP Physics 1			X	X	6
AP Physics 2				X	6

Visual/Performing Arts	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
Art I – Intro. to Art	X	X	X	X	5
Art II – 2D		X	X	X	2.5
Art II – 3D*		X	X	X	2.55
Hon. Art III – Portfolio Development			X	X	5
Honors Art IV				X	5
AP Art and Design				X	5
AP Art and Design (Double)				X	10
AP Art History^A			X	X	5.0
Photography/Digital Media 1	X	X	X	X	2.5
Photography/Digital Media 2*	X	X	X	X	2.5
Band	X	X	X	X	5
Orchestra	X	X	X	X	5
Concert Choir	X	X	X	X	5
Music Technology	X	X	X	X	5
Music in American History^{A*}	X	X	X	X	2.5
Music in Modern America^{A*}	X	X	X	X	2.5
Music Theater^A	X	X	X	X	2.5
Music Foundations^A	X	X	X	X	2.5
AP Music Theory^A			X	X	5

Physical Ed. & Health	Grade Level				Credits
	9	10	11	12	
Phys. Ed. & Health 5-Day					5
Phys. Ed. & Health 4-Day (1-Day Science Lab)					4
Unified PE & Health			X	X	5

* Indicates a New Course Offering

^A Offered in alternating years (please reference pages 19, 20, 28, 29, 40, 42, 43, and 47 for listing of courses offered for the 2021-2022 school year)

Practical Arts	Grade Levels				Credits
<i>Course Title</i>	9	10	11	12	
Foods/Nutrition	X	X	X	X	5
American Foods		X	X	X	2.5
International Foods		X	X	X	2.5
Food Science			X	X	5
Meal Service Management				X	5
Drafting/Computer Aided Design (CAD)	X	X	X	X	5
Engineering & Technology	X	X	X	X	5
Digital Graphics 1	X	X	X	X	2.5
Digital Graphics 2	X	X	X	X	2.5
Robotics	X	X	X	X	5
Woodworking	X	X	X	X	5
AP Microeconomics^A			X	X	5
AP Macroeconomics^A			X	X	5
Entrepreneurship	X	X	X	X	5
Business Information Management	X	X	X	X	2.5
Digital Marketing	X	X	X	X	2.5

Additional courses that meet the Practical Arts Requirement	
<i>Course Title</i>	Credits
Introduction to Film	2.5
Speech & Communication	2.5
Poetry of Song	2.5
Songwriter's Workshop	2.5
Writers' Workshop	5.0
Comp. Programming in Java	5.0
Web Programming & Visual Basic	2.5
AP Computer Science	5.0
AP Computer Science Principles	5.0
Music Technology	5.0
Photography/ Digital Media 1	2.5
Photography/ Digital Media 2	2.5

Above courses can only fulfill one graduation requirement.

English Language Art

Jennifer North – Supervisor

The English program offers a sequence of studies in language and literature. A year-by-year breakdown of the core program and electives is listed below.

English Core Courses: These courses count toward the graduation requirement in this subject area.

Grade Level	Course	Credits
Grade 9	ESL	5
	English 9	5
	Honors English 9	5
Grade 10	ESL	5
	English 10	5
	Honors English 10	5
Grade 11	ESL	5
	English 11	5
	Honors English 11	5
	AP Eng. Lang. & Comp.	5
Grade 12	ESL	5
	English 12	5
	Honors English 12	5
	AP Eng. Lit. & Comp.	5

Honors Placement

Students who have achieved advanced proficiency in reading and writing and are highly motivated and diligent may be recommended for placement in the Honors level classes in grades 9 through 12. Students in grade 11, who have been recommended for an honors level, may apply for a two-year AP program. AP English Language & Composition (11) and AP English Literature & Composition (12) will prepare students for the AP English exams.

Graduation Requirement

The New Jersey Department of Education requires all students to complete at least **20 credits of English**, which must include an English course for each level of high school.

English Elective Courses: The following electives may be taken IN ADDITION to the required English course.

Course Title	Criteria/Grade Level	Credits
Writers' Workshop^A	11,12	2.5
African-American Literature	11, 12	2.5
Survey of Theater^A	9, 10, 11, 12	2.5
Classic American Theater^A	9, 10, 11, 12	2.5
Introduction to Film	10, 11, 12	2.5
Poetry of Song (Fall Sem.)^A	10, 11, 12	2.5
Songwriters' Workshop (Spring Sem.)^A	10, 11, 12	2.5
Speech & Communication^A	10, 11, 12	2.5
English Word Derivation & Etymology^A	10, 11, 12	2.5

^A -Offered in alternating years

Core Course Descriptions

English 9

Full Year / 5 credits

This course is offered at the college prep and honors level.

This course is credited toward the English requirement for graduation.

Freshman English teaches students to communicate in reading, writing, listening, speaking, and critical viewing with relative ease, clarity, and appropriateness. Skills are refined through personal essays and assignments focusing on the major discourses of exposition, narration, description, and persuasion with topics generated from the literature (fiction and nonfiction) studied. Students read classic works as well as writings of contemporary poets, playwrights, and novelists. The curriculum focuses on vocabulary development and improved usage and fluency in writing. Throughout the year, students will work on a variety of research projects.

English 10

Full Year / 5 credits

This course is offered at the college prep and honors level.

This course is credited toward the English requirement for graduation.

Sophomore English continues to teach students how to effectively communicate in reading, writing, listening, speaking, and critical viewing. During the year, students achieve a greater level of competency in both written and oral communication. The curriculum focuses on vocabulary development and improved usage and fluency in writing. This course continues an investigation and analysis of classic and contemporary literary selections, as well as critical analysis of expository text. Throughout the year, students will work on a variety of research projects.

English 11

Full Year / 5 credits

This course is offered at the college prep and honors level.

This course is credited toward the English requirement for graduation.

Junior English offers a thematic and historical approach to the study of American literature. Students will study the American literary tradition through classic and contemporary works (both fiction and nonfiction). Students will be required to complete research activities and prepare and deliver a formal speech. The curriculum focuses on vocabulary development and improved usage and fluency in writing. This course continues to emphasize both expository and narrative writing, as well as critical analysis and persuasive writing.

AP English Language & Composition (Grade 11)

Full Year / 5 credits

This course is credited toward the English requirement for graduation.

The AP English Language and Composition course aligns to introductory college-level rhetoric and writing curriculum, which requires students to develop evidence-based analytic and argumentative essays that proceed through several stages or drafts. Students evaluate, synthesize, and cite research to support their arguments. Throughout the course, students develop a personal style by making appropriate grammatical choices. Additionally, students read and analyze the rhetorical elements and their effects in non-fiction texts, including graphic images as forms of text, from many disciplines and historical periods.

English 12

Full Year / 5 credits

The course is offered at the college prep and honors level.

This course is credited toward the English requirement for graduation.

Senior English is a comprehensive study of the literary canons of American and world literature. Classical, as well as contemporary, works are critically analyzed. Students will spend time working on reading and writing college-level literature and informational text. Students will also be afforded opportunities to develop their college application essay. Debates (design, format, and implementation) are a significant part of the program. Students entering the job market after graduation will strengthen their literacy and communication skills through an emphasis on everyday texts and life skills. Throughout the year, students will work on a variety of critical analyses and research projects.

AP English Literature & Composition (Grade 12)

Full Year / 5 credits

This course is credited toward the English requirement for graduation.

The AP English Literature and Composition course aligns to an introductory college-level literary analysis course. The course engages students in the close reading and critical analysis of imaginative literature to deepen their understanding of the ways writers use language to provide both meaning and pleasure. As they read, students consider a work's structure, style, and themes, as well as its use of figurative language, imagery, symbolism, and tone. Writing assignments include expository, analytical, and argumentative essays that require students to analyze and interpret literary works.

English 1, 2, 3, & 4

Full Year / 5 credits

By Referral Only

This course is credited toward the English requirement for graduation.

The objective of these classes is to improve the reading level, comprehension level and confidence of the individual student. Curriculum is based on the specific strengths and weaknesses of each class member and is approached in terms of individual problems. Activities include oral interpretation and creative writing through classics, recordings, oral readings and a variety of texts. It is expected that at the end of the course students will be better readers, with greater comprehension and more confidence.

Elective Course Descriptions

African-American Literature

½ Year / 2.5 credits

This class will offer a comprehensive survey of the diverse works of African-American authors. It will provide an opportunity for the study and discussion of the styles and perspectives that African American authors use in their work. Students will explore a variety of genres within African American literature, including works of fiction and nonfiction, the poetry of the Harlem Renaissance, the evolution and popularity of rap music, and the films of African-American directors.

Writers' Workshop

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL be available for 2021-22)

This is a unique English elective for juniors or seniors who are looking for something “different.” Those who take this course must love to write. Students will write extensively and will respond to all types of writing including fiction, non-fiction, prose and poetry. Students will be given the opportunity to write creatively and will be involved in peer critiquing as well as receive more formal criticism from the instructor. A positive and supportive atmosphere in a seminar-like setting allows students to explore their interests and talents, take risks and find pleasure in composing. Each student will be required to compile a portfolio of all writing done throughout the year.

Survey of Theater History

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL NOT be available for 2021-22)

This is the first of two elective courses: Survey of Theater History, and Classic American Theater. Survey of Theater History will provide students with a broad overview of the history of theater from ancient times through modern theater. The program is open to any student with an interest in theater and performing, as a means to explore theater and its components, to develop a greater appreciation of theater, and to explore potential career paths. The course will include close reading, analysis of playwright craft, and evaluation of staged performances. The course sequence is aligned with the New Jersey Student Learning Standards in the Performing Arts and English Language Arts.

Classic American Theater

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL NOT be available for 2021-22)

This is the second of two elective courses: Introduction to Survey of Theater History and Classic American Theater. Classic American Theater will provide students with an opportunity to closely study some of the most prominent works of American Theater. The program is open to any student with an interest in theater and performing, as a means to explore theater and its components, to develop a greater appreciation of theater, and to explore potential career paths. The course will include close reading, analysis of playwright craft, and evaluation of staged performances. The course sequence is aligned with the New Jersey Student Learning Standards in the Performing Arts and English Language Arts.

Introduction to Film

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

This elective is open to sophomores, juniors or seniors; who are avid film lovers. This course is an in-depth analysis and application of the ways that filmmakers may evoke thought and emotion from an audience. How does a film thrill? Depress? Infuriate? Inspire? The class will look at specific techniques (lighting, sound, editing, cinematography, etc.) of a director, as well as the aesthetic philosophy that supports each individual film.

Poetry of Song

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL NOT be available for 2021-22)

This semester course approaches songwriting as a craft similar to writing poetry and longer literary works. Students will study the evolution of the art form from Tin Pan Alley to the modern masters of songwriting, blending the many genres from jazz, blues, rock, folk, R&B, country, and rap. Students will study the major lyricists and learn to analyze songs using the same tools they would bring to studying poetry and prose in their English classes, as well as seeing how the musicians and interpreters add meaning to the words. Students will then study longer forms such as opera, concept albums, movies and musicals. They will analyze how visual elements work with the lyrics to create deeper meaning and sometimes obscure the meaning.

Songwriters' Workshop

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL NOT be available for 2021-22)

This semester course approaches songwriting as a craft similar to writing poetry and longer literary works. Students will partake in a songwriter's workshop writing songs in different styles and themes. This will culminate in a major project; involving recording, performing, and/or podcasting their original works. The class is designed to be writing-intensive with students regularly writing analytical essays and keeping a portfolio of original songs.

Speech and Communication

½ Year / 2.5 credits

This course satisfies 2.5 credits of the 5-credit practical arts requirement.

(Offered in alternating years – WILL NOT be available for 2021-22)

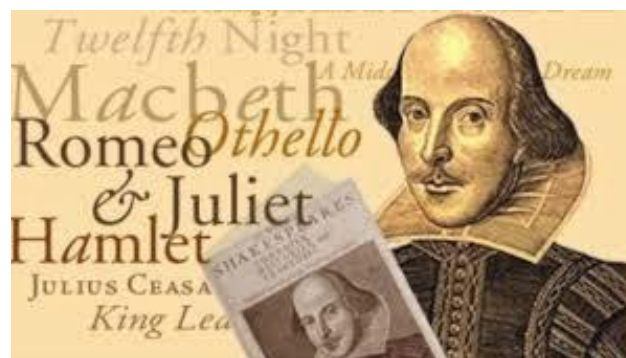
Speech and Communication is a semester course designed to help students develop and enhance their skills in communications with a focus on speaking, listening and viewing. Students will study communication effectiveness using voice, speech, verbal and non-verbal language, listening and presentation skills. Students will be expected to research, write, and deliver prepared speeches, to give extemporaneous speeches and to participate in formal discussions, panels, and debates. In addition, students will be involved in oral readings of poetry and prose. They will create multimedia presentations, critique visual and oral presentations, and evaluate visual and verbal persuasive techniques. This course is designed for students who plan to attend college, as well as those who will need communication skills in the workplace.

English Word Derivation & Etymology

½ Year / 2.5 credits

(Offered in alternating years – WILL be available for 2021-22)

This is a semester elective for students in grades ten, eleven, and twelve, who are interested in the study of word origins. This course builds on vocabulary and knowledge of the English language (and its history) by studying Latin and Greek stems, prefixes and suffixes, as well as words derived from various languages. This course may assist students with world language content connections, vocabulary development, and support for college entrance exams.



Course Descriptions

English as a Second Language

Full Year / 5 credits

An ESL program is provided to our English Language Learners (ELL's).

This course is credited toward the English requirement for graduation.

A student qualifies for ESL services, depending upon the score achieved on a New Jersey state-approved test for English proficiency. A student previously placed in one of our ESL courses, either at the high school level or the middle school level, will continue that placement until he/she demonstrates fluency on a New Jersey state-approved test for English proficiency and is recommended to exit by the ESL teacher. The ESL course is taken in lieu of the regular English course and credit toward graduation is awarded upon successful completion of the course at the end of the school year. All ELL's are subject to all other graduation requirements.

	Courses Offered	Credits
French	French 2, 3	5
	Honors French 4, Honors French 5	5
	AP French Language & Culture	5
German	German 2, 3	5
	Honors German 4, Honors German 5	5
	AP German Language & Culture	5
Spanish	Spanish 1, 2, 3,	5
	Spanish Communication & Cult. 1 & 2	5
	Spanish 4 Communications	5
	Spanish 5 Communications	5
	Honors Spanish 4	5
	AP Spanish Literature & Culture	5
	AP Spanish Language & Culture	5

Honors Placement

Students with a background in French, German or Spanish are encouraged to inquire about participating in the upper level courses of the World Language program.

Graduation Requirement

The Metuchen Board of Education requires all students to complete at least two years (10 credits) of World Language, which must include at least two consecutive years of study in one language. Three to four years (15-20 credits) is recommended for a stronger college prep program.

Course Descriptions

French 2

Full Year / 5 credits

Prerequisite: Completion of French 8 in middle school

This course will continue to develop the basic skills of listening, speaking, reading, and writing practical French. Culture study will acquaint the student with contemporary life in French speaking countries and regions in North America and Africa.

French 3

Full Year / 5 credits

Prerequisite: French 2

French 3 consists of four integrated areas of study: culture, grammar, conversation, and composition. This course will strengthen the four skills through the review of basic grammar concepts and the introduction of new material needed for more precise communication. Attention will be given to the different French-speaking peoples. Emphasis is upon spoken, as well as written communication.

Honors French 4

Full Year / 5 credits

Prerequisite: French 3

French 4 is a course designed to further individual development of the essential communication skills. Written and oral proficiencies are emphasized. Students read and discuss short stories and selections from contemporary articles on topics of cultural interest. Grammar will be studied to facilitate accuracy of self-expression. Projects and other hands-on assessments are an integral part of the course.

Honors French 5

Full Year / 5 credits

Prerequisite: completion of French 4 Honors

This course is for the students who wish to continue studying the language and work on oral and written proficiencies. Assessments will be in the form of hands-on projects, as well as presentations and written assessments. Topics of cultural interest are studied and grammatical structures are reviewed to facilitate the communication skills of the students.

AP French Language and Culture

Full Year/5 credits

Prerequisite: French 4 Honors

This course offers the student advanced language learning, exploration of culture in both contemporary and historical contexts, and the development of literary analysis. Following a syllabus approved by the College Board, the AP French Language and Culture course centers on themes that integrate language, content and culture into an interrelated series of lessons and activities that promote the use of the language in a variety of contexts.

German 2

Full Year / 5 credits

Prerequisite: Completion of German 8 in middle school

German 2 further develops the basic language skills with emphasis on communication in the language, thus enabling students to apply what they have learned. Students are given the opportunity to continue with the progressive ability to communicate effectively in the new situations that are likely to be encountered in German speaking countries. Study of German culture is embedded in language practice.

German 3

Full Year / 5 credits

Prerequisite: German 2

Students have the opportunity to enhance the language skills learned in levels 1 and 2. Instruction is oriented towards the development of communicative functions and structures addressed in the previous levels. Students communicate meaning in realistic situations and carry out functions that are embedded with multicultural patterns found in the German language and traditions. Skills in the areas of listening, speaking, reading and writing the German language, as well as cultural understanding, are developed.

Honors German 4

Full Year / 5 credits

Prerequisite: German 3

This is a vigorous course designed for the serious student of German. German 4 provides students the opportunity to study the spoken and written language in greater depth. Videos, oral presentations and outside readings are a regular part of the course. Students will complete special projects designed to increase and demonstrate their German proficiency.

Honors German 5

Full Year / 5 credits

Prerequisite: Honors German 4

This course is for students who want to increase their language proficiency and continue their study of German culture. German 5 expands the skills acquired by students in German 4. Advanced grammatical structures needed to discuss, comprehend and compose are taught in context. Readings of works from German-speaking countries serve as a springboard for discussion and compositions. Students complete special projects designed to increase and demonstrate their German proficiency.

AP German Language and Culture

Full Year/5 credits

Prerequisite: Honors German 4

This course follows a syllabus approved by the College Board, and offers the student advanced language learning. Students will develop an understanding of the culture, incorporate interdisciplinary topics, and use the target language in real-life settings. The AP German Language and Culture course strives to promote both fluency and accuracy in language use.

Spanish 1

Full Year / 5 credits

The first year of Spanish language study concentrates on listening and speaking. Students attain good pronunciation skills and some ability to understand the language when simply and naturally spoken. Gradually, reading is introduced (in the form of dialogues and narratives), along with writing (generally in the form of exercises or short paragraphs). By the end of the first year, each student should acquire sufficient knowledge of grammar and basic vocabulary to understand and write simple narrative and guided expository paragraphs. Study of the Spanish language and Spanish-speaking cultures at this level of the program is infused through various aspects and methods.

Spanish 2

Full Year / 5 credits

Prerequisite: Spanish 1

This course is designed for students who have successfully completed Spanish 1. The second year of Spanish language study focuses on improving speaking, listening, reading, and writing skills. The course is taught predominantly in Spanish. Students attain good pronunciation skills and refine their ability to understand the language when naturally spoken. Students will improve reading skills with both fiction and non-fiction material. By the end of the second year, students should acquire sufficient knowledge of grammar and vocabulary to understand and write longer sentences and paragraphs on a variety of topics. The culture of Spanish-speaking countries is presented in the target language. Study of the Spanish language and Spanish-speaking cultures at this level of the program is infused with various aspects of technology such as Smart Boards, online textbooks, Video Streaming, Internet research/websites, etc.

Spanish 3

Full Year / 5 credits

Prerequisite: Spanish 2

The World Language Spanish 3 program is a course in which students become more aware of the Hispanic culture, increase their vocabulary and learn grammar that is more complex. Students learn to apply refinements in grammar and idiomatic expression orally and in written composition, leading to the use of authentic patterns of the language. Through practice and teacher-peer feedback, students learn to read with increased fluency, to comprehend and interpret more subtle and authentic materials, and to write more freely with progressive complexity. Cooperative learning activities encourage problem-solving skills while learning the language. Study of the contributions and the impact of the Hispanic community in the 21st-century promotes positive attitudes and a wider range of interest in ethnic diversity.

Spanish 4 Communications

Full Year / 5 credits

Prerequisite: Spanish 3

This course is a course designed for the students who have completed Spanish 3. Students will be introduced to complex grammatical constructions and a variety of conversational scenarios. Investigation of contemporary issues and current events will promote an amplified vocabulary and opportunities for debate and discussion. Short stories, one act plays, and poetry readings will strengthen skills in speaking and writing while advancing cultural knowledge.

Honors Spanish 4

Full Year / 5 credits

Prerequisite: Spanish 3

Spanish 4 Honors is a course that emphasizes proficiency in communication in Spanish as well as reflective thinking through the study of Spanish literature. The readings invite discussion of social issues that are aligned with the AP Spanish Literature and Culture Exam. An integration of the communicative approach with historical, cultural and creative projects generates connection with the Spanish language. Proficiency is fostered through the application of advanced grammar and vocabulary in both oral and written communication. Individual and class projects in interdisciplinary studies encourage problem-solving skills in contemporary society. Attention to conveying ideas correctly through presentations and essays is complemented by the use of telecommunications to promote global understanding.

Spanish 5 Communications

Full Year / 5 credits

Prerequisite: Honors Spanish 4 or Spanish 4 Communication

Students will aim to develop advanced proficiency in receptive and expressive skills through activities based on contemporary issues, current events, and daily life. Literature will be infused in the curriculum to promote analytical skills and cultural competency.

AP Spanish Language and Culture

Full Year / 5 credits

Prerequisite: Honors Spanish 4 or Spanish 4 Communications

This course emphasizes communication, incorporating interdisciplinary topics, service learning and cultural/historical issues. The class is taught almost exclusively in Spanish. Students develop strong writing and speaking skills in preparation for the AP Spanish Language and Culture exam.

AP Spanish Literature and Culture

Full Year / 5 credits

Prerequisite: Honors Spanish 4

This course is designed to prepare students for advanced proficiency in communication and literary analysis through a variety of college level activities and assignments. Students will complete the required syllabus for the exam in AP Spanish Literature by participating in a two-year reading program, commencing with the Honors Spanish 4 curriculum.

Spanish Communications and Culture 1

Full Year / 5 credits

By Referral Only

The basic Spanish communication skills in speaking, writing, listening and reading will be introduced and reinforced with an emphasis on speaking and listening. Students will learn vocabulary and structure through contextualized phrases and vocabulary. Language study will be supplemented with a study of the cultures of the Spanish-speaking world. Study of the Spanish language and cultures at this level of the program is infused with various aspects of technology such as Smart Boards, online textbooks, Video Streaming, Internet research/websites, etc.

Spanish Communications and Culture 2

Full Year / 5 credits

Prerequisite: Spanish Communications and Culture 1

This course is intended for students who have successfully completed Spanish Communications and Culture 1. The basic communication skills in speaking, writing, listening and reading will be reviewed and reinforced with an emphasis on speaking and listening. Students will be expected to communicate at the sentence level. Language study will be supplemented with a study of the cultures of the Spanish-speaking world. Study of the Spanish language and cultures at this level of the program is infused with various aspects of technology such as Smart Boards, online textbooks, Video Streaming, Internet research/websites, etc.



Social Studies Core Course Options: These courses count toward the graduation requirement in this subject area.

Grade Level	Courses	Credits
Grade 9	World Cultures Honors World Cultures	5
Grade 10	U.S. History 1 AP U.S. History Part 1	5
Grade 11	U.S. History 2 AP U.S. History Part 2	5

AP and Honors Placement

Students who have excelled in social studies and have achieved advanced proficiency in reading and writing may be recommended for placement in Honors/AP level classes. Honors World Cultures is available to our 9th grade students; a two-year AP U.S. History progression begins in 10th grade. Further AP options in the social studies are available for students who wish to take a fourth year of social studies.

Graduation Requirement

The New Jersey Department of Education (State Law) requires one year (5 credits) of world studies and two years (10 credits) of American studies. Four years (20 credits) is recommended for a stronger college preparatory program. Students fulfill the world studies requirement by taking World Cultures in their freshman year. Students fulfill the American studies requirement by taking U.S. History 1 in their sophomore year and U.S. History 2 in their junior year. (The AP U.S. History course progression will fulfill the American studies requirement.)

Financial/Economic Literacy

All Students must also complete a 2.5 credit Financial Literacy course to meet the graduation requirements for Financial/Economic Literacy. In lieu of Financial Literacy, students may also take Entrepreneurship to meet this requirement.

Course Title	Grade Level	Credits
Financial Literacy	10, 11, 12	2.5
Personal Financial Literacy	10, 11, 12	2.5

Social Studies Elective Courses: The following electives may be taken IN ADDITION to the required courses.

Course Title	Grade Level	Credits
Human Dynamics in Psychology	11, 12	5
AP Psychology	11, 12	5
Sociology	11, 12	5
Global Social Issues^A	11, 12	2.5
American Social Issues^A	11, 12	2.5
The Holocaust^A	11, 12	2.5
Genocide After WWII^A	11, 12	2.5
AP U.S. Government & Politics	11, 12	5
AP Modern European History	11, 12	5

^A -Offered in alternating years

Core Course Descriptions

World Cultures

Full Year / 5 credits

The course is offered at the college prep and honors level.

This course meets the state requirement of a one-year course in world history studies.

This is a full-year required course for all ninth graders. It satisfies the requirement for world cultures study at the high school level. Through the study of countries and cultures that have developed since the Middle Ages, interdependence of the world's people is demonstrated. This course emphasizes social studies skills, i.e., locating information, using maps, charts, and graphs, and writing on relevant topics. Emphasis is also placed on improving the students' critical reading, analytical writing, and public speaking skills.

Social Studies

Full Year / 5 credits

By Referral Only

This course teaches the student how the government is set up, how it works, and what we can expect government to offer us as well as what we can offer it. It also covers the history of the United States from Columbus to the present day. At the end of the year, the student has a better knowledge of the workings of government and insight into the reasons behind historical change.

U.S. History 1: America to 1920s

Full Year / 5 credits

This course satisfies 5 credits of the 10-credit state requirement in United States history studies.

Students investigate the significant events, political trends and social movements of United States history to 1920. Some of the topics are the American Revolution, Jeffersonian and Jacksonian democracy, westward expansion, the Civil War and Reconstruction, the growth of industrialization, the reforms of the Progressive Era, and World War I. Students are encouraged to analyze economic, political and social trends in American history and to relate these trends to events today.

U.S. History 2: America - The Roaring Twenties to the Present

Full Year / 5 credits

This course satisfies 5 credits of the 10-credit state requirement in United States history studies.

This course begins with the Roaring Twenties. The program includes study of The Great Depression, the New Deal, and causes of World War II. It also traces the historical, economic, political and social developments of America through The Cold War and into the 1980s. Special emphasis is placed on promoting a greater understanding of issues facing American Society today.

AP U.S. History Part 1

Full Year / 5 credits

This course satisfies 5 credits of the 10-credit state requirement in United States history studies.

This course is the first year of the two-year American History Advanced Placement Program. Students will study the development of institutions and political and social issues in the United States. AP U.S. History Part 1 covers American history from the Colonial period to the Reconstruction as well as an in-depth study of those periods and issues in United States history that have been critical to the formulation of the Republic as we know it today.

Several factors will be considered when determining eligibility for this two-year program, including, demonstrated performance on: previous year's state assessment, and AP diagnostic examination administered in 9th grade. In addition to these indicators, eligible students will be highly motivated; maintain a B+ average or higher in Honors World Cultures (or an A average in World Cultures); and must be diligent and capable of handling extensive independent reading and writing assignments.

AP U.S. History Part 2

Full Year / 5 credits

Prerequisite: Successful completion of AP U.S. History Part 1

This course satisfies 5 credits of the 10-credit state requirement in United States history studies.

This course is the second year of the two-year American History Advanced Placement Program. AP U.S. History Part 2 covers American History from the Reconstruction to the present with an in-depth study of the growing involvement of the United States in world affairs and the increasing complexity of domestic issues through the 20th century. Students have the option of taking the Advanced Placement United States History Exam in May of their junior year. We encourage students in this class to take the AP test, but we do not require it.

Financial Literacy

½ Year / 2.5 credits

This course satisfies the 2.5 credit Financial, Economic, Business, and Entrepreneurial Literacy requirement.

This course is designed for students who are interested in the development of small business, and who may decide to enter a business program at the college level. This course is designed to develop a better understanding of both personal and business finance. Throughout the semester, the students will delve into topics including an overall understanding of both

micro- and macroeconomics, financial constraints placed on small business owners, an individual's lifestyle goals and the financial needs to maintain their goals, types of credit and the impact that credit has on one's finances, the need to invest money wisely and plan for the future, how to be an aware consumer, the various kinds of real estate alternatives, how to remain financially healthy throughout one's lifetime, and the inner workings of the stock market. Additionally, this course will include a guest speaker series that encompasses different business owners from the community such as bankers, financial planners, realtors, insurance agents, and bankruptcy attorneys. When possible, the course will also enable students to observe small claims court hearings, to understand both sides of an argument that has led to litigation.

Personal Financial Literacy

½ Year / 2.5 credits

By Referral Only

This course satisfies the 2.5 credit Financial, Economic, Business, and Entrepreneurial Literacy requirement.

This course is designed to develop a better understanding of personal finance. Throughout the semester, the students will delve into topics including a more comprehensive understanding of an individual's life style goals and the financial needs to maintain their goals, types of credit and the impact that credit has on one's finances, the need to invest money wisely and plan for the future, how to be an aware consumer, the various kinds of housing alternatives, and how to remain financially healthy throughout one's lifetime. By the end of the semester, a portfolio of work will act as a resource for students as they proceed through their life. Additionally, this course will include a guest speaker series that encompasses different business owners from the community such as bankers, financial planners, realtors, insurance agents, and bankruptcy attorneys.

Elective Course Descriptions

Human Dynamics in Psychology

Full Year / 5 credits

Students may earn dual credit through Middlesex County College. There is a tuition cost to receive college credit.

This course is open to upperclassmen, and is designed to develop a better understanding of one's self and others. Through the process of scientific inquiry, students examine human behavior, development of personality, learning, problem-solving, abnormal psychology and issues in social psychology.

AP Psychology

Full Year / 5 credits

Students may earn dual credit through Middlesex County College. There is a tuition cost to receive college credit.

AP Psychology introduces students to the systematic and scientific study of human behavior and mental processes. While considering the psychologists and studies that have shaped the field, students explore and apply psychological theories, key concepts, and phenomena associated with such topics as the biological bases of behavior, sensation and perception, learning and cognition, motivation, developmental psychology, testing and individual differences, treatment of abnormal behavior, and social psychology. Throughout the course, students employ psychological research methods, including ethical considerations, as they use the scientific method, evaluate claims and evidence, and effectively communicate ideas.

Sociology

Full Year / 5 credits

Students may earn dual credit through Middlesex County College. There is a tuition cost to receive college credit.

This is an elective open to upperclassmen. The main objectives of this course are to offer a broader understanding of social interaction and the role of human groups in a post-industrial society. Social institutions, such as the family and education will be examined in connection with the current issues and social problems facing American society in the 21st century. Group activities, videos, and guest speakers will enhance the students' awareness of the importance of social and cultural changes.

Global Social Issues

½ Year / 2.5 credits

(Offered in alternating years – WILL NOT be available for 2021-22)

This is a semester elective course for students who are interested in developing a deeper understanding of issues that affect our global society. Content may include the dynamics of oppression, an introduction to social justice, taking action on social justice issues, child labor practices, educational empowerment, gender-based violence, and technology initiatives in third world nations. The course follows an interdisciplinary approach that enables students to build connections across subject areas, as well as gaining a deeper understanding of the world outside of their immediate experiences. This course is open to all juniors and seniors.

American Social Issues

½ Year / 2.5 credits

(Offered in alternating years – WILL NOT be available for 2021-22)

This is a semester elective that engages students in in-depth examinations of issues that affect the United States. Topics include the industrial food complex, class and poverty in America, and the American criminal justice system. Important components of the course include research, writing, and cooperative group projects.

The Holocaust

½ Year / 2.5 credits

Students may earn dual credit through Kean University. There is a tuition cost to receive college credit.

(Offered in alternating years – WILL be available for 2021-22)

This course seeks to dive deep and analyze, among other things, the various conditions that precipitated the rise of fascism in Germany, the remaking of German culture under Nazism, and the varying experiences of the Holocaust as it spread across national, cultural, and religious boundaries. Students will also examine the experiences of victims, perpetrators, bystanders, as well as those that resisted National Socialism. The course will tackle these subjects both from an historical perspective as well as through the lens of literature by using first person narratives. This course will address the Holocaust not as an historical anomaly, but as the consequence of unchecked prejudice. It will provide a platform to discuss issues of scapegoating, the dangers of conformity, and the importance of moral courage.

Genocide after World War II

½ Year / 2.5 credits

Students may earn dual credit through Kean University. There is a tuition cost to receive college credit.

(Offered in alternating years – WILL be available for 2021-22)

Despite the creation of the Universal Declaration of Human Rights as well as the 1948 UN Convention against Genocide, the world continues to struggle with the scourge of genocide. From the targeted destruction of the Aché in Paraguay, the state-sponsored persecution of Darfurians in Western Sudan, the ethnic cleansing in the Balkans, and the massacre of Tutsis in Rwanda, the preservation of global human rights remains elusive. *Genocide after World War II* will ask students to explore more contemporary examples of genocide and evaluate the degree to which the international community has lived up to its promise of “Never again.”

AP U.S. Government & Politics

Full Year / 5 credits

Prerequisite: None - Open enrollment for juniors and seniors

This is a full-year elective course open to upperclassmen interested in developing an analytical perspective on government and politics in the United States. Students will engage in the study of the U.S. Government system and delve into the analysis of specific case studies. Following the expectations set by the College Board; this course requires a familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality.

AP Modern European History

Full Year / 5 credits

Prerequisite: None - Open enrollment for juniors and seniors

This challenging program is a study of Europe’s political, religious, economic, cultural, and social history from the Renaissance through the present. Through analysis of primary sources, students are familiarized with a variety of interpretations of specific events. This course is also designed to prepare students for the AP examination in European History in May.



Math Core Course Options: These courses count toward the graduation requirement in this subject area.

The student who *has demonstrated outstanding achievement and successfully completed Algebra 1 and Geometry* in the middle school:

Grade Level	Course Sequence
9	Honors Algebra 2
10	Honors Pre-Calculus
11	AP Calculus AB/BC
12	Honors Calculus 3

The student who *has demonstrated outstanding achievement and successfully completed Algebra 1* in the middle school:

Grade Level	Course Sequence 1	Course Sequence 2
9	Honors Plane & Solid Geometry	Plane Geometry
10	Honors Algebra 2	Algebra 2
11	Honors Pre-Calculus	Pre-Calculus
12	AP Calculus AB or AP Calculus AB/BC	Honors Calculus

The student who *has taken Math 8 or Pre-Algebra* in the middle school or who **needs a review of algebraic principles**:

Grade Level	Course Sequence
9	Algebra 1
10	Plane Geometry
11	Algebra 2
12	Pre-Calculus

Graduation Requirement

The New Jersey Department of Education requires three years of math (15 credits), including Algebra I (or the content equivalency), Geometry (or the content equivalency), and a third year of mathematics that builds on the concepts and skills of algebra and geometry and that prepares students for college and 21st century careers. Four years (20 credits) is recommended for a stronger college prep program.

Math Elective Courses: The following math electives may be taken IN ADDITION to the core courses.

Course Title	Grade Level	Credits
AP Computer Science	10, 11, 12	5
Computer Programming in Java	9, 10, 11, 12	5
Web Programming	9, 10, 11, 12	2.5
Python	9, 10, 11, 12	2.5
AP Computer Science Principles	9, 10, 11, 12	5
AP Statistics	11, 12	5
Honors Calculus 3	12	5
Math Investigations	12	2.5
Discrete Math	12	2.5

Core Course Descriptions

Algebra 1

Full Year / 5 credits

Students will explore, investigate and discover the concepts and skills of algebra; they will communicate many of these ideas mathematically. Most concepts are developed and applied to problem situations using a variety of strategies. Because abstractions are an integral part of algebra and because students derive their ideas from their experiences, students will experiment on a concrete level to develop an understanding of algebraic symbols and concepts.

Plane Geometry

Full Year / 5 credits

Prerequisite: Algebra 1

Students analyze deductive proofs using definitions, assumptions, and theorems in logical sequences. Geometric and algebraic principles are applied to practical construction problems, congruence and similarity of triangles, and areas of geometric figures. Texts, models, and a variety of instructional materials are used. Students should have a thorough knowledge of solving and graphing of linear equations before entering this course.

Honors Plane and Solid Geometry

Full Year / 5 credits

Prerequisite: Outstanding achievement in Algebra 1 in eighth grade

Students who have major academic interests in mathematics and have demonstrated superior ability in the field are encouraged to take Plane and Solid Geometry in the ninth grade. Problems involving spatial visualization are stressed and students learn the importance of precision language. Deductive reasoning is used extensively and algebraic skills are strengthened. Principles of plane, space and coordinate geometry are introduced.

Algebra 2

Full Year / 5 credits

Prerequisite: Algebra 1 and Plane Geometry

Algebra 2 is a sequential course following successful completion of Algebra 1 with a concentration on solving practical and theoretical problems. Students develop an understanding of the structure of the real number system, recognize the technique of algebra as reflections of this structure, apply algebraic skills and concepts, demonstrate precision of language, and use the function concept in mathematics.

Honors Algebra 2

Full Year / 5 credits

Prerequisite: Exceptional achievement in Algebra 1 and Hon. Plane & Solid Geometry

Honors Algebra 2 is a sequential course following successful completion of Algebra 1 with a concentration on solving practical and theoretical problems. Students develop an understanding of the structure of the real number system, recognize the technique of algebra as reflections of this structure, apply algebraic skills and concepts, demonstrate precision of language, and use the function concept in mathematics. Honors Algebra 2 is designed for students who have superior ability in mathematics. Precision in mathematical language is emphasized as students analyze systems of real and complex numbers.

Pre-Calculus

Full Year / 5 Credits

Prerequisite: Plane Geometry and Algebra 2

Pre-calculus is a sequential course following successful completion of Algebra 2 concentrating on deepening understanding of functions, algebraic and geometric concepts. Topics include complex numbers, polynomial functions, rational functions, exponential functions, logarithmic functions, trigonometric functions, trigonometry, vectors and sequences. The graphing calculator is used regularly along with web-based applications.

Honors Pre-Calculus

Full Year / 5 credits

Students may earn dual credit through Middlesex County College. There is a tuition cost to receive college credit.

Prerequisite: Plane & Solid Geometry and Honors Algebra 2

Students will investigate the basic concepts of Trigonometry and Coordinate Geometry and progressions. Introductory work is covered in permutation and combinations; probability, statistics, logic, and real functions are covered extensively.

Honors Calculus

Full Year / 5 credits

Prerequisite: Pre-Calculus

This is a full year, college preparatory course. Mathematical models are used to interpret physical phenomena and to predict the outcomes of related experiments. Students learn limits and derivatives and apply differential and integral calculus to practical problems.

AP Calculus AB

Full Year / 5 credits

Prerequisite: Honors Pre-Calculus

This is the first year in the AP Calculus sequence, and it is roughly equivalent to the first semester of calculus in the freshman year of college. The course follows the curriculum published by the College Board. Topics include limits, derivatives, integration, and applications of derivatives and integrals in various fields. A primary focus throughout the year is preparation for the AP Exam. It is recommended that students own a graphing calculator, which the class uses regularly. Topics covered after the AP Exam vary depending on student interest.

AP Calculus AB/BC

Full Year / 5 credits

Prerequisite: Honors Pre-Calculus

Calculus AB/BC is a college-level mathematics course designed to challenge the talented, motivated math student. The curriculum is equivalent to two semesters of calculus in the freshman year of college. The course follows the AP curriculum published by the College Board. Topics include limits, derivatives, integration techniques, improper integrals, elementary differential equations and polar, parametric and vector equations. A primary focus throughout the year is preparation for the AP exam.

Honors Calculus 3

Full Year / 5 credits

Prerequisite: AP Calculus BC

Students may earn dual credit through Seton Hall University. There is a tuition cost to receive college credit.

Calculus 3 is a multivariable Calculus, equivalent to a typical college-level sophomore course. The course extends the ideas introduced in Calculus BC to three dimensions. Topics covered include vector geometry, the calculus of vector-valued functions, differentiation in several variables, multiple integration, line and surface integrals and fundamental theorems of vector analysis.

Algebra 1A, Algebra 1B

Full Year / 5 credits

Principles of Geometry, Math Explorations - By Referral Only

These courses are credited toward the Mathematics requirement for graduation.

The objective of these classes is to improve mathematical computation and problem solving skills as they relate to algebra and geometry. For the first two years the focus will be on algebraic concepts while the third year targets the main concepts of Plane Geometry. In the fourth year students will explore various math topics, including financial literacy and statistics. Curriculum is based on the specific strengths and weaknesses of each class member and is approached in terms of individualized lessons.

Elective Course Descriptions

AP Computer Science Principles

Full Year / 5 Credits

Prerequisite: Algebra 1

This course satisfies the practical arts requirement.

This course is an introductory college level course for students curious about careers in computer science. AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. The course instructs students in the basics of computer science to build problem-solving skills and establish foundational concepts for any career. This course prepares students for the AP Exam.

Web Programming

½ Year / 2.5 credits

Prerequisite or Co-requisite: Algebra 1

This course satisfies the practical arts requirement.

This course is useful for students interested in computer careers, as well as those interested in careers in engineering, science and mathematics. It should be interesting for anyone who wants to go beyond using already-written software and write some software of his/her own. Students create web pages with HTML. Students then add interactivity to their web pages with JavaScript. Finally, students learn to create web graphics, animated GIFs and image maps using GIMP. Students will have some latitude in choosing which areas they focus on.

Python

½ Year / 2.5 credits

Prerequisite or Co-requisite: Algebra 1

This course satisfies the practical arts requirement.

This course is useful for students interested in computer careers, as well as those interested in careers in engineering, science and mathematics. It should be interesting for anyone who wants to go beyond using already-written software and write some software of his/her own. Python is a popular, easy to learn, computer programming language used for web development, robotics, Cyber Security, and artificial intelligence. This course will introduce students to fundamental computer science concepts while offering interesting and fun programming challenges. Programming concepts used will include sequences, decisions, iteration, graphics (including Turtle graphics), graphical user interface elements (e.g. buttons), and simulations.

Computer Programming in Java

Full Year / 5 credits

Prerequisite or Co-requisite: Algebra 1

This course satisfies the practical arts requirement.

This course is useful for students interested in computer careers, as well as those interested in careers in engineering, science and mathematics. It should be interesting for everyone who wants to go beyond using already-written software, and write some software of his/her own.

Java has been one of the top programming languages for the past 20 years and is widely used in the business world to build desktop applications and web systems. This course offers a full-year introduction to problem solving on the computer using the Java language. Students will write a variety of programs including problem-solving, analysis of data, simulations of real-world situations and games. Programming topics covered include input/output, IF statements, loops, classes and objects, methods, strings, files, arrays, recursion, and sorting and searching. Use of an integrated-development environment allows students to see visual output from their programs. It is suggested that students take Computer Programming in Java prior to taking AP Computer Science.

AP Computer Science A

Full Year / 5 credits

This course satisfies the practical arts requirement.

This course offers a study of programming equivalent to one year of college level computer science. Topics include interfaces and inheritance. We also study data structures: arrays and array lists, stacks, queues, linked lists, sets and trees, and basic operations on these data structures. Other topics include recursion and advanced sorting and searching techniques. We completed the three labs (a solitaire game, natural language processing, and digital image processing) that the College Board introduced in 2014. This challenging but interesting course prepares students for the AP Computer Science A Exam. The language used is JAVA. It is suggested that students take Computer Programming in Java prior to taking AP Computer Science.

AP Statistics

Full Year / 5 credits

Prerequisite: Algebra 2

This course introduces students to major concepts and tools for collecting, analyzing and drawing conclusions from data. Students are exposed to four themes: exploring data, sampling and experimentation, anticipating patterns and statistical inference. Important components of the course include the use of technology, cooperative group problem-solving and writing. This approach allows students to build interdisciplinary connections with other subject areas as well as the world outside of school. This course prepares students for the AP Statistics exam.

Math Investigations

½ Year / 2.5 Credit

Prerequisite: Algebra 2

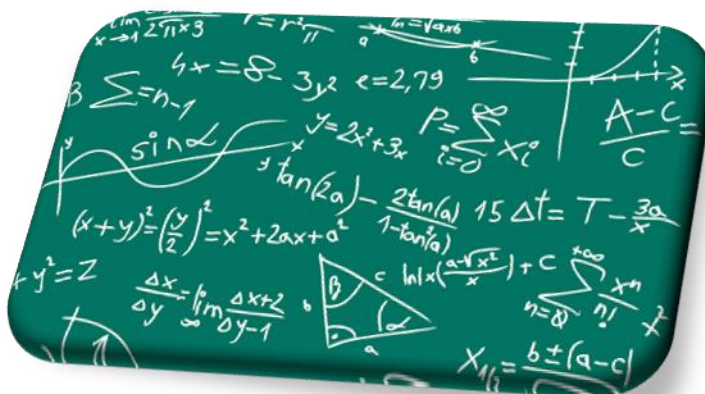
This senior course is designed to further investigate topics previously studied in Algebra 1, Geometry and Algebra 2 with the emphasis on their recreational and every day applications. Topics will include inductive and deductive reasoning, number sequences, functions and their graphs and number representations. Hands-on activities, group and individual projects will be incorporated into the curriculum as a means of assessment and to further strengthen their understanding of mathematics as it pertains to everyday living.

Discrete Math

½ Year / 2.5 Credit

Prerequisite: Algebra 2

This senior course is designed to address topics not covered or addressed only lightly in traditional math classes. It is an introduction into areas of mathematics that most students have never thought of before. In this course, the topics have a step-by-step nature rather than a continuous one. This course stresses the connection between contemporary math and modern society. The curriculum content includes symmetry, mathematical curves, methods of counting and chance, introduction to statistics, and topics in topology. Everyday applications of these topics will be included in the daily activities of the class.



Science

Kathleen Henn - Supervisor

Science Course Options All science courses are college preparatory laboratory courses and may count toward satisfying the graduation requirement in this subject area. The following sequences offer students a balanced science program. Students demonstrating a high degree of success may move to a more challenging sequence, especially for senior year. With few exceptions, students will take a biology course during their 9th grade year and a chemistry course during their 10th grade year. We strongly recommend students take a physics course during their 11th grade year, although this is not required.

The **Honors sequence** is for students with exceptional ability who demonstrate a high aptitude for abstract and challenging thinking. It prepares students for further studies in science at more competitive colleges.

Grade Level	Course Title	Credits
9	Honors Biology	6
10	Honors Chemistry	6
11	AP Physics 1, AP Biology, AP Chemistry, AP Env. Science, Honors Health Science	6
12	AP Physics 1, AP Physics 2, AP Biology, AP Chemistry, AP Env. Science, Honors Health Science	6

The **Modern sequence** encourages critical thinking and scientific applications. It prepares students who may wish to pursue further studies in science at the college level.

Grade Level	Course Title	Credits
9	Modern Biology	6
10	Modern Chemistry	6
11 or 12	Modern Physics and Modern Environmental Science	6
12	Honors Health Science or AP Environmental Science	6

Graduation Requirement

The New Jersey Department of Education requires three years of science (15 credits), including at least five credits in laboratory biology/life science or the content equivalent, five credits of chemistry, environmental science, or physics and five credits in one additional laboratory/inquiry-based science course. Four years (20-24 credits) is recommended for a stronger college prep program. Students are required to participate in a state science assessment at the conclusion of grade 11.

Course Descriptions

Honors Biology

Full Year / 6 credits

Prerequisite: Algebra I

The course addresses all levels of biological organization from the molecular and cellular level to the organism in its environment. Weekly labs are designed to investigate the biological concepts discussed in class. A series of major themes sets the foundation for the course: structure and function; matter and energy in organisms and ecosystems; interdependent relationships in ecosystems; inheritance and variation of traits; and natural selection and evolution. Students who have demonstrated strong abilities in science are encouraged to take Honors Biology as a first-year science course.

Modern Biology

Full Year / 6 credits

This college preparatory laboratory science course is designed to give the student an understanding of the fundamental concept of living phenomena. The concepts are investigated from the level of the cell to the organism and subcellular levels. Further investigation will include the study of heredity, the development of single-celled organisms and an involved study of more complex organisms. Text, multimedia materials, and models will be used extensively. Specific groups of organisms are studied in the laboratory to illustrate the principles of living structures, function, and adaptation through dissection and collections of various familiar organisms. Investigations and observation are stressed through laboratory experiments.

Honors Chemistry

Full Year / 6 credits

Prerequisite: Honors Biology with grade of B- or better

Co-requisite: Algebra 2 or Honors Algebra 2

The Honors Chemistry program is designed for students who have demonstrated competence and ability in science and math. All aspects of traditional chemistry are incorporated into the course, theory is emphasized, and the discovery approach to laboratory work is encouraged. Opportunities for application will be provided. After successful completion of Honors Chemistry, students should be well prepared for subsequent study in the sciences.

Modern Chemistry

Full Year /6 credits

Prerequisite: Modern Biology

This college preparatory laboratory science course is designed to acquaint students with the fundamental concepts of chemistry. Labs are used to develop many common laboratory techniques as well as investigate the principles discussed in class. Students study basic structure of matter, changes in matter and the relationship of energy in these changes. The course also addresses chemistry applications within earth science and life science. Real world applications are emphasized, including opportunities for engineering challenges, analysis of global and space systems, and problem-based learning related to human impact on the earth's environment. The Chemistry course is intended to prepare students for further study at the college level. It also addresses many topics of interest to students in their future roles as citizens in an advanced global society.

Modern Physics

Full Year / 6 credits

Prerequisite: Modern Chemistry and Geometry

This college preparatory laboratory science course is designed to acquaint students with the fundamental concepts of physics. Labs are used to investigate and develop many of the principles discussed in class, and student lab design is an important aspect of the course. Students study forces and motion, force fields, planetary motion and gravity, energy and its conservation, the physics of the Earth's geosphere, wave properties, electromagnetic radiation and its practical applications, static electricity and electromagnetism. Real world applications are emphasized, including opportunities for engineering challenges, analysis of global issues relating to course topics, and investigating the physics behind current technologies. The Physics course is intended to prepare students for further study at the college level. It also addresses many topics of interest to students in their future roles as citizens in an advanced global society.

AP Biology

Full Year / 6 credits

Prerequisite: Honors Chemistry, Honors Biology, Algebra 2 with grades of B- or better

AP Biology is a college-level course designed to challenge students to extend their knowledge of biological theory and processes beyond the level of introductory science classes. The course addresses one of the fundamental issues in biology education: how to integrate analytical themes with immense amounts of factual data. Throughout the year, students are encouraged to explore such themes as the relationship between structure and function; the regulation of biological processes; the intimate relationship of biology, chemistry and physics; evolution; energy transfer; continuity and change; the interdependence of plants, animals and their environment; and the place of technology in the world of biology. The course includes a required laboratory component consistent with the AP Biology curriculum. It is intended that the students will take the AP Biology exam at the end of the course. Students should be prepared for a rigorous college-level course, requiring a significant commitment of time and effort, both during and outside the course.

AP Chemistry

Full Year / 6 credits

Prerequisite: Honors Chemistry, Honors Algebra 2 or Algebra 2 with grades of B- or better

The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. Students in the course will attain a depth of understanding of fundamentals and a reasonable competence in dealing with chemical problems. The course will contribute to the development of the students' ability to think, speak and write with clarity and logic.

The course differs from the usual first secondary school course in chemistry with respect to the kind of textbook used, the topics covered, the emphasis on chemical calculations and the mathematical formulation of principles, and the kind of laboratory work done by students.

AP Chemistry is designed to be taken only after the successful completion of a first course in high school chemistry. It is highly desirable that a student has completed a course in secondary school physics and be enrolled in a fourth year of a college preparatory program in mathematics as well. It is intended that the students will take the AP Chemistry exam at the end of the course. Students should be prepared for a rigorous college-level course, requiring a significant commitment of time and effort, both during and outside the course.

AP Physics 1

Full Year / 6 credits

Prerequisite: Honors Chemistry; grades of B- or better in honors level science and math

Co-requisite: Pre-Calculus or Hon. Pre-Calculus, or more advanced math course

This is an algebra-based college level physics course intended for the advanced science-oriented student who has demonstrated strength in laboratory science and mathematics. It will focus on Newtonian mechanics, including the study of linear and rotational motion in two dimensions, forces, momentum, and energy. An introduction to electric circuits is also included. This course includes a required laboratory component consistent with the AP Physics I curriculum, including laboratory activities, experimental design, and data analysis. It is intended that students will take the AP Physics I exam at the end of the course. Students should be prepared for a rigorous college-level course, requiring a significant commitment of time and effort, both during and outside the course. This course is intended as an honors level first year Physics course.

AP Physics 2

Full Year / 6 credits

Prerequisite: AP Physics 1; grades of B- or better in honors level science and math

Co-requisite: Honors Pre-Calculus or more advanced course

This is an algebra based college level physics course intended for the advanced science-oriented student who has demonstrated strength in the laboratory sciences and mathematics. It will focus on the electricity topics of Electrostatics, DC and RC circuits, and Electromagnetism. Other topics include Fluid Statics and Dynamics, Thermodynamics, Optics, and Modern Physics (quantum, atomic and nuclear physics). This course includes a required laboratory component consistent with the AP Physics II curriculum, including laboratory activities, experimental design, and data analysis. It is intended that students will take the AP Physics II test at the end of the course. Students should be prepared for a rigorous college-level course, requiring a significant commitment of time and effort, both during and outside the course. This course is intended as a second year physics course following AP Physics I.

Honors Health Science (formerly Honors Advanced Studies in Biology & Chemistry)

Full Year / 6 credits

Prerequisite: Honors Biology and Honors Chemistry, or supervisor recommendation

Honors Health Science is a course designed to serve students who are interested in extending their knowledge of life science and chemistry as it applies to human health. Specific topics of study include human anatomy and physiology, pathology, chemistry related to physiology, cell biology, body systems, diseases and public health. The methodology of the course includes a lecture/discussion format with an integrated program of laboratory investigations (physical and virtual), case studies and research into current health issues. The course is intended to prepare students for further study at the college level.

Modern Environmental Science

Full Year / 6 credits

Prerequisite: Modern Biology or Honors Biology and Honors or Modern Chemistry

This college preparatory laboratory science course places primary emphasis on the development of an understanding of some general principles of ecology and man's involvement in the environment. The first half of the course focuses on Ecology, which is a study of ecosystems where the relationship between living and non-living factors is emphasized. The second half of the course focuses on environmental science, which is a study of how humans affect and are affected by the ecosystem in which they live. Students will engage in problem solving processes targeting environmental issues in an interdisciplinary approach. Topics covered include: Ecosystems, population ecology, food webs, forestry, air pollution,

agriculture, human population, and aquatic ecology. Labs, films, current events articles, computer programs and simulations supplement the text. Knowledge of biology is necessary to fully understand course material.

AP Environmental Science

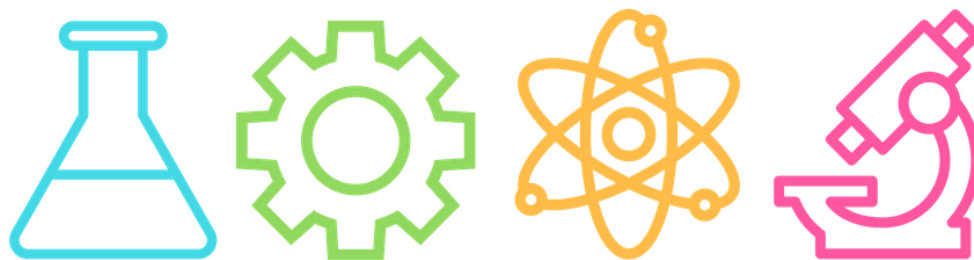
Full Year / 6 credits

Prerequisite: Algebra, Modern Biology or Honors Biology, and Chemistry

The AP Environmental Science course is designed to be the equivalent of a college level course in the topic. The aim of the course is to provide students with the scientific principles, concepts and methodologies required to understand the interrelationship of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

AP Environmental Science is an interdisciplinary lab course; it embraces a wide variety of topics from different subject areas of study. The course will emphasize the following unifying themes: science is a process, energy conversions underlie all ecological processes, the Earth is one interconnected system, humans alter natural systems, environmental problems have a cultural and social context, and human survival depends on developing practices that will achieve sustainable systems.

The course is designed to be taken after successful completion of courses in biology, chemistry and algebra; a prior course in environmental science is not necessary. Students should be prepared for a rigorous college-level course, requiring a significant commitment of time and effort, both during and outside the course. It is intended that the students will take the AP exam at the end of the course.



Graduation Requirement

The New Jersey Department of Education requires 5 credits in visual or performing arts. *All courses in this department satisfy the visual and performing arts requirement for graduation.*

Visual Arts

Course Title	Grade Level	Credits
Art I – Intro to Art	9, 10, 11, 12	5
Art II – 2D	10, 11, 12	2.5
Art II – 3 D	10, 11, 12	2.5
Honors Art III – Portfolio Development	11, 12	5
Honors Art IV	11,12	5
AP Art and Design	12	5
AP Art and Design (Double)	12	10
AP Art History^A	11,12	5
Photography/ Digital Media 1	9, 10, 11, 12	2.5
Photography/ Digital Media 2	9, 10, 11, 12	2.5

^A -Offered in alternating years

Course Descriptions

Art I-Introduction to Art

Full Year / 5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

This course is an introduction to materials and techniques commonly found in the world of fine art. As an elective subject, it is meant to give students an opportunity for creative self-expression while developing skills and learning the language of art. Students will gain an understanding of the relationship of art to society by actual participation in its creation. Themes will include drawing from observation, live figure drawing, painting, printmaking, and sculpture. This course is a prerequisite to Art II. Each student will be assigned a sketchbook in which to create and submit assignments.

Photography/ Digital Media 1

½ Year/ 2.5 Credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

In this course, students will be introduced to photography as an art form and become familiar with compositional choices of photography through the artist’s eye. Students will use Photoshop to digitally manipulate images for both artistic and graphic design purposes. They will use the elements and principles of design to create original works of art on the computer and learn the various tools available to the photographer for art and business. The applications to career paths make this course eligible for Practical Arts credit. Applicable careers include: Graphic Designer, Web Design, Photographer, Photojournalist, Fashion Design, Advertising, Marketing, and Artist.

Photography/ Digital Media 2

½ Year / 2.5 credits

Prerequisite: Photography/Digital Media 1

This course satisfies the visual & performing arts or the practical arts elective requirement.

In this course, students will expand on the skills learned in Photography/Digital Media 1 and become a master of compositional choices and editing through the medium of photography. This course takes a student centered, choice driven approach in order to maximize engagement and deeper understanding. Students will sharpen their digital editing skills through the use of independent projects and then be encouraged to share their knowledge and skills with their peers. The applications to career paths make this course eligible for Practical Arts credit. Applicable careers include: Graphic Designer, Web Design, Photographer, Photojournalist, Fashion Design, Advertising, Marketing, and Artist.

Art II – 2 D

½ Year / 2.5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art I

This course reinforces the skills established in Art I, with an emphasis on the organizational strategies of the elements of art and principles of design. Students explore their creativity and skill building through a wide range of 2D art media such as drawing, painting, charcoal, ink, pastels, and printmaking. Students will use various technology tools for research and idea development. Each student will be assigned a sketchbook in which to create and submit assignments through Google Classroom.

Art II – 3 D

½ Year / 2.5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art I

This course reinforces the skills established in Art I, with an emphasis on the organizational strategies of the elements of art and principles of design. Students explore their creativity and skill building through a wide range of 3D art media, such as ceramics, sculpture, and mixed media. Students will use various technology tools for research and idea development. Each student will be assigned a sketchbook in which to create and submit assignments through Google Classroom.

Honors Art III – Portfolio Development

Full Year / 5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art II

Students are provided an opportunity to express their individuality through drawing with various media, painting, printmaking, and sculpture. Students are encouraged to express their own personality while gaining advanced skills and a greater depth of understanding through experimentation. Student projects include creative open-ended assignments as well as a number of student choice assignments. Each student will be assigned a sketchbook in which to create and submit assignments.

Honors Art IV

Full Year / 5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art III

Honors art is an advanced art class for students who wish to pursue the upper levels of the art program but do not necessarily have intentions to apply to an art school. Students will complete advanced level projects in drawing, painting, and printmaking. They will be able to work collaboratively on large scale projects and tailor them to their interests and possible career choices. Students should be prepared to work on a more independent level and must have completed Art III with at least a B average.

AP Art and Design

Full Year / 5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art III

This is an advanced art class designed for students who expect to apply to an art school and submit a portfolio for the AP exam. Students will follow a custom concentration for the entire year, creating multiple pieces of art in various materials exploring the same theme as per the AP guidelines. Students will work independently, similar to a college level studio course and will have greater creative freedom on how to execute each project. Each student will have a digital portfolio by the end of the year reflective of this exploration. This course is by recommendation only for those who have completed Art III.

AP Art and Design (Double Period)

Full Year / 10 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Art III

This is an advanced art class which consists of two periods of AP Studio designed for students who expect to apply to an art school and submit a portfolio for the AP exam. Students will follow a custom concentration for the entire year, creating multiple pieces of art in various materials exploring the same theme as per the AP guidelines. Students will work independently, similar to a college level studio course and will have greater creative freedom on how to execute each project. Each student will have a digital portfolio by the end of the year reflective of this exploration and the larger work load of assignments consistent with an extra studio period. This course is by recommendation only for those who have completed Art III.

AP Art History

Full Year / 5 credits

(Offered in alternating years – (WILL NOT be available for 2021-22)

This course satisfies the visual & performing arts or the practical arts elective requirement.

Prerequisite: Open enrollment to Juniors and Seniors

AP Art History is the equivalent of a college level introductory Art History course, presenting a diverse range of historical and cultural contexts of painting, sculpture, architecture and mixed media. This course will provide an arena for visual analysis, depth of historical and geographical knowledge, and the opportunity to make informed opinions about artists, movements, and the quality of their work. This course requires a high degree of commitment to academic work, with an emphasis on independent research and writing assignments outside of the classroom. In addition, interactive activities and collaborative projects will provide a deeper understanding of the artistic challenges and processes throughout world history. This course prepares students to take the accompanying course examination in May.



Performing Arts

Course Title	Grade Level	Credits
Band	9, 10, 11, 12	5
Orchestra	9, 10, 11, 12	5
Concert Choir	9, 10, 11, 12	5
Music Technology	9, 10, 11, 12	5
Music in American History^A	9, 10,11,12	2.5
Music in Modern America^A	9, 10,11,12	2.5
Music Foundations^A	9, 10,11,12	2.5
Musical Theater^A	9, 10,11,12	2.5
AP Music Theory^A	11, 12	5

^A -Offered in alternating years

Course Descriptions

Band

Full Year / 5 credits

The Band is a performing organization that engages in a variety of musical presentations throughout the year. Participation in the organization is designed to improve musical skills, provide exposure to a variety of historical and musical styles, and acquaint the student with the American band tradition.

Required performances each year include school and community concerts and local parades. Each student is also encouraged to elect from a variety of co-curricular activities to enhance his or her musical experiences. These include Marching Band and Color Guard, Jazz Ensemble and the Musical Orchestra. In addition, a variety of smaller ensembles such as Clarinet Choir, Brass Choir, Sax Ensemble and Percussion Ensemble are part of the curriculum. The Band students may also be invited to participate in local or out-of-state music festivals.

Orchestra

Full Year / 5 credits

The Orchestra is a performing organization in which students improve their individual performance and ensemble techniques. The Orchestra meets five days a week (four days with strings only and one day as a full symphonic orchestra with select wind, brass, and percussion students). Both groups explore symphonic literature from the 17th century to the present. The Orchestra performs on a variety of occasions including festivals, concerts for elementary schools, and concerts for community groups at the High School. Periodically, the group makes trips to New York City to see special exhibits and attend concerts and rehearsals of major musical organizations.

Concert Choir

Full Year / 5 credits

The Concert Choir is a performing organization with emphasis on choral ensemble work, advanced development of vocal skills through representative works of choral literature, stress part-singing, tonal blend, and interpretation. The literature is composed of selections from the Renaissance to the present day. Choir participants sing at scheduled performances throughout the year, as well as football games, pep rallies, community and school events and state festivals. They join together with the Choral Club for additional performances throughout the community.

Music Technology

Full Year / 5 credits

This course satisfies the visual & performing arts or the practical arts elective requirement.

This course is designed for the student interested in creating music on the computer. Students should have a strong interest and some background in music. Students will arrange and compose music, and learn the latest recording techniques. Students will maintain a digital portfolio and collaborate with other students for performance.

Music in American History

½ year / 2.5 credits

(Offered in alternating years – WILL be available for 2021-22)

This course satisfies 2.5 credits of the 5-credit visual & performing arts requirement.

This course provides students with a non-performance based music option. This course will cover the beginnings of American music from colonization through the end of World War I. Through listening and reflection exercises, students will be exposed to the rich diversity of styles and cultural influences that founded American music. Topics range from, but are not limited to, African American music, American Indian music, gospel music, folk songs, and the beginnings of popular music, theater, and dance. Students will be challenged to take historic and literary perspectives being taught in other disciplines at the high school and make relevant connections.

Practical Arts

Kathleen Henn - Supervisor

Graduation Requirement

The New Jersey Department of Education requires 5 credits in practical arts. *All courses in this department can satisfy the practical arts requirement for graduation as long as a total of 5 credits have been taken.*

Family and Consumer Sciences

Course Title	Grade Level	Credits	Tier
Foods & Nutrition	9, 10, 11, 12	5	I
American Foods	10, 11, 12	2.5	II
International Foods	10, 11, 12	2.5	II
Food Science	11, 12	5	III
Meal Service Management	12	5	IV
Drafting/Computer Aided Design	9, 10, 11, 12	5	
Engineering & Technology	9, 10, 11, 12	5	
Digital Graphics 1	10, 11, 12	2.5	
Digital Graphics 2	10, 11, 12	2.5	
Woodworking	9, 10, 11, 12	5	
Robotics	9, 10, 11, 12	5	

The foods courses are offered as a sequence, beginning with Foods & Nutrition as Tier I, American Foods and/or International Foods as Tier II, Food Science as Tier III, and culminating in Meal Service Management as Tier IV. Students may take any number of courses in the sequence, but the Tiers must be taken in order.

Course Descriptions

Foods & Nutrition

Full Year / 5 credits

This course is designed to introduce students to basic food concepts, nutritional and meal planning. Students learn the basics of kitchen management, food preparation techniques, and food service with a dietary context of the preparation based on sound management of budget, time, skill level, and nutritional content. Advanced techniques in food preparation and a complete understanding of food values are emphasized. Students complete multiple hands-on assignments involving full meal preparation (soups, salads, appetizer, garnishes, main dishes, and desserts). Students are provided with an evaluation sheet for each food item prepared covering the following areas: texture, flavor, and overall appearance. In addition to individual prepared foods, evaluations are provided for visual effect/aesthetic value in table setting and overall presentation. Potential careers in the field of food service and culinary art are explored through classroom discussions, lectures, and guest speakers. The growing evidence of the importance of a proper diet to health is basic to this course. Students utilize laboratory equipment, including microwave ovens and computers. A short research project or food exhibit stressing visual and aesthetic concepts is required in the spring semester. Materials include reference text, computer programs, instructor-developed handouts, equipment manuals, video presentations, recipe books, food literature and basic food text.

American Foods

½ Year / 2.5 credits

Prerequisite: *Foods & Nutrition*

This course is devoted to the study of food in the context of culture, history and geography. Meal patterns, preparation techniques, food traditions of the American continent and many of the countries that contributed to the immigrant population of the United States are explored. Students research and discuss factors that influence the food and diet of the United States, along with studying national, geographical, political, and cultural aspects of cuisine. The focus is regional American Cookery and the expanding literature on this subject. Students (individual and small groups) are evaluated on preparation and finished product for flavor, texture, appearance and visual effect. Table presentations of complete meals are also evaluated for detail and aesthetic value. A research project related to food traditions in the United States and other countries

is a course requirement. Materials include reference books, company-prepared and instructor-developed handouts, videos, learning guides, equipment and manuals.

International Foods

½ Year / 2.5 credits

Prerequisite: *Foods & Nutrition*

This course is devoted to the study of food in the context of culture, history and geography. It involves students in the major cuisine areas of China, France, Italy, etc. Students learn the vocabulary of international and regional cooking and prepare and present multiple meals typical of all areas. Students (individual and small groups) are evaluated on preparation and finished product for flavor, texture, appearance and visual effect. Table presentations of complete meals are also evaluated for detail and aesthetic value. A research project related to food traditions in the United States and other countries is a course requirement. Materials include reference books, company-prepared and instructor-developed handouts, videos, learning guides, equipment, and manuals.

Food Science

Full Year / 5 credits

Prerequisite: *Foods & Nutrition and either American Foods or International Foods*

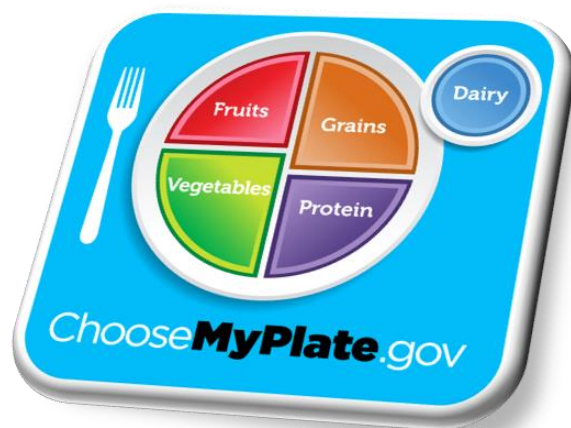
Food Science focuses on science through the interesting and accessible area of food. Students utilize a scientific approach to both food preparation and evaluation. Basic chemical and physical science form the foundation upon which student's experiment with the components of food and food preparation. The complex area of nutrition is addressed through the study of nutrients, human metabolism, and nutrient analysis. Students analyze their individual diets and activity levels with the aid of a computer. All projects regarding food presentation and study are evaluated for accuracy, appropriate research, methods and sensory appeal. Laboratory experimentation involves a major science project or research paper, which becomes an integral part of the program.

Meal Service Management

Full Year / 5 credits

Prerequisite: *Food Science*

This course is designed for students interested in the food service industry as a career. Students develop skills applicable to employment in food service, food science, hospitality or other related careers. Students will be introduced to management practices, workplace safety, meal preparation and market strategies. Students are required to complete two main projects. One project is a marketing project; the other is an educational project. Students are expected to perform a demonstration, prepare bulletin boards or display cases, and complete a workbook on professional cookery. Students must be able to work independently, propose projects, and work toward a goal.



Family and Consumer Sciences (continued)

Course Descriptions

Drafting/Computer Aided Design (CAD)

Full Year / 5 credits

This course is designed for students desiring skills and knowledge in the areas of drafting as it applies to engineering, industry, design and art. Skills are developed in lettering, two, three, four and five view drawings as well as three dimensional drawings using equal and unequal angles, graphic solutions, spacing and dimensioning. Students will also be introduced to computer aided drafting skills and concepts, and will use them to design items they will print using a 3D printer. Upon completion of Drafting 1, students will have the proper graphic communication skills to complete further studies in the design construction engineering field.

Engineering & Technology

Full Year / 5 credits

This course is designed to help students understand and apply technology presented in an engineering context. It describes the engineering design process and how it is used to solve technological challenges. Units of study include Communication Engineering and Design, Energy and Power, Construction, Transportation, and Bio-Related Engineering and Design. Students will work in teams as well as individually.

Digital Graphics 1

½ Year / 2.5 credits

This course investigates the use of computer-graphic software programs for the purpose of design, visualization, and presentation. The course investigates the inherent differences between raster and vector graphics and how to use a variety of computer graphics programs such as Gimp, Sketch Up, Publisher, and Power Point to achieve a desired end result. This lab-based course provides technical illustration in Gimp and Sketch Up.

Digital Graphics 2

½ Year / 2.5 credits

Prerequisite: Digital Graphic Design 1

This course is an introductory lecture/laboratory course on the applications and rendering of architectural or mechanical materials and textures. Students will be required to design and document (modeled and rendered) a building, a manufactured component or an architectural component, of medium complexity entirely within the digital medium.

Woodworking

Full Year / 5 credits

This course is designed to provide students with a thorough background in furniture design and construction. Students develop key mathematical concepts for wood construction and hands-on skills necessary for improving their competencies in the area of design and cost analysis. All laboratory projects require blueprint submission and instructor evaluation for visual effect. Each project is assigned a grade at various stages for proper construction details, and the completed project is evaluated in the areas of workmanship, adherence to blueprint design and overall aesthetic value. Materials include basic text, supplementary manuals, hand/power tools, and construction supplies.

Robotics

Full Year / 5 credits

In this course students will collaboratively use the engineering design process to build robots capable of completing specific tasks. Tasks will require students to creatively design robots, construct them, program them, test them and then refine them in an iterative cycle of design. Students will learn about various technologies used in robotics design including electronics, electric circuits, motors, pneumatics, mechanical systems, communication systems, etc... They will also learn about the various ways robots and robotics are used in manufacturing, medicine, adaptive support, emergency services and other applications. This course will fulfill the graduation requirement for one year of practical arts.



Business Courses

Course Title	Grade Level	Credits
AP Microeconomics^A	11, 12	5
AP Macroeconomics^A	11, 12	5
Entrepreneurship	9, 10, 11, 12	5
Business Information Management	9, 10, 11, 12	2.5
Digital Marketing	9, 10, 11, 12	2.5

^A -Offered in alternating years

Course Descriptions

AP Microeconomics^A

Full Year / 5 credits

(Offered in alternating years – WILL be available for 2021-22)

AP Microeconomics is an introductory college-level course that focuses on the principles of economics that apply to the functions of individual economic decision-makers. The course also develops students' familiarity with the operation of product and factor markets, distributions of income, market failure, and the role of government in promoting greater efficiency and equity in the economy. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. It is intended that the students will take the AP Microeconomics exam at the end of the course. This course is open to Juniors and Seniors. Students should be comfortable with reading a college-level textbook and have good mathematics and graphing skills. It is intended that this course will run every other year, alternating with AP Macroeconomics.

AP Macroeconomics^A

Full Year/ 5 credits

(Offered in alternating years – WILL NOT be available for 2021-22)

AP Macroeconomics is an introductory college-level course that focuses on the principles that apply to an economic system as a whole. The course places particular emphasis on the study of national income and price-level determination; it also develops students' familiarity with economic performance measures, the financial sector, stabilization policies, economic growth, and international economics. Students learn to use graphs, charts, and data to analyze, describe, and explain economic concepts. It is intended that the students will take the AP Macroeconomics exam at the end of the course. This course is open to Juniors and Seniors. Students should be comfortable with reading a college-level textbook and have good mathematics and graphing skills. It is intended that this course will run every other year, alternating with AP Microeconomics.

Entrepreneurship

Full Year / 5 credits

Prerequisite: Algebra 1

This course may satisfy the 2.5 credit Financial, Literacy requirement or the Practical Arts requirement.

This course will address a variety of topics relevant to business, including identifying market needs, developing a business plan, implementing strategies for production of goods or services, financing, accounting, financial statements, marketing, etc. Opportunities for application will be provided, and may include business competitions or small business development. This course is open to students in Grades 9-12 who have completed Algebra 1.

Business Information Management

½ Year /2.5 credits

This course will address a variety of topics relevant to the technology aspects of business, including use of spreadsheets (beyond beginner level), marketing software (advanced uses of Word and other similar software) and data management. Opportunities for application will be included. This course is open to students in Grades 9-12.

Digital Marketing

½ Year /2.5 credits

This course will address a variety of topics relevant to the technology aspects of business marketing, including website design, desktop publishing, blogging and use of a variety of social media. Authentic application opportunities will be an integral part of the course. Ethical use of intellectual property will also be addressed. This course is open to students in Grades 9-12.



Career Education

Dr. Tania Herzog- Supervisor Special Services

Metuchen Internship Learning Experience (MILE) *By Referral Only*

**Full Year / 5 credits or
10 credits for 2 periods**

MILE encompasses school-based classroom instruction and community-based instruction (CBI), providing students with career awareness and exploration to meet their post-secondary goals. Students make connections between their personal lives, classroom experiences, and their community-based experiences. Students are immersed in authentic, real-world settings.

Through job shadowing and job sampling internships, students gain first-hand knowledge and experience in a variety of careers. They further learn entrepreneurial skills by managing a class business with activities that utilize computers and various software applications.

Students are scheduled in a double period time block. At the inception of the program, instructors guide students in assessing career interests and help plan their academic-based community program. Students participate between three and four days each week in community activities and work closely with employees in their area of interest. When not “on the job,” students meet with their instructors to review work experiences, acquire job search skills, and to participate in the classroom-operated business.

Health Education

Grade 9 Health: Physical and Emotional Growth and Development

One Marking Period/ 1 credit

This course is designed to give students a more complete understanding of their physical and emotional sexuality. It is a course in which they will gain an understanding of how to make informed decisions in the process of managing their environments. This course presents clear, accurate information on the life cycle, adult relationships, family planning and pregnancy. Emphasis is placed on helping students to prepare to cope with interpersonal relationships and with the stress of current social issues.

Grade 10 Health: Driver Education - Classroom Theory

One Marking Period/ 1 credit

This classroom theory phase of driver education is designed to develop the student's understanding of traffic rules and regulations, car care and maintenance, road courtesies expected of an informed driver and substance abuse as it relates to driving.

Grade 11 Health: A Practical Approach to Wellness

One Marking Period/ 1 credit

This course develops a basic understanding of the body's ability to reach its physiological capacity through proper nutrition, exercise, and conditioning. In addition, the course develops a basic understanding of physical, social, and emotional concepts as they relate to family living. The course explores the relationship between responsible health practices and behavior.

Grade 12 Health: Preparing for Independence

Seniors who are taking a Science Course

One Marking Period/ 1 credit

Seniors not taking Science Course

One Marking Period/ 1.25 credits

This course is designed to prepare students for adulthood. Students will have the opportunity to explore concepts involving personal growth and development as it relates to an understanding of preparedness for situations and issues that they will face as adults. Readiness includes the responsibilities that accompany adult choices, decisions, and actions as they relate to First Aid, personal safety, relationships, parenting, financial obligations, sexual adjustments, aging, death and dying. Students will participate in CPR and AED training which will result in a certification in both areas.

Physical Education

Physical Education

3 Marking Periods/ 3 credits

Seniors not taking a Science Course

3 Marking Periods/ 3.75 credits

Physical Education is offered at each grade level. Classes meet 5 times a week, once a day. In the physical education program students actively elect and participate in a variety of physical activities. The activities help the student to attain, improve, and maintain physical fitness. They develop agility, balance, cardiovascular endurance, flexibility, and strength. The program provides opportunities for skill development in lifetime recreational sports. It also provides instruction in the strategies and playing rules of team sports and experiences in a variety of individual and dual activities. In all three facets of the program the development of sportsmanship is emphasized.

Activities may include:

Lifetime Sports	Badminton, Fitness Training, Ultimate Frisbee, Frisbee, Golf and Aerobics
Team Sports	Field Hockey, Soccer, Flag Football, Softball, Baseball, Basketball, Volleyball, Scoops, Lacrosse, and Speedball
Dual/Individual Activities	CrossFit Training, Pickle Ball, Project Adventure, Aerobics and various recreational games

Unified Physical Education

3 Marking Periods/ 3.75 credits

The Bulldog Peer Assisted Well-rounded Skills (P.A.W.S.) Unified Physical Education class includes a select group of seniors and juniors from the general education population that apply for the course and are chosen to take P.A.W.S. as their PE course. These students work together with students with intellectual disabilities toward a unified purpose in a safe, non-judgmental environment. All of the students are afforded an incredible opportunity to learn from each other through physical activities, while socializing, creating friendships and having fun.

Students guide each other through various aspects of Physical Education, working on physical skills as well as role modeling proper social skills. The students work to enhance communication and socialization during class and help integrate all students into the general high school community.

