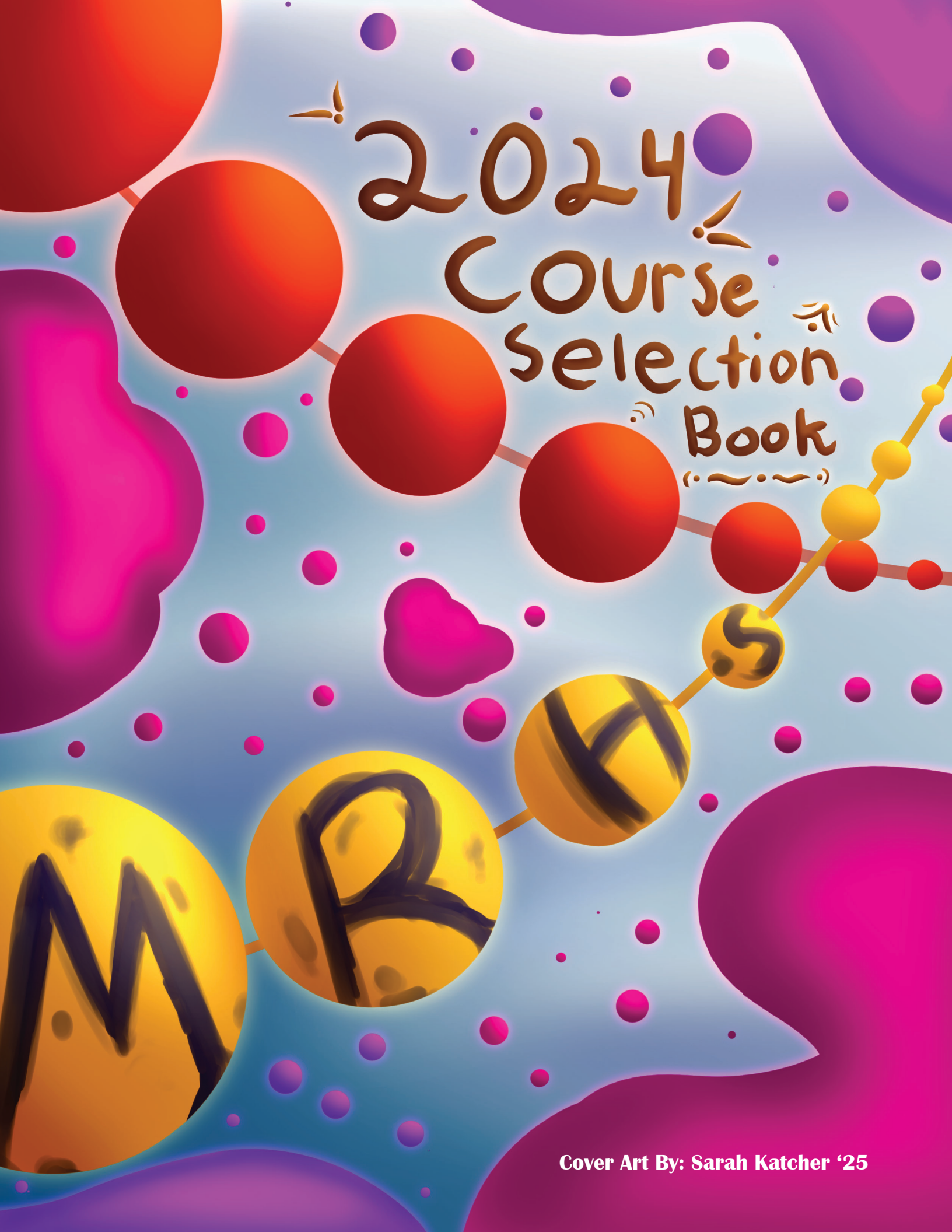
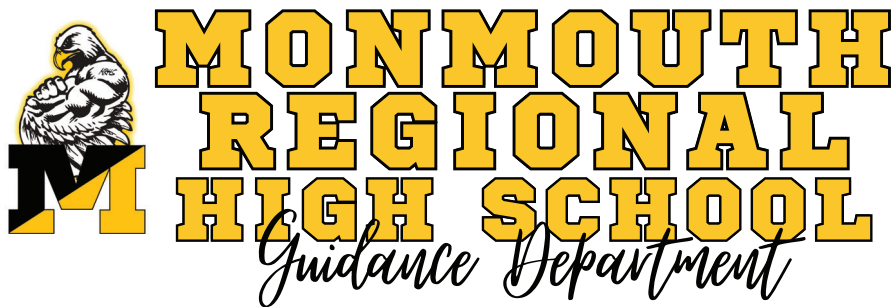




2024 Course Selection Book

Cover Art By: Sarah Katcher '25



How to Select Your Electives:

- 1) Log into your Genesis Parent Portal account
- 2) Click on the Scheduling Tab
- 3) The first screen will show courses that have been recommended for you by your current teachers
- 4) Click on REQUESTS to make your elective requests. Students should select 4 elective courses. Courses are listed under their departments. *You won't be able to request courses that are already recommended for you by your current teachers.*
- 5) To request an elective, click ADD and assign a priority number to it, 1-4. Your top choice for elective should be listed as 1. *If you want to request a course a teacher recommended you for, keep it in mind for your scheduling meeting.*
- 6) After requesting your electives, then request your scheduling meeting with your counselor. This is found under the Conferences tab.

The scheduling portal opens for students on January 22nd and will close on February 4th.

Scheduling meetings will be held February 6th until February 16th. Students will be able to make request changes up until February 16th.

COURSE SELECTION HANDBOOK

2024 - 2025

A planning guide to the courses of study
at Monmouth Regional High School

TABLE OF CONTENTS

Introduction	5
College Board's Capstone Diploma Program.....	7
Business Academy.....	8
Performing Arts Academy.....	9
STEAM Academy.....	10
High School Aviation Program.....	12
Applied Technology	
Business.....	14
Family & Consumer Sciences	15
Art.....	17
Industrial Arts.....	18
English	20
Mathematics	22
Music	25
Physical Education/Health	26
Science	27
Social Studies	29
Special Education.....	32
World Languages	33
ESL (English as a Second Language).....	36
Individual Worksheet/Electives	39

The program planning process will enable students, with the assistance of school counselors, parents and teachers, to build an annual educational program that meets their requirements for graduation, while addressing their needs, interests and abilities. Whether a student is entering MRHS from the eighth grade, is currently in attendance, or is transferring from another school, the basic steps in the suggested planning process remain the same.

- Familiarize yourself with the course description book. Complete the graduation requirement worksheet on page for an outline of which courses interest you.
- Recommendations from current teachers guide academic placement. Student/parent discuss and enter elective choices into Genesis during specific course selection timeframe.
- Counselors examine recommendations, class performance and prerequisites and make any needed adjustments to course requests.
- Schedules are available at the end of the summer. Please note that alternate course selection should be done carefully. In the event that an original course or sequence of courses can not be scheduled, alternate courses will be used. In some instances, courses may not run due to low enrollment.

ELECTIVES WITHOUT PENALTY

Juniors and Seniors have the option of taking the electives without penalty of a lower grade point average. In order to be eligible, students must have (1) fulfilled the graduation requirement of one year of Visual and Performing Arts, one year of a Practical Art, and Financial Literacy per graduation requirements; (2) secured parental approval; and (3) applied for this option within two weeks after the beginning of school in September. Grades would count towards achieving honor roll status and fulfilling the athletic eligibility requirement, but would not be included in the grade point average. Students and parents should discuss the advisability of such action with their school counselor.

MONMOUTH REGIONAL HIGH SCHOOL

EATONTOWN SHREWSBURY TOWNSHIP TINTON FALLS

ONE NORMAN J FIELD WAY, TINTON FALLS, NEW JERSEY 07724

732-542-1170 FAX: 732-542-5815

www.monmouthregional.net

BOARD OF EDUCATION

Jonathan Cohen, President
Barbara Van Wagner, Vice President
James Convery
Joseph Bruccoleri
Anthony Gaetano
Mary Ann Linder
Daniel Deitz
Alex Vervoort
Ketsia Beaubrun

ADMINISTRATION

Brian Evans, Chief School Administrator x1147
Maria Anne Parry, SBA/Board Secretary x1106
Sal Spampinato, Assistant Principal x1179
Kathleen Mihalko, Assistant Principal x1164
Amy Kelly, Director of Guidance/Health Services x1130
Anthony DeOrio, Director of Athletics x1104
Corey McCook, Director of Special Services x1162

SUPERVISORY STAFF

Kathleen Mihalko
Victoria Mercogliano
Anthony DeOrio
Ted Wardell
Corey McCook

Applied Technology and Music x1164
English, Social Studies, World Languages and ESL x1123
Health, Physical Education and Safety x1104
Mathematics and Science x1136
Special Services x1162

SCHOOL COUNSELORS

Daniel Rapcienski x1178
Karin Blumetti x1215
Katie Toole x1166
Kristen Irwin x1168
Teresa DiMezza x1129

CHILD STUDY TEAM MEMBERS

Beth Sullivan x1134
Christine Rivera x1161
Debbie Spence x1173
Ryan Wolff x1169
Vincent Balestrieri x1182

Affirmative Action: It is the policy of Monmouth Regional High School District not to discriminate on the basis of race, color, creed, religion, sex, ancestry, national origin, physical handicap, or social or economic status in its educational program, activities or employment practices. All courses listed in this publication are open to each and every student, except where academic prerequisites are noted.

INTRODUCTION

This Course Selection Handbook for MRHS is designed to be used as a planning guide to the wide variety of required and elective courses across all disciplines. All departments offer both required and elective courses. A full listing of electives may be found under each department.

Students at MRHS are required to take a **full program of studies** for each of their four years. Students are allowed only one full study hall with parental written permission. The promotion policies are as follows: A student may advance from 9th to 10th grade in class standing if he/she successfully completes 25 credits; from 10th to 11th grade with 50 credits; and from 11th to 12th grade with 85 credits.

GRADUATION REQUIREMENTS:

In order to receive a diploma from MRHS a student must earn 120 credits in the following areas:

- Four years of **English** including **English I-IV**
- Four years of **Health, Physical Education/Safety** at least 3.75 credits per year in physical education, health and safety during each year of enrollment. Distributed at 150 minutes per week.
- Three years of **Social Studies**, including **World History, U. S. I and II**
- Three years of **Mathematics** including **Algebra I** and **Geometry** and a third year of Math that builds on the concepts from Algebra I and Geometry
- Three years of **Science** including **Lab Biology, Lab Chemistry** and/or **Physics** or **Environmental Science**, plus a third laboratory/inquiry based science
- One year of **World Language**
- One year of **Visual and/or Performing Arts**
- One year of **Practical Arts**
- 2.5 credits of **Financial Literacy**
- **15 credits** of Electives
- **State Testing or alternative graduation requirements as defined by the state.**
- **NOTE:** These graduation requirements are the minimum needed for high school graduation and may not fulfill the requirements for admission to 4 year colleges.

CLASS RANK

Monmouth Regional believes that class rank does not represent the hard work and dedication that students display daily. Class rank will no longer be reported. If rank is required by a specific college or scholarship program, the school counselor will be notified.

MONMOUTH REGIONAL ATHLETIC ELIGIBILITY:

An integral part of a student's education at MRHS involves participation in the extracurricular and/or athletic programs. It should be noted that participation in sports is contingent upon satisfactory academic performance. Monmouth Regional follows the guidelines set forth by NJ-SIAA. A student athlete must have passed 30 credits for the year to participate in athletics for the fall/winter seasons and must be passing 15 credits for the spring season.

COURSE LEVEL KEY

AP: Advanced Placement
VA: Visual Art
H: Honors
PA: Performing Art
FL: Financial Literacy
PRA: Practical Art
CCR: College and Career Ready
NCAA: Core Academic Course

COURSE CHANGES

(Permitted only until February 16, 2024)

1. The school master schedule is built upon careful and deliberate on-time course selections made by students. During the course selection process, every effort should be made by students, parents and teachers to ensure that the courses selected are appropriate for the students.
2. **Alternate course selections should be made very carefully. In the event that an original elective choice or a particular combination of courses can not be scheduled, alternate courses will be used. Substitutions can not be made after the course selection deadline.**
3. Any changes made after the master schedule is built adversely affects the enrollment balance of classes. For this reason, no course changes will be made after February 16, 2024, except if: there is an error or omission in data entry, course level change due to a change in academic achievement, summer school attendance or a student's schedule is missing a graduation requirement.
4. **Add/Drop Period will take place the first two weeks of school. Any student wishing to drop a course after this time period will need to seek the approval of the department supervisor prior to meeting with your school counselor.**

COURSE LEVEL CHANGES

Level changes will be made on a space available basis. It is understood that the student may be responsible for any missed work in the class, including the summer assignment since the grade will not carry to the new course. Movement to a lower level will be permitted within the same guidelines. Changes will not occur within the first 7 days of school to allow teachers the ability to review the summer assignments and also give the students the opportunity to discuss their difficulties with the course with the teacher.

WITHDRAWAL PASSING/FAILING

The following procedures will occur in the event that a student wishes to drop a class:

1. A student can withdraw from a course, without penalty, within the first marking period.
2. Once the second marking period begins, if a student would like to drop a course they would be given a study hall and the course would appear on their transcript as a Withdrawal Pass (WP) or Withdrawal Fail (WF) (depending on their current grade) and 0.00 credits would be earned. GPA would not be affected.
3. A withdrawal after second marking period will only be approved under extreme, documented circumstances. Requesting a late withdrawal due to the following will not be honored:
 - a. a low grade in the class
 - b. lack of interest in the subject matter
 - c. having a different learning style from that of the teacher

Please note that extenuating documented circumstances, substantiated by both a letter to and meeting with the principal is needed prior to a decision being made. If approved, student will receive a WP or WF depending on student's grade at time of withdrawal.

NCAA DIVISION I OR II ELIGIBILITY FOR INTERCOLLEGIATE ATHLETICS

A sliding index scale which includes SAT/ACT scores and a specific grade point average in core academic courses determines eligibility. For your information these core courses are indicated by the designation of (NCAA) after the course name. Students will need 16 core courses in order to meet the first criteria for eligibility, then the sliding index scale can be applied. More specific information regarding MRHS's core courses and the index scale can be found on the web at <http://www.ncaa.org>.

Monmouth County Vocational School Shared Time Program

Shared-Time programs provide an opportunity for students to enroll in a career and technical education course while attending their home high school. The shared-time classes are a half-day in length and the student continues with their regular course of study at their home high school the other half of the day. Most programs consists of two years of study in which the student learns skills that will qualify them for entry-level jobs or prepare them for further education in their chosen career and technical education field. In addition, the students will learn workplace readiness skills and may participate in clinical experiences, shadowing experiences, or work-based structured learning.

The application process begins January of sophomore year. If accepted, students will begin attendance junior year. Please talk with your counselor if you are interested in learning more about these programs. Shared time programs include; Applied Mechanical Engineering, Allied Health, Automotive Technology, Carpentry, Commercial Art, Cosmetology, Culinary Arts, Dental Assistant, Diesel Mechanics, Electricity, HVAC, Marine Trades, Nursing Assistant, Patient Care/Medical Assistant, Plumbing & Pipefitting, and Welding. Please visit the Monmouth County Vocational School Shared Time website at <https://www.mcvsd.org/programs/shared-time-overview/>

SENIOR YEAR OPTIONS

Did you know that if you are a senior and have already accumulated at least 100 credits and reached proficiency on state testing that you can leave school early to either attend Brookdale Community College or go to work? Please discuss these options with your counselor. Requirements are as follows:

Brookdale Community College

1. Accumulation of at least 100 credits earned at MRHS
2. Proficiency on current state testing requirements
3. Attend MRHS for two consecutive block periods
4. Proficiency on the Brookdale placemet test, or equivalent SAT section
5. Approval/signature of your guidance counselor
6. Please visit the following website to read Brookdale's full requirements: <https://www.brookdalecc.edu/fast-start/>
7. Transcript will read Off Campus Brookdale Community College



BROOKDALE
COMMUNITY COLLEGE

Co-operative Marketing/Structrued Learning Experience

This program allows students the opportunity to participate in one of two off campus experiences: Cooperative Work Experience or Structured Learning Experience. The full course description can be found on page 15.

COLLEGE BOARD'S AP CAPSTONE DIPLOMA PROGRAM

WHAT ARE AP COURSES?

- The Advanced Placement Program enables a willing and academically prepared student to pursue college-level studies while in high school. Many colleges offer credit for qualifying scores.
- AP students learn essential time management and study skills needed for college and career success that help you stand out among your peers.
- All students who are willing to accept the challenge of a rigorous academic curriculum are considered for admission to AP courses.

WHAT CAN AP COURSES AND AN AP CAPSTONE DIPLOMA DO FOR YOU?

AP Capstone is a nationally recognized and prestigious diploma program from the College Board that is offered to the students of Monmouth Regional High School. We are one of three districts to offer this program! It is based on two yearlong AP Courses (AP Seminar and AP Research) taken during the sophomore and junior years or during junior or senior years. Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma™. Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams will receive the AP Seminar and Research Certificate™. Additional AP Exams are taken at any point throughout high school.

AP SEMINAR

[GRADE 10, 11]

5 CR.

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquire framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

AP RESEARCH

[GRADE 11, 12]

5 CR.

AP Research, the second course in the AP Capstone experience, allows students to deeply explore an academic topic, problem, issue, or idea of individual interest. Students design, plan, and implement a yearlong investigation to address a research question. Through this inquiry, they further the skills they acquired in the AP Seminar course by learning research methodology, employing ethical research practices, and accessing, analyzing, and synthesizing information. Students reflect on their skill development, document their processes, and curate the artifacts of their scholarly work through a process and reflection portfolio. The course culminates in an academic paper of 4,000-5,000 words (accompanied by a performance, exhibit, or product where applicable) and a presentation with an oral defense.

Prerequisite: AP Seminar

**Completing AP Seminar and all its required assessment components is necessary for students to develop the skills to be successful in AP Research*

AP Capstone Curriculum

AP Capstone Diploma™

Students who earn scores of 3 or higher in both of the AP Capstone courses and on four additional AP Exams of their choosing will receive the AP Capstone Diploma™.

AP SEMINAR (Year 1)

Team Project & Presentation

Research-Based Essay & Presentation

End-of-Course Exam

AP RESEARCH (Year 2)

Research Process Documentation

Academic Thesis Paper

Presentation & Oral Defense

4 AP COURSES & EXAMS

(Taken at any point throughout high school)

AP Seminar and Research Certificate™

Students who earn scores of 3 or higher in both of the AP Capstone courses but not on the four additional AP Exams will receive the AP Seminar and Research Certificate™, signifying successful performance in those courses.

BUSINESS ACADEMY

The Monmouth Regional Business Academy is open to students of all academic backgrounds who wish to develop into curious and skilled young people who aspire to become successful members and leaders of the future business world. The Business Academy provides students with a variety of courses where students will explore financial and/or social business skills. Participants will complete a Business Capstone Experience within their desired area of business. Our programs strive to create students who are self-motivated, competent, life-long learners who will be comfortable as they embark on the fast-paced, ever changing business world. Possible dual-enrollment opportunities in certain courses (earn college credits). Opportunity to join the National Business Education Honor Society for qualified students.

Business Academy Supervisor: Mrs. Mihalko

How to Enroll in the Business Academy:

- Inform your guidance counselor and/or business teacher of your interest in joining the Business Academy
- Review Academy course requirements with your guidance counselor or Business teacher(s)

How to Complete the Business Academy Program

- Maintain a C or better in a minimum of 5 Business Academy courses
- Complete the Business Academy Capstone Experience at some point in your high school career

The Business Academy Capstone Experience

The Business Academy Capstone Experience is titled as such, as the concept is to have an experience, not necessarily a project. The Business Academy Capstone Experience is broadly defined as participation in some event related to one's chosen area of business that requires time and effort beyond one's normal coursework. Possible Capstone Experiences are, but not limited to:

- Regional/State/National Contest Participation
- Conference/Workshop Attendance
- Academic Summer Program
- Job Shadowing/Internship
- Business Academy students are encouraged to seek out their desired Capstone Experience, including new ideas

Grade 9	Grade 10	Grade 11	Grade 12
English I	English II	English III	English IV
PE/Health	PE/Health	PE/Health	PE/Health
World History	US History I	US History II	
Algebra I	Geometry	Algebra II	
Biology	Chemistry	Science	
World Language			
Intro to Business			

Intro to Business (Required)	Digital Business Tools & Technology	Digital Business Tools & Technology	Digital Business Tools & Technology
Digital Business Tools & Technology	Accounting	Accounting	Accounting
	Marketing Education	Marketing Education	Marketing Education
	Sports & Entertainment Marketing	Sports & Entertainment Marketing	Sports & Entertainment Marketing
		Business Law & Ethics	Business Law & Ethics
		Business Finance Seminar	Business Finance Seminar
		Stocks & Financial Markets	Stocks & Financial Markets
		AP Economics	AP Economics
		AP Calculus	AP Calculus
		AP Statistics	AP Statistics
			Cooperative Marketing
			Structured Learning Experience/Internship



PERFORMING ARTS ACADEMY

The Monmouth Regional High School Performing Arts (PAA) Program will provide a hands on and specialized curriculum to young artists with an interest in the fields of Acting, Vocal Studies, Musical Theater Performance and Theater Tech and Stagecraft. This small learning community is designed for students who want to combine a college preparatory academic schedule with advanced arts training in a traditional high school setting. The Monmouth Regional High School Performing Arts Program will serve students from 9th - 12th grade. Students will take performance and history -based classes. Students produce and perform in a number of showcases and are encouraged to participate in the numerous arts and other extracurricular programs offered at Monmouth Regional. Interested students will take PAA electives beginning in their freshman year. Specific materials/supplies may need to be purchased by parent/guardian. The PAA will allow students to continue involvement with the high school experience, while preparing them for an outstanding college experience and a successful career.

Performing Arts Academy Supervisor: Mrs. Mihalko

Grade 9	Grade 10	Grade 11	Grade 12
English I	English II	English III	English IV
PE/Health	PE/Health	PE/Health	PE/Health
World History	US History I	US History II	
Algebra I	Geometry	Algebra II	
Biology	Chemistry	Science	
World Language	World Language		

Band/Chorus/Guitar Techniques	Band/Chorus/Guitar Techniques I or II	Band/Chorus/Guitar Techniques I or II	Band/Chorus/Guitar Techniques I or II
History of American Popular Music	History of American Popular Music	History of American Popular Music	History of American Popular Music
Music Appreciation	Music Appreciation	Music Appreciation	Music Appreciation
Music Theory	Music Theory	Music Theory	Music Theory
Musical Theater Performance	Musical Theater Performance	Musical Theater Performance	Musical Theater Performance
Music Production & Technology	Music Production & Technology	Music Production & Technology	Music Production & Technology
Broadway 101: Musical Stagecraft	Broadway 101: Musical Stagecraft	Broadway 101: Musical Stagecraft	Broadway 101: Musical Stagecraft
	AP Music Theory	AP Music Theory	AP Music Theory
			Performing Arts Academy Senior Experience



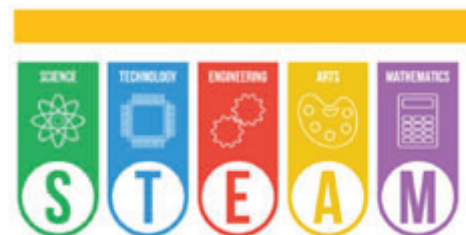
STEAM ACADEMY

The Monmouth Regional STEAM Academy is open to students of all academic backgrounds who wish to develop into curious and skilled young people and who aspire to be principled and compassionate leaders. The STEAM Academy will provide students with the experiences, skills, and values required for the 21st Century workforce. Students can choose a personalized pipeline with concentrated coursework in a Science, Technology, Engineering, Arts, or Mathematics discipline. Participants will be assigned a mentor who will support them in completing the required coursework and a Capstone experience within their chosen concentration. Our programs strive to create students who are self-motivated, creative, competent, life-long learners who will be comfortable with research, experimentation, and investigating questions they will face throughout their career.

STEAM Academy Supervisor: Dr. Wardell

Benefits of STEAM Education

- Provide an “edge” for those students interested in pursuing STEAM fields in college or careers
- Career outlooks for STEAM fields predict high growth
- STEAM Mentor. Students will be provided with a faculty member who will support the student by recommending courses that align with future goals, coordinating support when needed to maintain Academy requirements, notifying the student of scholarship, internship, job, and Capstone opportunities, and providing a recommendation from someone who has known the student over a number of years
- Opportunities to participate in STEAM enrichment activities
- The potential for professional certification, credentials, and/or experience
- A community of peers with similar interests



STEAM Academy Coursework Requirements: All students in the Academy must take all courses needed to satisfy graduation requirements, four years of math and science, and eight STEAM courses, at least four of which are related to their chosen area of concentration.

Example STEAM Academy Concentrations and Electives

Computer Science Computer Science I Computer Science II AP Computer Science Principles AP Computer Science Electronics Data Science & Machine Learning Introduction to Graphic Arts Introduction to Economics	Engineering Engineering Graphics & Computer Modeling Architecture Electronics Classical & Quantum Computing Robotics AP Physics Calculus Introduction to Business	Science/Healthcare Dynamics of Healthcare Anatomy & Physiology Forensics Biotechnology Foundations of Art Introduction to Business Vocational Course Vocational Course
Mathematics Calculus The Art of Problem Solving Probability & Statistics Data Science & Machine Learning AP Computer Science Principles Introduction to Business Approved extra-curricular course Foundations of Art	Game Design Engineering Graphics & Computer Modeling Game Design Virtual Production Computer Science I AP Computer Science Digital Media & Animation I Music Appreciation Introduction to Economics	Graphic Design Foundations of Art Advanced Art Introduction to Graphic Arts Digital Media & Animation I Digital Media & Animation II Introduction to Business Engineering Graphics & Computer Modeling Approved Co-op/ Structured Learning Experience

STEAM ACADEMY

How to Enroll in the STEAM Academy

- Inform your guidance counselor, math/art/science/technology teacher, or Dr. Wardell of your interest in joining the STEAM Academy.
- Design a pipeline of coursework around your chosen concentration and enroll in the appropriate course. (Assistance will be provided by your guidance counselor and STEAM Academy mentor.)

How to Complete the STEAM Academy program

- Maintain a C or better in all STEAM Academy pipeline courses
- Complete the required coursework, including pipeline courses and four years of math and science.
- Complete the STEAM Academy Capstone Experience before April of your senior year.



The STEAM Academy Capstone Experience

The STEAM Academy Capstone Experience is titled as such as the concept is to have an experience, not necessarily a project. The Capstone Experience is broadly defined as participation in some event related to one's chosen pipeline that requires time and effort beyond one's normal coursework. Possible Capstone Experiences are, but not limited to, the following:

- Regional/State/National Contest Participation
- Conference/Workshop/Miniseries Attendance
- Academic Summer Camp Program
- Work experience/Job Shadowing/Internship
- Successful completion of professional certification program
- Independent project
- Independent coursework
- STEAM Academy students are encouraged to seek out their desired STEAM Academy Capstone Experience, including new ideas

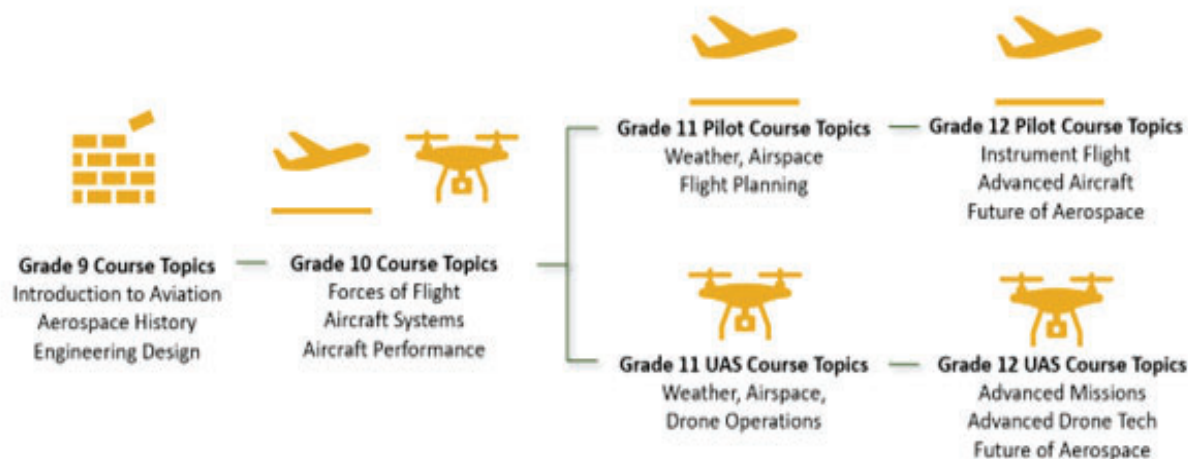


STEAM Electives

SCIENCE Anatomy and Physiology AP Biology, Chemistry, Physics Astronomy (H) Biotechnology (H) Dynamics of Healthcare Environmental Science Forensics Integrated Principles of Chemistry & Physics Marine Science	TECHNOLOGY & ENGINEERING Architecture Classical & Quantum Computing Data Science & Machine Learning Electronics Engineering Graphics & Computer Modeling Game Design Robotics Virtual Production	MATH Calculus College Math Topics Probability & Statistics The Art of Problem Solving	ART Advanced Art AP Studio Art Art Portfolio Ceramics I & II Digital Media & Animation I & II Foundations of Art Interior Design Introduction to Graphic Arts Photography II, III, IV
COMPUTER SCIENCE AP Computer Science AP Computer Science Principles Computer Science I Computer Science II	MUSIC AP Music Theory Band Broadway 101: Musical Stagecraft Chorus Guitar Techniques Music Appreciation Music Production Musical Theater Performance Music Theory	OTHER Accounting AP Economics AP Human Geography AP Psychology AP Seminar AP Research Business Finance Seminar Introduction of Business Introduction to Economics Introduction to Psychology Marketing Education	Sports & Entertainment Marketing Approved Co-op/Structured Learning Experience Approved extra-curricular courses VOCATIONAL Voc Math Voc Science Approved Voc Course by program

HIGH SCHOOL AVIATION PROGRAM

Monmouth Regional has been approved to offer the AOPA high school aviation program! Students in the Class of 2028 will be the first group of students we are able to provide this pipeline for! The Aviation curriculum consists of two aviation STEM career and technical education (CTE) pathways: Pilot pathway and Unmanned Aircraft Systems (drones) pathway. Each pathway is four years and students can decide to complete one or both pathways or can select individual courses to use as standalone electives. Each pathway of courses must be taken in sequential order beginning in 9th grade. In order to earn a full pilot license, there is an airtime requirement that is not offered by MRHS. Students who wish to earn a full pilot license must complete the required airtime on one's own time and cost after passing the written test after course 3. The curriculum includes six courses across two pathways, as shown below. In the 2024-2025 school year we will be looking to offer the first course: Introduction to Aviation, Aerospace History, & Engineering Design. **Aviation Program Supervisor: Dr. Wardell**



INTRODUCTION TO AVIATION, AEROSPACE HISTORY, & ENGINEERING DESIGN

[GRADE 9]

5 CR.

This course provides the foundation for advanced exploration in flying, aerospace engineering, and unmanned aircraft systems. Students will learn about engineering practices, problem-solving, and the innovations and technological developments that have made today's aviation and aerospace industries possible. Students will drill down into the various sectors of aviation and the elements of the aerospace ecosystem. They will discover how advances in aviation created a need for regulation and learn about the promulgation of civil aviation oversight. Students will explore modern innovations and develop innovative ideas to address the aviation industry's real-world challenges. They will be exposed to various career opportunities in aviation.

Note: Preference will be given to 9th grade students interested in pursuing the 4-year aviation course sequence. Remaining seats may be filled by interested 10th, 11th, and 12th graders.

FORCES OF FLIGHT, AIRCRAFT SYSTEMS, & AIRCRAFT PERFORMANCE

[GRADE 10]

5 CR.

Students will explore the types of modern aircraft before learning how aircraft are made and how they fly. Students will understand how aircraft are categorized, be able to identify their parts, and learn about aircraft construction techniques and materials. Students will study the forces of flight: lift, weight, thrust, and drag, including how to make key calculations. Students will touch on aircraft design, looking at stability, aircraft controls, and maneuvering flight. Students will analyze the systems that make crewed and uncrewed aircraft work. Beginning with aircraft powerplants and fuel systems, students will learn about the options available and how they affect aircraft design and performance. They will explore other key aircraft systems, including electrical, pitot-static, and vacuum systems. Students will learn about the flight instruments associated with each system and how to identify and troubleshoot common problems.

Prerequisite: Preference will be given to 10th grade students interested in pursuing the 4-year aviation course sequence who have taken the Introduction to Aviation course in 9th grade. Remaining seats may be filled by interested 10th, 11th, and 12th graders. This course would be offered in the 2025-2026 school year.

HIGH SCHOOL AVIATION PROGRAM

WEATHER, AIRSPACE, & FLIGHT PLANNING (PILOT PATHWAY)

[GRADE 11]

5 CR.

The 1st half of both 3rd year courses will prepare students to take either Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include preflight procedures, airspace, radio communications, aviation terminology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures.

The 2nd half of the course will cover the remaining topics necessary for students to take the Federal Aviation Administration's Private Pilot Knowledge Test. Students will learn about pilot and aircraft qualifications, cross-country flight planning, weight and balance, performance and limitations, human factors, chart use, night operations, navigation systems, and aeronautical decision-making. At the end of this course, students are eligible to take the Federal Aviation Administration's Private Pilot written exam.

Prerequisite: Must be in 11th grade and have taken Intro to Aviation and Forces of Flight courses. This course would be offered in the 2026-2027 school year.

WEATHER, AIRSPACE, & DRONE OPERATIONS (UNMANNED AIRCRAFT SYSTEMS PATHWAY)

[GRADE 11]

5 CR.

The 1st half of both 3rd year courses will prepare students to take either Federal Aviation Administration tests: the Private Pilot Knowledge Test or the Part 107 Remote Pilot Knowledge Test. Topics include preflight procedures, airspace, radio communications, aviation terminology, regulations, airport operations, aviation safety, weather, cockpit management, and emergency procedures.

The 2nd half of the course will cover many topics surrounding UAS missions, from mission planning to UAV performance to crew resource management. Students may take the Federal Aviation Administration's Part 107 Remote Pilot Knowledge Test upon completion of this course.

Prerequisite: Must be in 11th grade and have taken Intro to Aviation and Forces of Flight courses. This course would be offered in the 2026-2027 school year.

INSTRUMENT FLIGHT, ADVANCED AIRCRAFT, & FUTURE OF AEROSPACE (PILOT PATHWAY)

[GRADE 12]

5 CR.

Students will examine advanced aviation topics and career options. Instrument flight, commercial aviation, and advanced aircraft systems begin the semester. Students will then explore new horizons in the aerospace industry. The focus then turns to business development opportunities in aviation. Students will learn about and conduct different types of research in preparation for their capstone project in the second semester.

The capstone is the culmination of the student learning experience both 4th year courses. The students will work individually or in small groups to study and report on an aviation topic of their choosing. The goal of this capstone course is to allow students to demonstrate an understanding of a contemporary topic in aviation. The curriculum will include presentations and activities to help guide student research and project development.

Prerequisite: Must be in 12th grade and have taken Intro to Aviation, Forces of Flight, and Flight Planning courses. This course would be offered in the 2027-2028 school year.

ADVANCED MISSIONS, ADVANCED DRONE TECH, & FUTURE OF AEROSPACE (UNMANNED AIRCRAFT SYSTEMS)

[GRADE 12]

5 CR.

After preparing for the Part 107 Remote Pilot Test the previous year, students can earn a valuable FAA certification and CTE stackable credential to work as commercial drone pilots. In this course, students will use that certification—and the knowledge they acquired pursuing it—in real-world scenarios that illustrate how drones are used across various industries today. Students will also learn how drone operations can be used to build or enhance a business and the entrepreneurial skills necessary to get a start-up off the ground. They will also review drone rules within their communities, enabling them to make recommendations to elected officials on optimizing UAS operations in their communities. Finally, students will learn about and conduct different types of research in preparation for their capstone project in the second semester.

The capstone is the culmination of the student learning experience both 4th year courses. The students will work individually or in small groups to study and report on an aviation topic of their choosing. The goal of this capstone course is to allow students to demonstrate an understanding of a contemporary topic in aviation. The curriculum will include presentations and activities to help guide student research and project development.

Prerequisite: Must be in 12th grade and have taken Intro to Aviation, Forces of Flight, and Drone Operations courses. This course would be offered in the 2027-2028 school year.



BUSINESS EDUCATION (meets the Practical Arts graduation requirement)

National Business Education Honor Society

Qualified students will have the opportunity to apply for membership in the National Business Education Association Honor Society. NBEA members can recognize our outstanding business students.

Benefits of membership include:

- opportunity for local & national recognition of our outstanding business students
- opportunity to promote & recognize: service learning, academic achievement, and leadership and character development
- students can enhance their college, scholarship, & employment applications

DIGITAL BUSINESS TOOLS & TECHNOLOGY

[GRADES 9, 10, 11, 12] 5 CR.

Students will develop the necessary skills to communicate safely, quickly & effectively via a variety of business documents and applications. Through project-based learning, students will actively apply digital skills to help them solve real-world problems and build relevant business projects. Effective use of social media applications in business will also be used. Digital and presentation skills help people responsibly use tools and applications which allow for easier communication, collaboration, creativity, and critical thinking through technology - and play an important role in preparing students and learners for their continuing education, as well as jobs of today and tomorrow.

FINANCIAL LITERACY

[GRADES 9, 10, 11, 12] 2.5 CR.

Satisfies the Financial Literacy graduation requirement, but is not a Business Academy course.

Students will apply decision making skills for money, credit, checking and savings accounts and maintaining a budget. Students will refine their use of digital tools and learn to use these to create a digital portfolio containing a resume, projects and activities reflecting personal and academic interests, achievements and career aspirations.

INTRODUCTION TO BUSINESS

[GRADES 9, 10, 11, 12] 5 CR.

Satisfies the Financial Literacy graduation requirement.

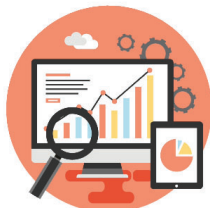
Course is designed to provide a general overview of the business world. It is ideal for students who may want to pursue a business major in college or may have an interest in investigating a particular business field, i.e., accounting, management, marketing, etc. Students will be introduced to various business fields and courses offered within the Business Department. The first half of the course will take an in-depth look at managing personal business and financial affairs. There are a number of group projects and associated field trips to complement this course.

SPORTS & ENTERTAINMENT MARKETING

[GRADES 10, 11, 12] 5 CR.

This course acquaints students with the business aspects of the sports and entertainment industries. Professional and amateur sports generate revenue from broadcasts and ticketing, have licensing rights, develop promotional opportunities and market and manage their teams. Businesses of all sizes participate in sports in some capacity by sponsorships of teams, leagues and tournaments to promote themselves. Solid business skills are vital to the success of this field. Colleges and universities offer degrees in Sports Management. Both speakers and field trips will enhance the content of this course.

Prerequisite: Introduction to Business



ACCOUNTING

[GRADES 10, 11, 12] 5 CR.

Accounting is the language of business. To understand how a business operates, it is important to know how a business records and reports its financial records. If you are going to college and are planning on a business major, you will have to take several accounting courses. Get a head start; find out what accounting is all about. If you plan to own your own business, then it is equally important not to have to rely on others to take care of your financial records. This course will introduce you to how a small business and a partnership keep accurate records. Use this course as a springboard to Business Finance Seminar and/or Stocks & Financial Markets.

Prerequisite: Introduction to Business

MARKETING EDUCATION

[GRADES 10, 11, 12] 5 CR.

Marketing is one of the broadest and most vital functions of business today. Students will discover the process of marketing a product/service in today's fast-paced business environment. This course will define and explore all of the various areas that make business work—marketing, selling, advertising, marketing math, management, communications, public relations, buyer behavior, marketing research, product strategies/development, distribution, display, promotion and pricing. Marketing will encourage the modern business structure of teamwork (both in-person & virtually), critical thinking skills, and meeting deadlines. An excellent course for the college bound business major or any student who would like to understand how business functions before they enter this new arena.

Prerequisite: Introduction to Business

BUSINESS FINANCE SEMINAR (H)

[GRADES 11, 12] 5 CR.

Course is designed as a capstone business class for upper-classmen interested in becoming business majors in college and/or those interested in running their own business in the future. Students will complete the accounting work pertaining to a partnership which began in Accounting and utilize that knowledge, in conjunction with theory learned from prior business classes to participate in a hands-on project-based class. In this project-based environment, students will create their own actual business. They will create and regularly update their business financial information on their balance sheets and income statements. Students will regularly utilize computer languages including but not limited to: Word, Excel and PowerPoint. In addition, the students will create a business plan prior to starting their business. Students have an opportunity to be creative when designing their business. Both speakers and field trips will enhance the content of this course.

Prerequisite: Accounting

BUSINESS LAW & ETHICS (w/Honors Option)

[GRADES 11, 12] 5 CR.

This course is for students interested in exploring the moral, social and legal issues in business and their connection with current business practices. Course will cover the principles and concepts of legal activities and ethical behaviors which influence the operation of business and personal life activities. This will include (but not limited to) forms of business organization, contracts, the sale of goods, employment law, internet law, product warranties, consumer protection, employment conditions, our court systems and trial procedures, values and morality, cultural beliefs, corporate social responsibility and consumer rights in all areas of business. Characteristics of business life through cases and examples will be examined.

Prerequisite: Introduction to Business

APPLIED TECHNOLOGY

BUSINESS EDUCATION (meets the Practical Arts graduation requirement)

STOCKS & FINANCIAL MARKETS (w/Honors Option) [GRADES 11,12] 5 CR.

This course builds on prior business classes, connecting foundations of economics to the foundations of finance and to selecting investments. We look at questions such as what is the role of risk in investment? Why have some investments done well while others have not? Business and economic practices will be evaluated by reviewing financial markets and the decisions of businesses. In addition, a trading room environment will bring in relevant discussions of current economic developments as well as stock and equity markets. Students will participate in real time trading cases where they will develop and maintain a stock analysis to summarize the results of their investing decisions as well as key economic data that includes current and past events and developments of financial markets and business trends. This course will take an optional field trip to the New York Stock Exchange in New York City. *Students successfully completing this course are eligible for college credit through our partnership with Fairleigh Dickinson University. Current cost per credit is \$100.*
Prerequisite: Introduction to Business

Students in all Business courses will be encouraged to participate in DECA (an Association of Marketing Students) and/or FBLA (Future Business Leaders of America), both co-curricular clubs. These clubs provide the opportunity for students to develop leadership skills through active participation in community service and club management activities, as well as enhancing analytical problem solving, decision making skills, and real-world business practices through competitive events and projects at the District, State and National Levels.

COOPERATIVE MARKETING/STRUCTURED LEARNING EXPERIENCE

[GRADE 12] 10 CR.
This program allows students the opportunity to participate in one of two off-campus experiences:

1. **Cooperative Work Experience:** A traditional school-work experience, where students attend school in the morning (INCLUDING related class block) & early release time to work at a paid, part-time job (work schedules could be done after school or early release IF graduation requirements are met and schedule allows it). CE Coordinator works with the student & employer to provide the student with a meaningful, safe work experience where both student and local businesses benefit. The student is taught employment & management skills along with individual instruction related to their work and/or interest which will become part of their career portfolios.

2. **Structured Learning Experience:** This program allows students to get first hand experience in and exposure to career areas they are interested in BEFORE they embark on their college experience. Students attend school in the morning (INCLUDING related class block). Experience could be done after school or early release IF graduation requirements are met and schedule allows it. The student is taught employment & management skills along with individual instruction related to their work and/or interest which will become part of their career portfolios.
Prerequisite: Application & interview with CE Coordinator BEFORE the end of Junior Year. Parental permission for early release time. Students must provide their own transportation. **If students do not attain completion of NJ State Testing Requirements at the end of junior year, full participation in the program may be impacted.**

FAMILY AND CONSUMER SCIENCES (meets the Visual and Performing Arts or Practical Arts graduation requirement)

CHILD DEVELOPMENT I: FOUNDATIONS OF CHILD AND PERSONAL DEVELOPMENT (PRA)

[GRADES 9, 10, 11, 12] 5 CR.

The course begins with the study of children from the prenatal stage through middle childhood. The physical, intellectual, emotional, social, and moral development of each age is covered. Emphasis is placed on useful child care skills and positive methods of behavior management. Projects include children's nutrition, toy analysis, creative story presentation, and an infant simulator experience. The course continues with personal development and independent living skills. Money management, budgeting, bank accounts, check writing, and consumer skills are included. Additional topics of study include nutrition, interior design, and sewing (hand and machine). The class is a prerequisite for Pre-school Lab.

CHILD DEVELOPMENT II: PRE-SCHOOL LAB (PRA)

[GRADES 10, 11, 12] 5 CR.

In this full-year laboratory course, students plan and operate a nursery school for preschool children ages 3, 4 and 5. High school students study child guidance, curriculum planning, and techniques for teaching preschoolers. They prepare lesson plans and act as the teacher of the day. This course offers students an opportunity to interact with children and learn about child development and behavior through a personal experience. This class is an excellent prerequisite for a career related to children as well as for personal enrichment.
Prerequisite: Child Development or Psychology

CHILD DEVELOPMENT III: TOMORROW'S TEACHERS (PRA)

[GRADES 11, 12] 5 to 15 CR.

The primary goal of this program is to encourage academically able students who possess exemplary interpersonal and leadership skills to consider teaching as a career. It includes three themes: Experiencing the Learner; Experiencing the Profession; and Experiencing the Classroom. A variety of hands-on activities and a strong emphasis on observations, and field experiences are provided.
Prerequisite: Child Development II

CHILD DEVELOPMENT IV: CHILD DEVELOPMENT SEMINAR (PRA)

[GRADES 11, 12] 5 to 15 CR.

This class allows the student an opportunity to continue teaching in our nursery school. The high school students become the head teachers and assume more responsibilities for the operation of the program including field trip planning and working on our special projects with the elementary school children.
Prerequisite: Child Development III

CHILD DEVELOPMENT IV: FIELD EXPERIENCE (PRA)

[GRADE 12] 5 to 15 CR.

This program is designed to provide the advanced Child Development Lab student with the opportunity to participate daily in various programs for children in the community. Day care centers, elementary schools and private nursery schools are the cooperating agencies.
Prerequisite: Must have a B or better average and taken Child Development III.



FAMILY AND CONSUMER SCIENCES

(meets the Visual and Performing Arts or Practical Arts graduation requirement)



FASHION & APPAREL I (VA/PRA)

[GRADES 9, 10, 11, 12]

5 CR.

This course is intended to introduce the student to the fashion industry and the many opportunities available. The content focuses on information, skills and attitudes needed for future learning and employment. Students explore the various occupations and advanced educational opportunities available to them in the clothing and textile fields. Laboratory experiences include clothing construction, use of the sewing machine and other appropriate materials and appliances as well as an introduction to fashion illustration.

FASHION & APPAREL II (VA/PRA)

[GRADES 10, 11, 12]

5 CR.

This is the second year of a sequential program. Students explore the diverse career opportunities within the fashion industry and assess the skills and education necessary for success. Students continue to master advanced clothing construction techniques. Students also utilize technology literacy standards through career research and textile study. Students build on previous design knowledge to develop technical design skills.
Prerequisite: Fashion & Apparel I

FASHION & APPAREL III (VA/PRA)

[GRADES 11, 12]

5 CR.

This course is structured to introduce the student to the principles and practices of fashion design, fashion merchandising, and the fashion industry as a whole. In addition, the students refine design, illustrate and use construction skills to meet individual goals. Students assemble a portfolio of design work for entry into a post-high school fashion program, industry or retail employment, and/or personal satisfaction.
Prerequisite: Fashion & Apparel II

FOODS I (PRA)

[GRADES 9,10,11,12]

5 CR.

In Foods I, the student will be provided with learning experiences in the area of basic nutrition, meal planning and food preparation. A laboratory setting will give the student an opportunity to apply their food preparation skills to a variety of recipes. Principles of safety/sanitation, management of resources, family and life skills will be emphasized.

FOOD SERVICE (PRA)

[GRADES 10, 11, 12]

5 CR.

Food Service is a second level food course designed to prepare students for work in the food service industry. The students will develop their food preparation techniques in a laboratory setting and apply them to a variety of food service projects.

Prerequisite: A grade of "B" or better in Foods I or with Departmental approval.

GOURMET FOODS (PRA)

[GRADES 11, 12]

5 CR.

Gourmet Foods is a course planned for the serious student of food preparation. Students will study the history of food, famous chefs, and analyze recipes. They will be given the opportunity to experiment with recipes and create new dishes.

Prerequisite: A grade of "B" or better in Food Service or with Departmental approval.



INDEPENDENT LIVING (PRA)

[GRADES 10, 11, 12]

5 CR.

Satisfies the Financial Literacy graduation requirement.

Ready to live on your own? This course helps to prepare students for life in the "real" world by showing what's involved in determining personal values, making choices and decisions, establishing credit, and preparing budgets based on projected income. Students will learn how to prepare fast and nutritious meals for one or two people, choose and furnish a first apartment, purchase and maintain a used car, select clothing appropriate for work and leisure, and do simple clothing repairs. Establishing satisfying relationships with apartment roommates, potential marriage partners, friends, and relatives; and deciding ways to use leisure time effectively are other aspects of this course.

INTERIOR DESIGN (VA/PRA)

[GRADES 9, 10, 11, 12]

5 CR.

Interior Design is a course designed to introduce students to the personal, technical and aesthetic aspects of the interior environment. Students will explore the design of residential architecture. Students will be challenged in the areas of art, rendering, presentation preparation and design technology. More specifically, students will identify, research and evaluate basic architectural trends, furniture styles and materials, elements and principles of design, activity spaces, textiles, interior backgrounds, floor plans and careers in design.

ART (meets the Visual and Performing Arts graduation requirement)

National Art Honor Society

Qualified students will have the opportunity to apply for membership in the National Art Honor Society. Membership provides national recognition and opportunities for students who exhibit outstanding scholarship in the visual arts, and for their teachers.

Requirements:

- Grade of 90 or higher in Art classes
- Minimum one year of credit in Art
- 2 teacher recommendations

FOUNDATIONS OF ART

[GRADES 9, 10, 11, 12]

5 CR.

A background in art is not required to explore this first art course. It covers the fundamentals including line, shape, value, form, color and texture together with art critique, aesthetics and art history within each unit of study. The units include drawing (pencil, charcoal, pen and ink and pastels), painting (tempura and watercolor), printmaking, batik fabric, ceramics, sculpture and paper mache.

ADVANCED ART

[GRADES 10, 11, 12]

5 CR.

This second year art course extends the concepts learned in Basic Art. The student will explore new media and expand their art experience. The emphasis in this course will be the principles of art which are: rhythm, movement, balance, proportion, variety, emphasis and unity. These principles will provide a basis for exciting and creative hands-on assignments.

Prerequisite: Foundations of Art

CERAMICS/SCULPTURE I

[GRADES 9, 10, 11, 12]

5 CR.

Students will be able to enter Ceramics I with no prior knowledge. They will be introduced to clay bodies, safe utilization of the ceramics studio and all of its processes. Students will have an in depth understanding of ceramics tools, ceramic glazes, kiln methods and hand building techniques while creating functional and/or decorative ceramics pieces utilizing this knowledge. By the completion of Ceramics I, students will be able to fully understand three-dimensional form, and all of the basic elements within. They will have a thorough understanding of safety, kiln methods, tool usage and clay bodies before having the opportunity to enter Ceramics II.

CERAMICS/SCULPTURE II

[GRADES 10, 11, 12]

5 CR.

Ceramics/Sculpture II is a studio course that enhances and builds upon the skills and knowledge acquired in Ceramics I. Students enrolled in this class demonstrate exceptional dedication, skill, concept and practice in ceramic arts. Students will review hand building methods, additive and reductive processes, alternative firing and advanced glazing, kiln management and the pottery wheel.

Prerequisite: Ceramics I

ART PORTFOLIO (H)

[GRADES 11, 12]

5 CR.

The third year Art Portfolio is an extension and intensification of all the areas in art previously studied. Students will explore the expressive qualities of the elements to create works of art in their desired specialization (i.e. drawing, painting, printmaking, sculpture, etc.). This course is open to art students interested in specializing in any of the specific areas of art. Students will be responsible for a portfolio of pre-assigned art works representing all major fields of fine arts. This portfolio will serve as a preparation for students who plan to enter an art school or to become apprentices in any of the art fields.

Prerequisite: Foundations of Art and Advanced Art or teacher and Supervisor recommendation

AP STUDIO ART

[GRADE 12]

5 CR.

The Advanced Placement Studio Art course is designed for students that are seriously interested in furthering their study and experience of creating art. Those interested in attending an art and design university, majoring in art or design, or are interested in receiving college credit for art courses should be considered. This class requires a great deal of time, passion, talent and most importantly creativity. The AP Studio Art course offers two different types of art and design portfolio exams to choose from: Drawing and 2-D Art & Design. AP Drawing and AP 2-D Art & Design culminate in the completion of a large body of work throughout the year and a final portfolio submitted both digitally and physically at MRHS and the AP College Board for review.

Prerequisite: Departmental approval by teacher and Supervisor

AP Drawing Portfolio is for the student that focuses and excels in drawing and painting. Students submitting a Drawing Portfolio will demonstrate their mastery of drawing with emphasis on mark making, light and shade, line quality, rendering of form, composition, surface manipulation, and the illusion of depth. Students will use mediums such as pencil, charcoal, paint, and pastels.

AP 2-D Art & Design Portfolio focuses on making work that emphasizes the elements of art (line, shape, color, value, texture, and space) using the principles of design (unity/variety, balance, emphasis, contrast, rhythm, figure/ground relationships and proportion/scale). These students will use mediums such as photography, computer art, graphic design, drawing, painting and mixed media.

DIGITAL MEDIA & ANIMATION I (VA/PRA)

[GRADES 9, 10, 11, 12]

5 CR.

An introduction to digital graphic design and illustration, utilizing Adobe Illustrator, Adobe InDesign, Adobe After Effects, Adobe Fresco and Procreate. Students will learn elements of art and graphic design fundamentals. Individual and collaborative projects mimic those in a professional design environment and are developed following the traditional creative process. Projects include typography, digital illustration(drawing), packaging, branding, content creation and introduction to animation.

Prerequisite: Beginning in the 2025-2026 school year, *Introduction to Graphic Arts* will be the pre-requisite for this course.

DIGITAL MEDIA & ANIMATION II (VA/PRA)

[GRADES 10, 11, 12]

5 CR.

A secondary level course for students that have previously taken Digital Media and Animation I. Students will learn the basic theories and principles of animation. The course will provide an overview of the early history of animation, and its correlation to current practices. Projects will include stop motion, informational videos, content creation and 2D Computer animation. Students will create animated videos using Adobe Fresco, Procreate, After Effects and Adobe Animate.

Prerequisite: Digital Media & Animation I



INDUSTRIAL ARTS

(meets the Visual and Performing Arts or Practical Arts graduation requirement)



INTRODUCTION TO GRAPHIC ARTS (VA/PRA)

[GRADES 9, 10, 11, 12] 5 CR.

This course provides a basic introduction to the graphic arts. Within the program, the student will have a chance to work with tools of the industry. Graphic layout & design, photography and silk screening are the major areas of concentration. Other areas of graphic arts will also be explored in this course. This cross section of graphic arts can be helpful as part of an overall general education or may be the foundation for future vocational technical studies. *Beginning in the 2025-2026 school year this course will be a prerequisite for students interested in taking Digital Media & Animation I to pursue a graphic design interest. Students interested in photography would take Photography II.*

PHOTOGRAPHY II (VA)

[GRADES 10, 11, 12] 5 CR.

Photography II is a full year course and is designed for the student who has more than a basic interest in photography. The student will refine the skills learned in Graphic Arts I concerning the theories of light, camera and darkroom, and use them on assignments of a more advanced nature. The course of study will include the operation of the single lens reflex camera, advanced camera and darkroom effects, and the proper use of special camera equipment such as lenses and flash units. The student will also be exposed to the digital darkroom and the use of photo editing software. Emphasis will be placed on proper use of the computer for digital photography and ink jet printing theory. Prerequisite: Introduction to Graphic Arts

PHOTOGRAPHY III (VA)

[GRADES 11, 12] 5 CR.

This course is for the student who has a very deep interest in Photography. This interest should be career oriented and add to the students overall education. The student will be expected to develop a high proficiency of skills in photographic activities and projects. Area of study will include color photography, advanced black & white techniques, special effects, portraiture and careers in photography. A new extensive computer photo enhancement and manipulation section is also studied. Prerequisite: Photography II

PHOTOGRAPHY IV (H) (VA)

[GRADE 12] 5 CR.

Photography IV is part of a four year Graphic Arts program, which provides advanced photographic techniques and supports critical thinking through problem solving activities. The students are taught to work independently on their assignments outside of a structured classroom. This promotes independent thinking and problem solving, along with being able to express themselves through creativity. The course of study will be based on computer imaging technology. This will include digital photography, image editing through advanced software, color management and output. Students will be encouraged to construct a portfolio of their best work, which will be used for college admission or entry into the work force. Prerequisite: Photography III or Photo III and IV together with permission of the teacher and supervisor

ENGINEERING GRAPHICS & COMPUTER MODELING (VA/PRA)

[GRADES 9, 10, 11, 12] 5 CR.

This course is a requirement for all STEAM Academy Engineering/ Technology pipelines

This course provides an introduction to drafting, computer modeling, rendering, animation, and 3d printing. The year begins with the use of basic drafting tools to represent three dimensional objects using scale, line weight, orthographic projections, and perspective. The focus then shifts to computer modeling in SketchUp Pro. Students will build virtual models and create presentation media including orthographic images, renderings, and animations. Students will also design, model, and 3d print an object in response to a design challenge. SketchUp models are imported into Twinmotion for real time rendering. Rendered images, videos and interactive packages are exported and students may have the opportunity to experience their rendered model in VR. All student work is organized into a digital portfolio.

GAME DESIGN (H) (VA/PRA)

[GRADES 10, 11, 12] 5 CR.

Game Design builds on the skills from Computer Modeling I and provides an introduction to game design inside Unreal Engine. Students begin the year by brainstorming ideas for their game and creating inspiration and storyboards to guide their design decisions. They then begin to model assets for the game in SketchUp Pro, learning advanced modeling techniques. Real time rendering with Twinmotion is reviewed, as students create an environment to set the scene for their game. Models are then imported into the most current version of Unreal Engine. Visual Blueprint is used to build custom materials, lighting & particle effects, heads up displays, and character interactions with model objects. Rigged characters are imported and animations are created or imported for the characters. Sequences are created to animate objects and produce cut scenes. Students have the option to create additional custom assets, such as models and rigs Blender. By the end of the year, student groups should have produced a working game level. All student work is organized into a digital portfolio. Prerequisite: Engineering Graphics & Computer Modeling

Programming experience is recommended but not required

VIRTUAL PRODUCTION (H) (VA/PRA)

[GRADES 10, 11, 12] 5 CR.

Virtual Production builds on the skills from Computer Modeling I and provides an introduction to virtual production inside Unreal Engine. Students begin the year by brainstorming ideas for their movie and creating inspiration and storyboards to guide their design decisions. They then begin to model assets for the game in SketchUp Pro, learning advanced modeling techniques. Real time rendering with Twinmotion is reviewed, as students create an environment to set the scene for their game. Models, characters and animations are created and imported into Unreal Engine for sequencing. Additional animations are created on characters using the IK control rigs. Students will also record, edit, and add at least thirty seconds green screen video to their CG environment. VFX are added and all sequences are recorded to produce one or more virtually produced short movies, music videos, historical documentaries, or a similar production. All student work is organized into a digital portfolio. Prerequisite: Engineering Graphics & Computer Modeling

Programming experience is recommended but not required

INDUSTRIAL ARTS

(meets the Visual and Performing Arts or Practical Arts graduation requirement)

ARCHITECTURE (H) (VA/PRA)

[GRADES 10, 11, 12]

5 CR.

Design criteria are developed as part of a student generated challenge. The physical, environmental, historical, and socioeconomic aspects of a site are researched using ArcGIS online, and an ESRI Story map is developed and published to explain the context of the proposed building. The design is developed using a combination of hand sketching and computer modeling as students respond to the constraints imposed by their site and by building standards and codes. GIS data is used to build an accurate model of the site before design development models are iterated in SketchUp Pro. LEED standards are reviewed and the environmental sustainability of the proposed building is addressed. Revit, an industry standard BIM software, is introduced and used to produce a final model and drawing set. Line drawings are utilized to produce laser cut parts for a physical model, while the computer models are imported into Twinmotion for real time rendering. Using a Vive, students will explore their designs in virtual reality. All student work is organized into a digital portfolio.
Prerequisite: Engineering Graphics & Computer Modeling



DATA SCIENCE AND MACHINE LEARNING (PRA)

[GRADES 9, 10, 11, 12]

5 CR.

This course explores data science and its applications in machine learning. The first portion of the class covers data types, collection, cleaning, analyzing, and visualization in Google Sheets or Microsoft Excel using data collected from a hands-on project. Basic Python programming is reviewed before libraries are utilized to organize, clean, and visualize large datasets. Using the cleaned data, students will train and evaluate various machine learning models, including linear regression, polynomial regression, K-nearest neighbors, logistic regression, and artificial neural networks. The ethics of applied machine learning and potential biases are discussed. Python libraries utilized include pandas, matplotlib, scikit-learn, NumPy, and Keras.
Prerequisite: Algebra I

ROBOTICS (PRA)

[GRADES 9, 10, 11, 12]

5 CR.

This course explores elementary mechanical & electrical aspects of robots and introduces students to programming. Students learn how simple machines and mechanisms produce different types of movement. This is followed by basic flow-charting techniques, allowing them to create a visual representation of a set of instructions. Students learn how to program movement, sensors, and decisions using the block code programming language used by the EV3 Mindstorm robots. A short unit on cyber-security with the Micro:bit segues into text-based programming with Python. A short introduction or review of circuitry is completed before robot bodies are built, wired to the Micro:bits, and programmed to complete challenges using onboard sensors. The year concludes with the Micro:bits replaced by Arduinos, allowing the students to program the robots in Arduino C to complete objectives using peripheral sensors requiring more challenging circuits. All student work is organized into a digital portfolio.

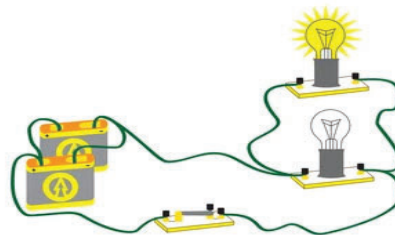
ELECTRONICS (PRA)

[GRADES 9, 10, 11, 12]

5 CR.

This course is a requirement for all STEAM Academy Engineering/ Technology pipelines

This course provides an understanding of electricity and digital circuits. The year begins by building on students' prior understanding of atoms and energy to build a foundation for understanding the flow of current through various types of circuits. The mathematical application of Ohm's, Joule's, and Kirchhoff's Laws in series and parallel circuits are practiced. Using a combination of computer models and solderless breadboards, students explore: series and parallel circuits; LEDs and RGB LEDs; capacitors and RC circuits; the 555 timer, logic gates with the 7400 quad NAND IC; logic with transistors and the importance of transistors to computing and to local history; and DC motors. Students are also taught the safe use of soldering equipment. All student work is organized into a digital portfolio.



CLASSICAL AND QUANTUM COMPUTING (H)(PRA)

[GRADES 10, 11, 12]

5 CR.

Formerly Electronics II. Students begin the year by reviewing and adding to their understanding of logic gates. Using a combination of computer models and solderless breadboards, they move on to building a decade counter, a 4 bit binary counter with 7 segment display, an up/down binary/decade counter, and a shift register, before embarking on the assembly of a rudimentary computer. Fiber optic communications are discussed, which builds a foundation for an introduction to quantum computing. The differences between classical and quantum mechanics are introduced, followed by quantum bits (qubits), quantum gates, and quantum circuits. Students will then program quantum circuits using the IBM quantum experience or similar application. All student work is organized into a digital portfolio.
Prerequisite: Electronics

ENGLISH I (H)

[GRADE 9] (NCAA)

5 CR.

Freshman Honors English is a challenging course that traces the evolution of the hero from Ancient Civilizations up to the Modern Period of literature. This course is paired with the Freshman Honors World History class so that both the literature and historical events are taught chronologically. Emphasis will be placed on the following: Ancient World Literature, Ancient Greek Literature, Medieval Literature, Renaissance Literature, Victorian Literature and Modern Literature. The syllabus includes multiple pieces of fiction, non-fiction, literary criticism, poetry, drama and other ancillary materials. Formal and timed essays will focus primarily on the analysis of texts. Socratic Seminar discussions will be based on texts, literary criticism, and ancillary materials. This rigorous course will help students develop critical reading and writing skills to help prepare for their transition to Sophomore Honors English. The English I Honors curriculum offers students their first exposure to the rigors of an advanced English program. Honors English is designed for those that have the work ethic and time management skills to handle a heavier course load, including homework and extended assignments. Prerequisites including middle school assessments, final grades, reading and writing samples, and middle school teacher recommendations. Students who choose to start in CCR English I, still have the opportunity to move up to Honors in their sophomore year. The expectation is that all incoming freshman who commit to taking Honors I remain in the course for the entire school year. All students are required to complete their summer reading assignments before the first day of school. Assignments are posted online.

ENGLISH I (CCR)

[GRADE 9] (NCAA)

5 CR.

English I CCR continues students on their path to developing College and Career Readiness skills in the areas of reading, writing, speaking, listening and viewing. This course focuses on reading literary and non-fiction selections from around the world, various forms of informal/formal writing opportunities and Socratic Seminar to help students explore essential questions and enduring understandings throughout each unit. All courses infuse technologies relevant to 21st century learners and are aligned with the New Jersey State Learning Standards.

ENGLISH II (H)

[GRADE 10] (NCAA)

5 CR.

The sophomore honors English curriculum offers students their second installment in a four year sequential program of studies which will improve their skills of communication in: reading (novels, podcast, documentary, short stories, poems), writing (literary analysis, expository, argumentative and narrative), listening, viewing, and speaking (seminars). The focus this year is on the development of identity. Students will study all the factors that influence a person's identity. All students are required to complete a summer reading assignment before the first day of school. Assignments are posted online.



ENGLISH II (CCR)

[GRADE 10] (NCAA)

5 CR.

English II CCR builds on College and Career Readiness skills in the areas of reading, writing, speaking, listening and viewing. This course focuses on identity related to both the individual and society through essential questions, enduring understandings and Socratic Seminar requirements in each unit. The course continues to infuse technologies, critical reading development and independent writing skills that are aligned to the New Jersey State Learning Standards.

ENGLISH III (H)

[GRADE 11] (NCAA)

5 CR.

The junior honors English curriculum offers students their third installment in a four year sequential program of studies which will improve their skills of communication in: reading (novels, historical documents, short stories, poems), writing (literary analysis, expository, argumentative and narrative), listening, viewing, and speaking (seminars). The focus this year is American literature. There is a course requirement of a research paper which is done independently. This course has a required summer reading assignment AND Grade 11 Research Paper requirement for all juniors. **As per our MRHS Board of Education Policy, credit will not be awarded if the required research paper is not completed with a passing grade.*

ENGLISH III (CCR)

[GRADE 11] (NCAA)

5 CR.

English III CCR continues the sequential English program that further develops College and Career Readiness skills in the areas of reading, writing, speaking, listening and viewing. The course puts emphasis on American Culture & Identity through project based learning, class discussions/seminars, reading, writing, and the inclusion of various media. Student focus is on the development of personal opinions that can be supported with various types of evidence, which will culminate in the Grade 11 Research Paper, a requirement for all juniors. **As per our MRHS Board of Education Policy, credit will not be awarded if the required research paper is not completed with a passing grade.*

ENGLISH IV (H)

[GRADE 12] (NCAA)

5 CR.

The honors English IV course gives students the opportunity to explore classic and modern literature with an emphasis on upper-level literary analysis. Students will read classics such as "Frankenstein" through more modern fare by creatives like Margaret Atwood. Students will explore their own role as a critic of great novels using a variety of literary tools. Students taking the course should have the ability to read and write independently and have time management skills. Seton Hall's Project Acceleration carries an additional cost that must be paid by parents for college credit. This is a great course for college-track seniors looking to acquire necessary skills for a college classroom.

ENGLISH IV (CCR)

[GRADE 12] (NCAA)

5 CR.

Twelfth grade CCR is the capstone course of our sequential English program. As part of their transition out of high school, students will prepare college essays, resumes and applications. Whether continuing to a post-secondary education or work, students will develop College and Career Readiness skills through four units of formal and informal writing that compliments both literary and non-fiction study. Students will leave MRHS having mastered New Jersey State Learning Standards for ELA aligned to a curriculum that best prepares them for the 21st century.

ENGLISH COLLEGE ACCREDITED PROGRAMS

COLLEGE CREDIT OPTIONS AT MONMOUTH REGIONAL FOR ENGLISH CLASSES

SETON HALL UNIVERSITY DUAL ENROLLMENT

AP Literature & Composition A/B, AP Language & Composition, & English IV Honors are currently available for college credit from Seton Hall University. Seton Hall offers 3 credits for AP Language & English IV Honors and 6 credits for AP Literature. This credit is transferrable nationally through Seton Hall's Project Acceleration Program. The current cost is \$110.00 a credit. Registration is scheduled each September.

ENGLISH IV (H)

[GRADE 12] (NCAA)

5 CR.

The honors English IV course gives students the opportunity to explore classic and modern literature with an emphasis on upper-level literary analysis. Students will read classics such as "Frankenstein" through more modern fare by creatives like Margaret Atwood. Students will explore their own role as a critic of great novels using a variety of literary tools. Students taking the course should have the ability to read and write independently and have time management skills. Seton Hall's Project Acceleration carries an additional cost that must be paid by parents for college credit. This is a great course for college-track seniors looking to acquire necessary skills for a college classroom.

AP LANGUAGE & COMPOSITION

[GRADE 11, 12] (NCAA)

5 CR.

AP Composition provides a comprehensive study of the facets of written language. Students will acquire sophisticated writing skills while practicing analysis, synthesis and argument essays included in the AP English Language and Composition Exam. Students will also be instructed in strategies for success in the multiple-choice part of the exam. This course primarily uses non-fiction texts. The study of formal rhetoric provides a foundation and enhances the reading and writing skills of students. Anthologies of non-fiction essays provide varied models for writing and questions for close reading. A term paper based upon the analysis of a nonfiction text is required to complete the course. Credit will be awarded when this requirement is successfully completed. Students taking this course will be prepared to take the AP Language and Composition Exam in May. This provides these students with another way to earn college credits while in a high school classroom. All students are required to complete a summer reading assignment before the first day of school. Assignments are posted online.

AP LITERATURE & COMPOSITION A/B

[GRADE 12] (NCAA)

10 CR.

The English and Social Studies departments collaborate in the instruction and design of this course which offers daily classes and a double AP grade multiplier. A hands-on approach merges knowledge from several fields of world culture: literature, history, philosophy, music and the arts of selected historical periods. Combined with the individual expertise of the social studies and English teachers, an interdisciplinary approach to culture is the goal. Students examine the context in which various works of literature were produced. As part of the AP English Literature and Composition curriculum, students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. In addition, this course prepares students for the AP English Literature and Composition exam providing them with another way to earn college credit while in a high school classroom. All students are required to complete a summer reading assignment before the first day of school. Assignments are posted online.



BROOKDALE DUAL ENROLLMENT

This Dual Enrollment course achieves the mandatory 4th year of English for MRHS seniors as well as 6 college credits for completing two Brookdale courses. MRHS English staff with a Master's degree and the approval of Brookdale Community College teach the class giving students a preview of college course-work while maintaining the structure of the high school setting. This comprises 2 Brookdale courses (a fall and spring semester) combined into a single school year; students do not have to go to Brookdale's campus for the course because the course is taught exclusively at MRHS. Please be aware each course must be paid for in full before the semester deadline. Students who take this course are required to take both semesters.

ENGL 121-ENGLISH COMPOSITION: THE WRITING PROCESS

[GRADE 12] (NCAA)

English 121 is an introductory writing course where students compose and revise narrative and expository essays and prepare the study of literature by using writing to analyze texts. Through a writers' workshop approach, students explore the writing process, respond to a variety of texts and learn to communicate their ideas effectively and confidently in writing. ENGL 121 is a mandatory course for all students who attend Brookdale. MRHS students who pass ENGL 121 their senior year can then schedule for ENGL 122 when they start at Brookdale. (3 credits)

ENGL 155-THE SHORT STORY

[GRADE 12] (NCAA)

Students will read and discuss short stories drawn from the literature of many cultures and countries. They will analyze the stories for theme, form, relationship to their own lives and reflection of various cultures. The relevance of these short stories for the modern reader will be examined. ENGL 155 is a mandatory General Education requirement for any degree program at Brookdale. (3 credits)



BROOKDALE
COMMUNITY COLLEGE

ENGLISH ELECTIVES

JOURNALISM (w/Honors Option)

[GRADES 9,10,11,12]

5 CR.

This student-centered workshop requires the ability to work independently and collaboratively. The primary objective for this course is to create a readable, interesting, student-generated school newspaper. With the guidance of a teacher facilitator, student editors (Honors) are responsible for leading the staff reporters. Editors will participate in the collaboratively written editorial and oversee the layout and general composition of The Falconaire. All students will interact daily to create the school paper, which is published as a website. Additionally, students will be required to keep and submit a classroom portfolio that provides proof of the writing process as they write articles on news, features, sports and opinion stories.

INTRODUCTION TO MINDFULNESS: CREATING A PERSONAL PRACTICE

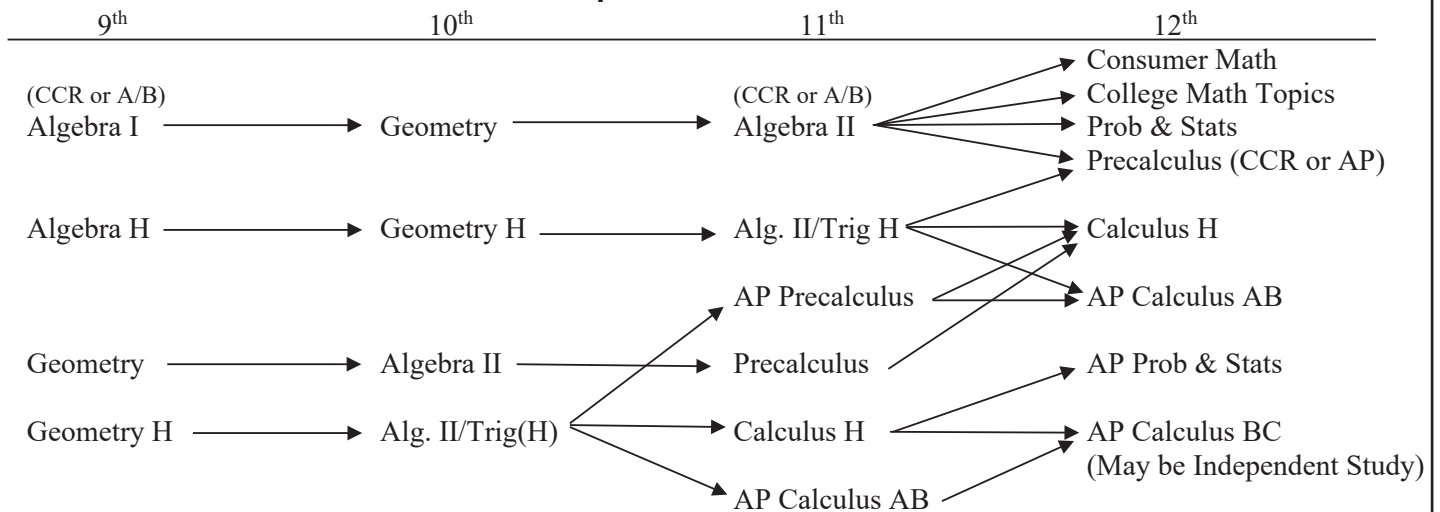
[GRADES 9, 10, 11, 12]

5 CR

Mindfulness is a nonjudgmental, moment by moment awareness of ourselves and the world around us. In other words, it involves paying attention to our thoughts, feelings, and reactions as well as being mindful of the way our environment and choices affect our thoughts, feelings, and reactions. As a result, this class will offer students a basic understanding of what mindfulness is and how they can apply it to their lives through Jon Kabat-Zinn's Mindfulness Based Stress Reduction Program and the 7 dimensions of Wellness, as outlined by Princeton University. Students will create self-awareness through practical application of each dimension, and lessons will include discussion, meditation/yoga, themed activities, project-based learning, service projects, and many opportunities for self-reflection. By the end of this course, you will have a variety of tools and techniques to take with you through the rest of your life.

MATHEMATICS

Mathematics Department Course Flow Chart



Although it is not fully represented on this flow chart, level changes up or down are always possible based on student performance and teacher recommendation.

Electives offered: Computer Science I, Computer Science II, AP Computer Science, AP Computer Science Principles, & Art of Problem Solving

ALGEBRA I A/B

[GRADE 9] (NCAA)

10 CR.

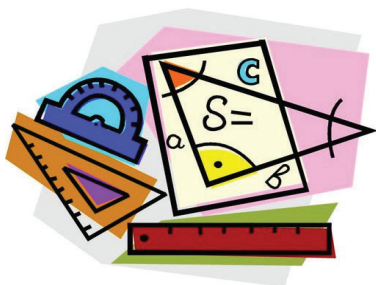
This course has the identical curriculum as Algebra I CCR; however, the course meets every day. Students who have previously struggled with mathematics are given the opportunity to succeed in a college prep level mathematics course. With more time for teacher guided practice, students are able to identify and address difficulties in class rather than at home. This course will help to address any deficiencies students may have previously experienced and pave the way for a smooth high school mathematics experience in 10th, 11th and 12th grade. This course is highly recommended for students looking to ease the anxiety or discomfort of learning mathematics. *This course still only fulfills 1 of the 3 math courses required by the state for graduation.*

ALGEBRA I (H/CCR)

[GRADE 9] (NCAA)

5 CR.

This is a course in the nature and use of variables. Emphasis is placed on the understanding and ability to use concepts, processes and principles of algebra in meaningful situations. Included in the course are algebraic expressions, functions, factoring, linear equations, graphing, quadratics, equations, rational numbers, and inequalities. The honors course is an advanced group of ninth graders that will extend into an introduction of Algebra II. Placement will depend on recommendation of the eighth grade teacher.



GEOMETRY (H/CCR)

[GRADES 9 & 10] (NCAA)

5 CR.

This course includes topics such as the understanding of basic geometric terms (e.g. point, ray, line, angle, plane, side, vertices, polygon, face, polyhedron, circle, sphere), standard notations (e.g. $\cdot$), properties of geometric figures, fundamental relationships between geometric figures (e.g., parallelism, perpendicularity, intersection, congruence, similarity), symmetry, transformations (rotations, reflections, translations, dilations), the rectangular coordinate system, measurable attributes (e.g., perimeter, circumference, area, surface area, volume, angle measure), standard and non-standard units of measure, dimensions, shapes, and properties of figures and objects, and right triangle relationships. Honors and CP are advanced groupings that delve deeper into mathematical inductive and deductive reasoning, logic, and proofs.

Prerequisite: Algebra I

ALGEBRA II A/B

[GRADES 11, 12]

10 CR.

This course has the identical curriculum as Algebra II CCR however, the course meets every day. This is a second year of Algebra with an emphasis on manipulative skill and mathematical reasoning. Included is a study of exponential and logarithmic functions, probability, trigonometry, and matrices.

Prerequisites: Algebra I and Geometry

ALGEBRA II (H with Trig/CCR)

[GRADES 10, 11] (NCAA)

5 CR.

This is a second year of Algebra with an emphasis on manipulative skill and mathematical reasoning. Included is a study of exponential and logarithmic functions, probability, trigonometry, and matrices. The honors course will also include sequences, series, a broader use of matrices and trigonometry. Note that students who did not have Algebra Honors at MRHS may have some gaps that should be remediated during the summer prior to starting the course. The summer assignment is a good tool for identifying those potential gaps.

Prerequisite: Algebra I

PRE-CALCULUS (CCR)

[GRADES 11, 12] (NCAA)

5 CR.

Pre-Calculus is geared toward giving the students experiences in the intuitive approaches to Calculus, while stressing the computational skills and conceptual clarity needed for the study of Calculus. This course will cover appropriate topics from elementary functions including exponential, logarithmic, and trigonometric functions, rational functions, determinants and matrices, mathematical induction, Binomial Theorem, probability, and Analytic Geometry.

Prerequisites: Algebra II and Geometry

AP PRECALCULUS

[GRADES 11,12] (NCAA)

5 CR.

In AP Precalculus, students explore everyday situations and phenomena using mathematical tools and lenses. Through regular practice, students build deep mastery of modeling and functions, and they examine scenarios through multiple representations. They will learn how to observe, explore, and build mathematical meaning from dynamic systems, an important practice for thriving in an ever-changing world. AP Precalculus prepares students for other college-level mathematics and science courses. The framework delineates content and skills common to college precalculus courses that are foundational for careers in mathematics, physics, biology, health science, social science, and data science.

Prerequisites: Algebra II/Trig H

CALCULUS (H)

[GRADES 11, 12] (NCAA)

5 CR.

This course is a full year course intended for students with a thorough knowledge of college preparatory mathematics including algebra, axiomatic geometry, trigonometry and functions. The core of the program consists of the basic ideas of analytic geometry and the basic techniques of differential and integral calculus together with applications. Included is the study of limits, continuity, differentiation, integration, transcendental functions, and applications

Prerequisite: Precalculus CCR, AP Precalculus, or Algebra II/Trig Honors

AP CALCULUS AB

[GRADES 11, 12] (NCAA)

5 CR.

Throughout this course you will study the change in functions numerically, graphically, analytically and verbally. As outlined by the College Board, the course will cover limits, continuity, differentiation and its applications, integration, and its applications. This course is equivalent to a semester of calculus in college and is designed to help you prepare for the AP Calculus AB Exam in May. The goal is to have all students able to earn a 3-5 on the exam, so be prepared and ready to work hard every day!

Prerequisite: Precalculus CCR, AP Precalculus, or Algebra II/Trig Honors

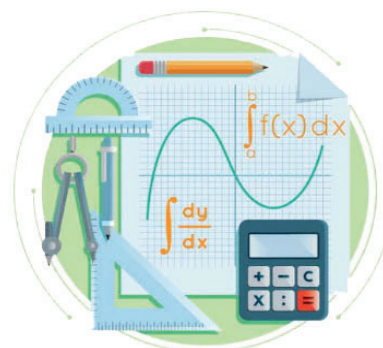
AP CALCULUS BC

[GRADE 12] (NCAA)

5 CR.

Students who have already completed the AP Calculus AB course or Calculus Honors course will take AP Calculus BC. The AP Calculus course covers all the same topics as AP Calculus AB and further includes sequences and series, polar coordinates, and parametric equations. AP Calculus BC is typically an independent study course. In this setting, students receive no direct classroom instruction time and are expected to do the necessary study on their own. Students will prepare for the AP Calculus BC exam through extensive research, independent learning, and practice. This course is equivalent to 2 semesters of calculus in college.

Prerequisite: AP Calculus AB or Calculus Honors



PROBABILITY & STATISTICS (AP/CCR)

[GRADES 11, 12] (NCAA) 5 CR.

Statistics is the science of organizing, analyzing and interpreting data in order to make decisions. An important tool in this study is probability, the mathematics of chance. The goal of this course is to have students not only learn the processes and methods for analyzing data, but to see applications in the many fields of study that use statistics. Through projects, experiments and case studies, students are able to see how data is used to make decisions every day. The CCR class will prepare students heading to college for an introductory college statistics course. The AP class will prepare students for the Advanced Placement examination in statistics. Through class activities and case studies, students have the chance to see the importance of good data collection and analysis, as well as the decisions that are made with these studies.
Prerequisite: Algebra II

COLLEGE MATH TOPICS (CCR)

[GRADE 12] (NCAA) 5 CR.

College Math Topics is a senior-only course geared toward helping seniors prepare for college entrance exams, SATs, and first year college math courses. Topics will include Operations with integers; Fractions, decimals, & percent; Applications & problem solving; Algebraic operations, equations & inequalities; Coordinate Geometry; Functions; Probability; Trigonometry; and Exponential & Logarithmic expressions & equations. The course is focused on those students who have successfully completed Algebra I, Geometry, & Algebra II but do not feel ready for Precalculus just yet.
Prerequisites: Algebra I, Geometry, & Algebra II

CONSUMER MATHEMATICS (CCR)

[GRADES 11, 12] 5 CR.

Satisfies the Financial Literacy graduation requirement.

This course answers the question, “**WHEN AM I EVER GOING TO USE THIS?**” Use the practical math needed in everyday life by working through real world situations: earning income, paying taxes, using bank accounts, credit cards, and loans. Determine the cost of owning a car, renting an apartment, and buying a house. Evaluate the different types of investments and insurance which you will purchase in the future.

THE ART OF PROBLEM SOLVING (H)

[GRADES 10, 11, 12] 5 CR.

The Art of Problem Solving is focused on the use of creative methods to solve problems. Students are discouraged to use rote memorization but rather creative spontaneous thinking. Mathematical problem solving involves using all the tools at one's disposal to attack a problem in a new way. Students taking AoPS will be challenged to solve math problems designed to elicit multiple thought processes and/or multiple solutions.
Prerequisite: Algebra I and Geometry



COMPUTER SCIENCE I (PRA)

[GRADES 9, 10, 11, 12] 5 CR.

Our Computer Science I curriculum is a deep dive into the fundamentals of programming concepts and teaches text-based coding. Computer Science I is predicated on the notion that learning about programming and computer science should be fun and engaging. In this course we expose students to graphics-based problem solving because it is visually engaging, allows for multiple correct solutions, and provides visual cues when a solution goes awry. Students in this course should be prepared to persevere through common challenges that emerge in the world of coding. *As a logic-based course, a strong Algebraic foundation is recommended.*

COMPUTER SCIENCE II (H) (PRA)

[GRADES 10, 11, 12] 5 CR.

This course is designed for students who have a strong foundation and interest in computer science. Students will develop a deeper understanding of syntax and style while developing interactive sites, games and programs using text-based coding.
Prerequisite: Minimum grade of 90 in Computer Science I and teacher recommendation.

AP COMPUTER SCIENCE PRINCIPLES (PRA)

[GRADES 9, 10, 11, 12] 5 CR.

This course offers a multidisciplinary approach to teaching the underlying principles of computation. The course will introduce students to the creative aspects of programming, abstractions, algorithms, large data sets, the Internet, cybersecurity concerns, and computing impacts. AP Computer Science Principles will give students the opportunity to use technology to address real-world problems and build relevant solutions. The course focuses on the innovative aspects of computing as well as the computational thinking practices that help students see how computing is relevant to many areas of their everyday lives. The course is unique in its focus on fostering students to be creative. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using simulations to explore questions that interest them. Rather than teaching a particular programming language or tool, the course focuses on using technology and programming as a means to solve computational problems and create exciting and personally relevant artifacts. The course encourages the students to struggle through a process in order to reach a desired solution, a skill that will benefit them in nearly all career aspects and fields of study.

AP COMPUTER SCIENCE (PRA)

[GRADE 12] 5 CR.

This course emphasizes object-oriented programming methodology with a concentration on problem solving and algorithm development, and is meant to be the equivalent of a first-semester college-level course in computer science. It also includes the study of data structures, design and abstraction. Enrollment is limited to those students who possess the ability and motivation necessary for a college level course.
Prerequisite: Minimum grade of 92 in Computer Science II.

(meets the Visual and Performing Arts graduation requirement)

AP MUSIC THEORY

[GRADES 9,10,11,12] 5 CR.

Students should be able to read and write musical notation, and it is strongly recommended that the student has acquired at least basic performance skills in voice or an instrument. Advanced subjects will include relative major and minor keys, advanced part writing, fugue analysis, pitches, intervals, complex meter and complex musical form. Students will be given the opportunity to take the AP Music Theory Exam to receive college credit. Prerequisite: It is recommended that students take Music Theory

BAND

[GRADES 9, 10, 11, 12] 5 CR.

This course is designed to teach students how to play a specific instrument with an emphasis on the preparation and performance of classic band literature. Students interested in instrumental should be enrolled in this course. Performances include concerts during the school year (winter and spring). Students are encouraged to participate in a rotating lesson schedule where they will receive private instruction to further their playing abilities.

BROADWAY 101: MUSICAL STAGECRAFT

[GRADE 9, 10, 11, 12] 5 CR.

Requirement for PAA
Students will learn the technical, directing, and acting aspects of putting on a Broadway play/musical: set design and building/painting advertising/posters/commercials, costume design, make-up, prop design, sound and lighting design. Students will be able to immerse themselves in all aspects of stagecraft creating mood and atmosphere in all aspects of design, as well as basic acting and directing techniques.

CHORUS

[GRADES 9, 10, 11, 12] 5 CR.

PAA Requirement
This class is open to all students at Monmouth Regional regardless of previous vocal abilities. The only prerequisite is a desire to sing and enjoy a variety of music ranging from classical, Broadway, Jazz, Popular, and Modern genres. The chorus performs in public events at least four times a year, including a winter and spring concert, among other functions for the school. Students are encouraged to participate in a rotating lesson schedule where they will receive private instruction to further their vocal abilities.

GUITAR TECHNIQUES

[GRADES 9,10, 11, 12] 5 CR.

Students will learn the fundamentals of playing the guitar. All genres of music will be discussed and applied. Acoustic and Electric guitar workshops will be provided. Students will be able to learn how to read guitar music and learn basic techniques such as guitar tabs, chord structures, and finger-picking styles.

GUITAR TECHNIQUES II

[GRADES 10, 11, 12] 5 CR.

This course builds upon the techniques learned in the Guitar Techniques class. Students will learn more advanced guitar techniques. A variety of guitar styles will be covered. Acoustic and electric guitar will be discussed and applied.

Prerequisite: Guitar Techniques I

THE HISTORY OF AMERICAN POPULAR MUSIC

[GRADES 9, 10, 11, 12] 5 CR.

Popular Music in America has reached epic and global proportions, with influences to music all over the world. This course will explore the different styles and genres of music that originated and developed in the United States including Jazz, R&B, Rock and Roll, Broadway, and Pop. The course will explore the history of American Music from the 1920s to present day, with much discussion on its influence in the social, political, and cultural norms that helped shape our nation. There is no prerequisite required for this course. Previous musicality experience is not required.

MUSIC APPRECIATION

[GRADES 9, 10, 11, 12] 5 CR.

Music Appreciation is open to all students at Monmouth Regional. Students will learn the basic elements of music in a non-performance setting. This course is recommended to all students who are not interested in performing music, but learning about music. Students will explore the elements of classical, jazz, blues, rock and roll, pop, and hip hop in this course.

MUSIC PRODUCTION & TECHNOLOGY

[GRADES 9, 10, 11, 12] 5 CR.

Want to produce your own song? Students will learn the basics of keyboards and synthesizers as well as how to produce your own song. Students will be able to work on the various software programs being used to produce music today such as finale and sybellius. This course will also delve into how to arrange music and create your own compositions from scratch.

MUSIC THEORY

[GRADES 9,10,11,12] 5 CR.

Students learn that music is a math, science and a universal language. Music theory is an introductory course in the theoretical aspects of music. Included is a study of the basic rudiments of harmony and the basic methods of music technology. This course is open to students with musical experience and will include advanced ear training, sight reading/singing and writing music. Topics covered: Time signatures, key signatures, modulations, chord structures, basic note reading, treble and bass clefs, different instruments and their categories, the circle of fifths, chord symbols, jazz and classical notation and transportation. *Students enrolled in this course should be able to read music*

MUSICAL THEATER PERFORMANCE

[GRADES 9, 10, 11, 12] 5 CR.

Musical Theater Performance will serve as an elective for Performing Arts Academy students. Students will learn how to prepare themselves for higher education, regional, and professional musical theater work. Students will feel comfortable in audition settings and the proper way to present themselves upon entering the room. Students will understand all the elements of musical theater scene study and how to connect text to song, analyzing musical characteristics such as dynamics and personification. Students will build a strong audition book with all musical genres covered. To set this class apart from the designated audition class, the instructor will set classes in a "performance hour" structure or a "musical theater performance" class structure. Students attending school for musical theatre will encounter many classes such as this in their higher education.

PERFORMING ARTS ACADEMY SENIOR EXPERIENCE

Requirement for PAA
[GRADE 12] 5 CR.

The Performing Arts Academy (PAA) believes in the incorporation of real world experience via an internship program. Throughout their senior year, students will be required to participate in an approved learning experience in the Performing Arts. These experiences provides the advanced student with an opportunity to participate in programs within our community. In addition, to the experiences students will create a final portfolio and an approved final project that will be presented to the PAA.

ROTATING LESSON SCHEDULE

[GRADES 9, 10, 11, 12]
Rotating lessons are encouraged of all instrumental students enrolled in Band or Chorus. The schedule provides each student with small group instruction on their particular instrument or voice part. Students are strongly encouraged to participate in these lessons not only to strengthen their own personal abilities as a musician, but to strengthen the core of the Monmouth Regional Music ensembles. *Lessons are held during the student's lunch block. Students do not receive academic credit for taking lessons.*

PHYSICAL EDUCATION, HEALTH AND SAFETY

PHYSICAL EDUCATION

[GRADES 9,10,11,12] - 3 marking periods

3.75 CR

Each student is scheduled for a combination of Health and Physical Education each year they attend Monmouth Regional. All health classes and physical education classes are co-ed. Students spend one quarter in Health Education and three quarters in Physical Education. Grades are separate, and are part of a students' total grade point average. *Grading is based on participation in all activities. Excessive absences of 8 or more will result in a grade of 50, absences between 5-7 will result in a grade of 60. All students are given the opportunity to make up missed classes.* The physical education program is co-ed and offers a wide variety of team and individual activities. We offer many traditional activities like basketball, floor hockey, volleyball, softball, football, soccer, tennis, weight room, but we take special pride in a few of our electives as well such as; yoga, bocce, horseshoes, ultimate Frisbee, table tennis, badminton, boccer, cardio fitness, scooters, Pilates, pickle ball, whiffle ball, and high and low adventure education. Achieving personal fitness and participating in life-time activities are two major goals of the department. We are fortunate to be one of only a hand full of schools in the area to have a low and high element adventure course on school grounds. The low course involve cooperative games, balance platforms, and team building activities. The high course includes a 30' climbing tower a 200' zip line, and 6 other challenge activities that are suspended 30' off the ground. This activity is "challenge by choice". All students who choose this activity are taught how to work in groups, harness procedures, belay techniques, and rope tying. Many students overcome their fear of heights and/or just choose to be a permanent belay person to be involved in this sought after activity.



HEALTH 9

[GRADE 9]

1.25 CR

This course addresses the biological, sociological, cultural and psychological components of decision-making, family relationships, alcohol awareness, drugs, tobacco, sexually transmitted disease, abstinence, contraception, conception, and male/female reproductive system. The program will provide students with the skills necessary to communicate effectively and make responsible decisions throughout life.

HEALTH 10- DRIVER EDUCATION

[GRADE 10]

1.25 CR

This course is offered during the first half (either 1st or 2nd marking period) of the school year for all sophomores. This is a comprehensive Driver Education program, which covers topics like, vehicle maintenance, managing risks, rules of the road, safety awareness, accident and injury prevention, and good attitudes behind the wheel can give students the tools to put into practice every day. In today's society, students are also introduced to the Graduated Driver's License Program. This Program includes Special Learners Permits vs. Examination Permits, Restricted vs. Unrestricted drivers licenses, New Blood Alcohol Content Specifications, Vehicle control, Natural Laws, Basic Maneuvers, and Handling Emergencies. At the conclusion of the course the students will be given the NJ Motor Vehicle State exam. The written test score is valid until the students turn 18.

HEALTH 11-FIRST AID

[GRADE 11]

1.25 CR

The junior health curriculum is multidimensional. It meets all the required core curriculum standards and the MRHS Philosophy of health education. This curriculum is to provide all students the proper knowledge needed to treat, care, prevent, and stabilize all bodily injuries obtained through various incidences that may be encountered throughout their lives and understand environmental dangers to include infectious diseases. First Aid and CPR are vital procedures practiced and taught to students so that the proper temporary treatment can be used to save others in case of an emergency. Students will be given an opportunity to become certified in CPR/First aid in an after school program.

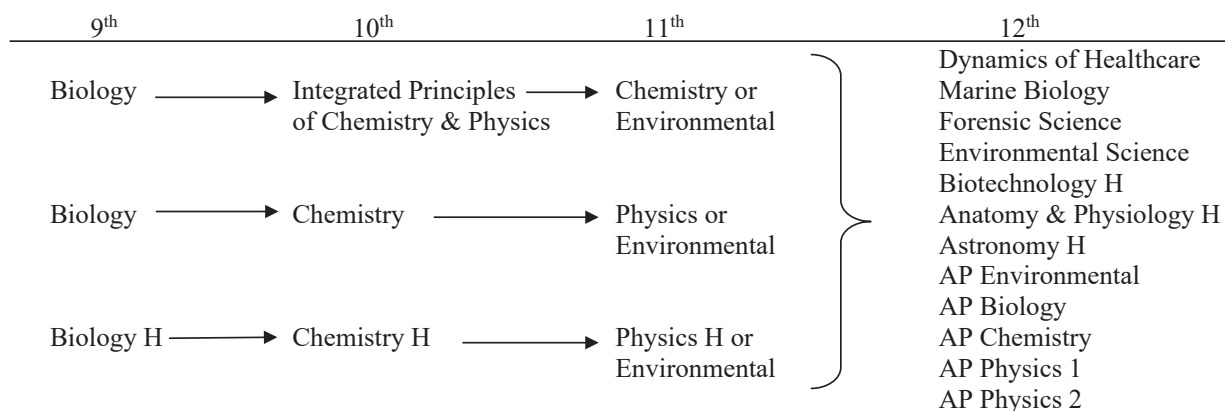
HEALTH 12-FAMILY LIFE EDUCATION

[GRADE 12]

1.25 CR

This course cover a wide array of life skills which include but not limited to; relationships, sexuality, communication, decision making, finances, male/female anatomy and reproduction, death/dying and suicide awareness.

Science Department Course Flow Chart



The list of courses under 12th grade are suggested fourth year elective science courses. Some of these courses may also be taken concurrently with a student's required lab science in 10th or 11th grade as an elective. Please reference the course descriptions for prerequisites.

BIOLOGY (H/ CCR)

[GRADE 9] (NCAA)

5 CR.

Biology is a course based on a study of structures and functions of living organisms and their interactions with the environment. Students enrolled in Biology explore the functions and processes of cells, tissues, and systems within various species of living organisms and the roles and interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students work with concepts, principles, and theories of the living environment. In addition, students enrolled in this course are expected to: (1) gain an understanding of the history and development of biological knowledge; (2) explore the uses of biology in various careers; and (3) investigate biological questions and problems related to personal needs and societal issues.

INTEGRATED PRINCIPLES OF CHEMISTRY & PHYSICS

[GRADE 10] (NCAA)

5 CR.

The concepts for this course have been taken from the NGSS important to the study of Chemistry and Physics. It is a college preparatory course, however the emphasis of the course is on developing math and study skills as well as addressing the prerequisite content necessary for success in future science courses in high school and college. Inquiry and skill building techniques are developed through class work, laboratory work, and homework activities. The materials of the course have been developed to interrelate the physical sciences with technology and career opportunities.

Prerequisite: Biology

CHEMISTRY (H/ CCR)

[GRADES 10, 11] (NCAA)

5 CR.

Chemistry is a course based on regular laboratory investigations of matter, chemical reactions, and the role of energy in those reactions. Students enrolled in Chemistry compare, contrast, and synthesize useful models of the structure and properties of matter and the mechanisms of its interactions. The course content includes the study of atomic structure, chemical bonding, reactions, mass relationships in reactions, gasses, liquids, solids, solutions, acids and bases, kinetics and equilibrium, oxidation and reduction, and nuclear chemistry. In addition, students enrolled in this course are expected to: (1) gain an understanding of the history of chemistry, (2) explore the uses of chemistry in various careers, (3) investigate chemical questions and problems related to personal needs and societal issues, and (4) learn and practice laboratory safety. This course also includes mathematical problem solving. Purchase of a calculator that can handle exponential numbers and logarithms is recommended.

Prerequisite: Must have completed Biology and Algebra I

PHYSICS (H/ CCR)

[GRADES 11, 12] (NCAA)

5 CR.

Physics is the study of the fundamental laws that govern the universe. The topics covered in this course include motion, force, gravity, momentum, energy, heat, fluids, waves, light, optics, electricity, magnetism, and the structure of the atom. The course emphasizes both fundamental concepts and practical applications of physics. Mathematical problem solving is a key element of the course, so students will learn to apply algebra and basic trigonometry to the solution of physics problems. Classroom activities will include lectures, classroom discussions, readings, laboratory experiments, and assessment activities.

Prerequisite: Chemistry and Geometry. For Honors Physics, it is recommended that students have completed Pre-Calculus or Algebra II/Trig Honors (or be taking one of them concurrently)

ENVIRONMENTAL SCIENCE

[GRADES 11, 12] (NCAA)

5 CR.

Environmental Science will provide students with the scientific principles, concepts, and methodologies required to understand the inter-relationships 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 or preventing them. This is an interdisciplinary course that embraces a wide variety of topics from different areas of study.

Prerequisites: Biology and Chemistry or Integrated Principles of Chemistry & Physics

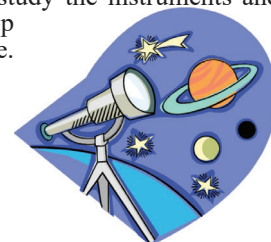
ASTRONOMY (H)

[GRADE 11, 12]

5CR

In this class, we will start with "classical" astronomy, describing the night sky as was observed in ancient times. We will then embark on a journey, starting from here on Earth and progressing outward, to study the Solar system, stars, the Milky Way and other galaxies, as well as the strange objects we observe in deep space—black holes, quasars, and supernovae. We will end our journey with a study of what scientists now know about the large-scale structure of the cosmos. Along the way we will study the instruments and methods that have been used to develop our current understanding of the universe.

Prerequisites: Algebra I, Geometry, and Chemistry (or may be taking Chemistry concurrently)



MARINE SCIENCE (CCR)

[GRADES 11, 12] (NCAA) 5 CR.

This course studies the biological, chemical, and physical effects of various environments on the ocean. Students will study many of the inhabitants of the ocean to include their interactions and special needs. The course also includes an in-depth study of other areas of the environment. Students will have the opportunity to participate in “hands on” problem solving activities both individually and as a group, as well as complete outdoor experiments. Students taking this course will have an opportunity to earn their NJ boating license.

Prerequisite: Biology and either Integrated Principles of Chemistry & Physics or Chemistry

FORENSIC SCIENCE (CCR)

[GRADES 11, 12] (NCAA) 5 CR.

Forensic Science will be a process-oriented course that highlights problem solving and laboratory practices. The course is designed to make the learning process more active. The course will present students with real problems from the perspective of a technician working in a laboratory and will expose students to a wide variety of skills that can be used in any laboratory setting. Topics to be covered include, but are not limited to, evidence collection, hairs, fibers, fingerprints, DNA, blood spatter, toxicology, document analysis, anthropology, ballistics, casts and impressions. At the completion of the course-work students will be put in the role of a crime scene investigator and asked to analyze and evaluate various pieces of evidence in order to solve a fictitious crime.

Prerequisites: Biology, Chemistry or Integrated Principles of Chemistry & Physics after Chemistry.

BIOTECHNOLOGY (H)

[GRADE 11, 12] (NCAA) 5 CR.

This course is designed to give the college-bound student a comprehensive introduction to the scientific concepts and laboratory techniques currently used in the field of Biotechnology. Students will attain knowledge about the field of Biotechnology and associated biology concepts, participate in class discussions, apply what they learned in laboratory experiments, and then communicate their results in a manner that models how it is done in the biotechnology industry. Students will also be exposed to the fields of Bioethics and Bioinformatics (basic computer science) as well as other career opportunities as they apply to the class. Biotechnology Lab is a good choice for any student interested in pursuing a STEAM field after high school.

Prerequisite: Biology

ANATOMY AND PHYSIOLOGY LAB (H)

[GRADES 11, 12] (NCAA) 5 CR.

This lab-oriented course is designed for the college bound student. Students will gather information about the structure and function of the organizational levels of the human body including the impact of genetics. Students will apply critical thinking and laboratory skills to increase their understanding of the topics. Good course for those planning to enter medical fields. Students have the option to enroll in Rutgers School of Health Professions (exam fee \$85) and earn 4 credits with the successful completion of the Rutgers Exam. With a score of 73 or better students may request a transcript from RU. Please note earning Rutgers credit is optional and students may enroll in the course for high school credit only.

Prerequisite: Biology (Dynamics in Health Care for those wishing to earn college credits)

DYNAMICS OF HEALTH CARE IN SOCIETY

[GRADES 10, 11, 12] 5 CR.

(3 Rutgers College Credits*)

This course provides an orientation to health care services and their delivery. It presents an interdisciplinary perspective, focusing on process skills such as critical thinking, ethical reasoning, effective communication and ways to continue independent learning throughout life. The course shows how all health care providers acquire professional competence in dealing with the issues and problems they face as well as the role they play as informed consumers. Students have the option to enroll in Rutgers School of Health Professions (exam fee of \$85) and earn 3 credits through the successful completion of the Rutgers exam. With a score of 73 or better students may request a transcript from RU. Please note that earning Rutgers credit is optional and students may enroll in this course for high school credit only.

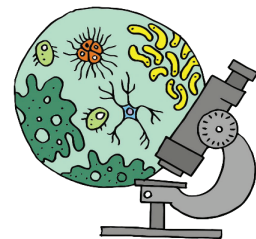
Prerequisite: C or better in Biology and Algebra

AP BIOLOGY

[GRADES 9, 10, 11, 12] (NCAA) 5 CR.

The Advanced Placement Biology course is designed to be the equivalent of a college introductory biology course usually taken by biology majors during their first year. After showing themselves to be qualified on the AP Examination, some students as college freshmen, are permitted to undertake upper-level courses in biology or register for a course for which biology is a prerequisite. This course is designed to be taken only after successful completion of the high school biology, chemistry, and physics courses. The topics covered will be the same as offered in a first year college course. At the end of the year students will have the option of taking the Advanced Placement Exam.

Prerequisites: Biology & Chemistry, or departmental approval



AP CHEMISTRY

[GRADES 10, 11, 12] (NCAA) 5 CR.

The Advanced Placement Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course would enable them to obtain advanced standing in chemistry when they go to college. This course is designed to be taken only after successful completion of the high school chemistry and physics course. Senior Physics students may enroll also in AP Chemistry with department approval. Students will be expected to attain a depth of understanding of fundamentals and a reasoning competence in dealing with chemical problems. It is assumed that the student will spend approximately six hours a week in unsupervised individual study. The Advanced Placement course will include double laboratory periods the same as chemistry and physics. The topics covered will generally be the same as in first year chemistry. There will be greater emphasis on laboratory work, chemical calculations, and the area of organic chemistry. At the end of the year the student will have the option to take the Advanced Placement Examination given by the College Board.

Prerequisite: Biology & Chemistry.

AP ENVIRONMENTAL SCIENCE

[GRADES 11, 12] (NCAA) 5 CR.

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the inter-relationships 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 or preventing them. This is an interdisciplinary course that embraces a wide variety of topics from different areas of study.

Prerequisites: Biology, Chemistry, and Algebra I

SCIENCE

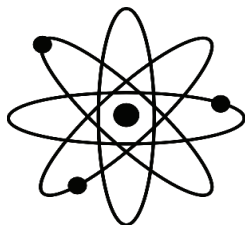
AP PHYSICS 1

[GRADES 11, 12] (NCAA)

5 CR.

AP Physics 1 is a full-year course that is the equivalent of a first-semester introductory college course in algebra-based physics. Students cultivate their understanding of physics through inquiry-based investigations as they explore the following topics: kinematics, dynamics, circular motion and gravitation, energy, momentum, simple harmonic motion, torque and rotational motion, electric charge and electric force, DC circuits, and mechanical waves and sound. Students will be highly encouraged to take the Advanced Placement exam.

Prerequisite: Chemistry or Physics. Students should have completed Geometry and be concurrently taking Algebra II or Algebra II/Trig Honors.



AP PHYSICS 2

[GRADES 11, 12] (NCAA)

5 CR.

AP Physics 2 is a full-year course that is the equivalent of a second-semester introductory college course in algebra-based physics. Students cultivate their understanding of physics through inquiry-based investigations as they explore these topics: fluids; thermodynamics; electrical force, field, and potential; electric circuits; magnetism and electromagnetic induction; geometric and physical optics; and quantum, atomic, and nuclear physics. Students will be highly encouraged to take the Advanced Placement exam.

Prerequisite: Students should have completed AP Physics 1 or Honors Physics (with Departmental permission) and should have taken or be concurrently taking Pre-Calculus.

SOCIAL STUDIES

WORLD HISTORY (HONORS/CCR)

[GRADES 9, 10, 11, 12] (NCAA)

5 CR

World History is one of three Social Studies courses required for graduation. Beginning with the Emergence of the First Global Age, this course establishes the foundation for the study of the Early Modern Period to the present. The focus is worldwide in scope and provides students an historical context for the study of important movements, significant people, and major turning points. Particular emphasis will be placed on the political, social, economic and cultural aspects of each society. World History will also familiarize students with the geography of the contemporary world. The course also emphasizes key historical thinking skills, including comparison, cause and effect, continuity and change, historical argumentation, and document analysis.

US HISTORY I (HONORS/CCR)

[GRADES 10, 11, 12] (NCAA)

5 CR

United States History I is the second of three Social Studies courses required for graduation. The course of study spans the era of colonization up to Reconstruction. A major focus of study includes an examination of political, social and economic events that have helped shape the character of the nation and the citizens. This course reflects the conviction that good citizenship in a democratic society is predicated on knowledge of society's past and an understanding of how it works. The course also emphasizes key historical thinking skills, including comparison, cause and effect, continuity and change, historical argumentation, and document analysis. The Honors level US I History course can be considered a bridge to the AP US History course, and will emphasize many of the same skills that students will need to be successful in the AP History class, including a unit on learning how to write research papers.

US HISTORY II (HONORS/CCR)

[GRADES 11, 12] (NCAA)

5 CR

United States History II is the last of the three Social Studies requirements for graduation. This course is the continuation of a successfully completed United States History I. Starting with the Gilded Age, students will examine how social justice movements transformed American society, how the US emerged as a world power, how the US helped transform the global economy, and how globalization affected US foreign policy. Students will explore these issues from a national and international perspective. The course also emphasizes key historical thinking skills, including comparison, cause and effect, continuity and change, historical argumentation, and document analysis. A term paper or research project is a course requirement.

AP WORLD HISTORY: MODERN

[GRADE 9] (NCAA)

5 CR.

What makes this course interesting? (As outlined in the College Board's AP Students section of AP World History) * Focus on the development of practices and skills, not just the collection and memorization of information and events * Learn how to analyze a point of view and to interpret historical evidence you can use to build and support an argument * Learn to weigh evidence and interpretations as you build your knowledge of world historical processes and themes. Develop your ability to draw conclusions and use informed reasoning to present your arguments clearly and persuasively in essay format. AP World History is designed to be the equivalent of a semester introductory college or university world history course. In AP World History students investigate significant events, individuals, developments, and processes in six historical periods from approximately 1200 to the present. Students develop and use the same skills, practices, and methods employed by historians: analyzing primary and secondary sources; developing historical arguments; making historical comparisons; and utilizing reasoning about contextualization, causation, and continuity and change over time. The course provides five themes that students explore throughout the course in order to make connections among historical developments in different times and places: interaction between humans and the environment; development and interaction of cultures; state building, expansion, and conflict; creation, expansion, and interaction of economic systems; and development and transformation of social structures.

AP US HISTORY

[GRADES 11,12] (NCAA)

5 CR.

This course is an intensive and quick-paced study of United States History. It will cover the significant political, social, economic and cultural events in United States History from the Colonial Days until the present (all of US I and US II curriculum). The course requires a great deal of reading and writing and is a large time commitment. Emphasis is placed on both content and historical thinking skills. Students will be urged to take the Advanced Placement Exam. There is a research paper requirement. Students are encouraged to have a strong content knowledge of US I History and be able to interpret and analyze primary and secondary sources and are encouraged to be familiar with the skills needed for writing Document Based Question (DBQ) essays. This course may be substituted for United States History II.

AP ECONOMICS (PRA)

[GRADES 11, 12] (NCAA)

5 CR.

Satisfies the Financial Literacy graduation requirement.

This accelerated course provides students with an understanding of the principles of economics and how economists use those principles to examine economic behavior. The course places particular emphasis on the study of national income and price-level determination, as well as develops students' familiarity with economic performance measures, the financial sector, economic growth, and international economics. Active learning and critical decision making will be encouraged by the use of real world simulations, small group presentations and cooperative learning activities. The course will prepare students for the AP exam in Economics. Prerequisite: Intro to Business or Intro to Economics

AP HUMAN GEOGRAPHY

[GRADES 10, 11, 12] (NCAA)

5 CR.

AP Human Geography is a year-long elective course. The purpose of AP Human Geography is to get students thinking geographically – asking “where” and “why” questions about patterns we can visually map on the Earth’s surface. The distribution of people and resources have important implications in the world today, and students will leave this class with a better understanding of global issues, current events, and how to make the world a better place. The purpose of the AP Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth’s surface. Human geography incorporates the concepts and methods associated with several of the disciplines within the social sciences, including economics, geography, history, and sociology. The course topics include the following:

- Geography: Its Nature and Perspectives
- Population
- Cultural Patterns and Processes
- Political Organization of Space
- Agriculture and Rural Land Use
- Industrialization and Economic Development
- Cities and Urban Land Use

The AP Human Geography course at Monmouth Regional High School has been designed according to the course description set forth by The College Board. All students will be encouraged to take the AP test in May.

AP LITERATURE AND COMPOSITION A/B

[GRADE 12] (NCAA)

10 CR.

The English and Social Studies departments collaborate in the instruction and design of this course which offers daily classes and a double AP grade multiplier. A hands-on approach merges knowledge from several fields of world culture: literature, history, philosophy, music and the arts of selected historical periods. Combined with the individual expertise of the social studies and English teachers, an interdisciplinary approach to culture is the goal. Students examine the context in which various works of literature were produced. As part of the AP English Literature and Composition curriculum, students cultivate their understanding of literature through reading and analyzing texts as they explore concepts like character, setting, structure, perspective, figurative language, and literary analysis in the context of literary works. In addition, this course prepares students for the AP English Literature and Composition exam providing them with another way to earn college credit while in a high school classroom. Students may also earn college credit for this course through a partnership with Seton Hall University. Seton Hall University offers 6 credits for AP Humanities. This credit is transferrable nationally through Seton Hall’s Project Acceleration Program. The current cost is \$110.00 a credit. Registration for the Seton Hall option is available in the fall semester. **All students are required to complete a summer reading assignment before the first day of school. Assignments are posted online.**

AP PSYCHOLOGY

[GRADES 11,12] (NCAA)

5 CR.

The AP Psychology course is a college level class designed to introduce students to the study of behavior and mental processes (thinking/feeling). We will be exploring many of the major fields of psychology including: social psychology, research, biology of behavior, gender, human development, personality, learning, cognition, emotions, stress and health and abnormal psychology. We will also spend time exploring the emerging area of positive psychology. For many students, the study of psychology is very different from other subjects studied. It requires you to think abstractly and to learn by applying and questioning both the theories studied and their own experiences. This course will help you understand what makes “you” happy and how to increase your sense of optimism. Students should expect significant reading, writing, experiments/activities and projects throughout the year. Students will be highly encouraged to take the Advanced Placement exam in May.

AP US GOVERNMENT & POLITICS

[GRADES 11,12] (NCAA)

5 CR.

This course deals with the nature of the American political system, its development over the past two hundred years and how it affects us today. The main focus will be the national government and national politics. Each branch of the government will be studied in depth. The government bureaucracy, the political party system, campaigns, elections, and the policy making machinery will be examined. The course will also explore how social media, satire, and “fake news” affect the modern political process. Students who enroll in this course will also engage in thoughtful political discussion, debates, and Socratic seminars involving current political issues. Students will be highly encouraged to take the Advanced Placement exam in American Government and Politics.



THE HOLOCAUST, GENOCIDE AND MODERN HUMANITY (H)

[GRADES 12] (NCAA)

5 CR.

This course will introduce the history of the European Holocaust and address the wider questions of genocide in the modern world. Examination of these events in comparative context (including such events as Armenian, Stalinist and Cambodian massacres and the Rwandan and Darfur genocides) and discussion of their impact on modern cultural, political and intellectual developments will be explored. Students will be exposed to some of the greatest moral and ethical dilemmas in modern history to examine the notion of humanity. How does an understanding of the origins and virulence of genocide challenge societies to be more tolerant, pluralistic and open? This is an interdisciplinary course drawing from history and the humanities, the social sciences and education. *Students successfully completing this course are eligible for college credit with our partnership with Kean University. The cost for this course is \$300.00.*

ASIAN AMERICAN STUDIES

[GRADES 10, 11, 12]

5 CR.

The purpose of this course is to study the history of Asian Americans in America. It will cover an overview of Asian American history, how it relates to American history and culture as well as its relevance for contemporary Asian American issues. It will cover a great deal of general topics such as, but not limited to, history, literature, sociology, gender/sexuality studies, and pop culture.

CIVICS

[GRADES 9, 10, 11, 12]

5 CR.

Students will study the foundations of American democracy and the origins of American government and how all three levels of government work together. Emphasis is placed on the Constitution and the rights and responsibilities of citizens in a democratic society, including a focus on state & local government. In addition, the roles of political parties, campaigns & elections, public opinion, and the media will also be considered.

INTRODUCTION TO ECONOMICS

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

This course aims to provide students with an understanding and functional knowledge in economics in order to become informed consumers, producers, and citizens in today's world. Economics is the study of how individuals, businesses, and governments make decisions about the use of scarce resources in a world of unlimited wants and needs. This is done at both the microeconomic and macroeconomic level, both of which will be examined in detail. At the microeconomic level, students will investigate the smaller units of the economy and individual firms and markets. In macroeconomics, students will study the global economy and economics of nations and governments as they try to foster growth and stability. Active learning and critical decision making will be encouraged by the use of real world simulations, small group presentations and cooperative learning activities. The course is useful in helping students to acquire many life skills, and also in establishing a foundation for more advanced study of economics. *Satisfies the Financial Literacy graduation requirement.*



INTRODUCTION TO PSYCHOLOGY

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

Psychology is the study of human behavior, emotions and mental processes. In this project based class, discover the wonders of the brain and behavior; learn how to get rid of nasty habits; investigate the mysteries of sleep and dreams; find out if opposites attract; discover the difference between multiple personality and schizophrenia; uncover the meaning of emotions and motivation and more in this elective offered by the Social Studies Department. Throughout the year we will try and answer some of today's most pressing social issues on such topics as mental disorders, suicide, drug and alcohol abuse and criminal actions to name a few. Students will be introduced to most of the major topics of Psychology through the use of video case studies and independent investigations.

LAW AND POPULAR CULTURE

[GRADES 10, 11, 12]

5 CR.

An emerging area of study focusing on the connection between law and justice, in contemporary society. Students will be engaged in a critical examination of aspects of the legal system in comparison with media portrayal. Students will have an opportunity to engage in authentic learning activities like discussions, debates, mock trials, court simulations, guest speakers, and field trips. During the course of the year, students will utilize various methods of problem solving as a tool for survival in our society while preparing them to become actively engaged citizens. By the end of this course, students will be able to analyze the law in relation to popular culture to determine how these two important subjects impact and influence the world around them.

SOCIOLOGY/MINORITIES

[GRADES 10, 11, 12] (NCAA)

5 CR.

WANTED! Students for an innovative, eye-opening academic experience! Take part in an elective that is like no other course you've taken before! The entire course has been dedicated to YOU! Through exciting, varied, student-centered teaching techniques we will explore the answers to some very important questions. Do you know who you are? Do you have an idea of the person you want to be? Do you want to better understand those around you? How are you influenced by social forces such as TV, movies, music, family and friends? Throughout the year, you will develop a "sociological imagination" and explore in depth the concept of American culture. In addition, you will search for human consciousness as you examine the experiences of various minority groups in America.

SPECIAL EDUCATION

For students that are classified, the special education department offers a comprehensive list of programs in order to accommodate the various educational needs of students. Monmouth Regional High School programs for special education student include general education with supports, in-class resource, resource room and self-contained settings. A student's academic, social and behavioral needs are considered when developing a student's individual program. Special education programs provide classified students with all the required courses as outlined in the student's IEP and in compliance with the district's mandates.

The brief description of the programs are below:

- General education with supports placement is a program that provides special education students with the supports in a general education environment based upon their individual needs.
- In-class resource placement provides special education students the benefits of a general educational environment that is supported by two teachers: general education and special education. The general education teacher provides the content expertise and complies with the student's individual educational plan. The special education teacher provides the expertise in the individual supports, modification and accommodation as designated in the student's IEP.
- Resource placement provides special education students a smaller setting where the instruction is specialized and individualized to address a student's specific educational needs such as a smaller setting, an adjusted pace or specialized programs. The pace of instruction and content is modified in this program. These needs are determined on an individual basis and vary from student to student.
- Self-contained settings allow students with significant reading/language/cognitive, behavioral or developmental needs to have the individualized instruction that is based upon their academic and functional levels. The supports in this setting vary and are determined based upon the specific needs of the individual student.
- The IEP team makes that program recommendations in conjunction with the testing and information provided by the Child Study Team. The IEP team consists of the student's case manager, parent/guardian of the student, student, general education teacher, special education teacher, counselor/transition coordinator, and any other necessary personnel that has specific knowledge regarding the student. Upon the entrance in Monmouth Regional High School, classified students are assigned a case manager that designs, monitors and ensures implementation that is in compliance with State and Federal code. Educational programs are reviewed annually and changed or modified to address the needs of the individual student.

INDEPENDENCE ACADEMY

The Monmouth Regional Independence Academy is a transition program for students with disabilities. Students who have already completed 4 years of high school and are eligible to stay until the age of 21 can be placed into the Independence Academy upon the recommendation of the Child Study Team. The Independence Academy focuses on community-based instruction and work-based learning to provide authentic learning opportunities for students. The work-based learning coordinator and transition coaches provide instruction and supervision at the Independence Academy.

Independence Academy provides adult students ages 18+ with personalized opportunities to:

- increase independence in daily living skills
- develop workplace and employability skills
- participate in volunteer and work experiences
- transition from traditional schooling to a preparatory life skills program
- become contributing and valued members of society

Community Based Instruction (CBI)

CBI provides students with hands-on learning in natural environments. Students visit a variety of places in the community daily to work on individualized goals. CBI is crucial for generalization of functional and daily living skills.

CBI provides intensive and age-appropriate instruction in:

- functional literacy
- money math
- social and interpersonal communication
- recreation and leisure
- community safety
- personal management
- transportation training
- career exploration

Work Based Learning (WBL)

WBL consists of unpaid work experiences at local businesses to provide real-world employment experiences for students. Students participate in a variety of WBL experiences to develop their employability skills in natural settings. Students complete tasks at their worksites weekly and are monitored by a transition coach, a worksite mentor, and the WBL coordinator. Each student has an individualized training plan to ensure success.

WBL teaches work-readiness skills through:

- job sampling
- career exploration
- development of work preferences
- on-the-job training
- providing meaningful and authentic work tasks at real businesses

New Jersey Seal of Biliteracy Endorsement Program



New Jersey Seal of Biliteracy was established to recognize high school graduates who have attained a high level of proficiency in speaking, reading, listening and writing in one or more world languages, in addition to English. Multilingual Juniors and Seniors are encouraged sign up for their language test each fall with Ms. Mercogliano.

For more information, please visit the website by scanning the QR code.



SCAN ME

Purpose

The Seal of Biliteracy seeks to:

- Encourage students to study languages
- Certify attainment of biliteracy
- Provide employers with a method of identifying people with language and biliteracy skills
- Provide universities with a method to recognize and award academic credit to applicants seeking admission
- Prepare students with 21st century skills
- Recognize and promote second language instruction in public schools
- Strengthen intergroup relationships, affirm the value of diversity, and honor the multiple cultures and language of a community

Requirements

In order for students to be eligible to receive the Seal of Biliteracy, they must meet certain criteria:

- Students must demonstrate a proficiency level of Intermediate Mid in a World Language in all four domains of language.
- Students must demonstrate proficiency in English by meeting State high school graduation requirements in English or its alternatives, including through State ELA assessments.

The World Languages Department offers courses in French, Spanish, and American Sign Language as outlined in the following pages. Our diverse student population presents us with students who have studied abroad and who are placed in advanced levels of a particular language. Students in our World Languages Program are given the opportunity to join World Language Honor Societies in the areas of French and Spanish. Flexibility within our diverse World Languages Program gives us the opportunity to place students according to their level of achievement. Exceptions to all prerequisites may be granted, when justified, upon approval of the Department Supervisor. MRHS juniors and seniors will also have the opportunity to earn the New Jersey Seal of Biliteracy.

AMERICAN SIGN LANGUAGE I (CCR)

[GRADES 9, 10, 11, 12] (NCAA) 5 CR.

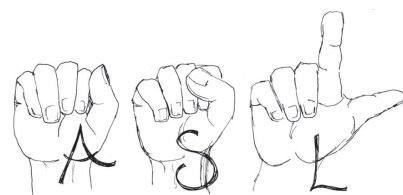
An introduction to American Sign Language (ASL) including ASL vocabulary, the alphabet, fingerspelling, numbers and ASL phrase structure. This class introduces the parameters of ASL which is the basic grammar. Parameters include facial expressions and body language as well as proper hand shapes which are modeled and explained while practicing them expressively. Students will be introduced to glossing. Students will learn sign vocabulary in categories such as greetings, animals, clothing, and food. The students will develop an understanding and appreciation of Deaf history, Deaf Culture, and the development and role of American Sign Language in the Deaf community. Students will learn about famous Deaf people and present a project to the class. In accordance with the New Jersey State and Assembly resolutions of 1995, foreign language credit is awarded for completion of this course. It is highly recommended that students enter this course early in MP 1 as this course builds on itself and is very difficult to grasp when missing large chunks of material.

AMERICAN SIGN LANGUAGE II (CCR)

[GRADES 10, 11, 12] (NCAA) 5 CR.

In this class students will review the signs learned from ASL I and continue to learn more ASL vocabulary. The students will learn vocabulary from categories such as: opposites, money, cities, states, countries, medical and sports. Students will review ASL Parameters (including facial expressions and body language) and structure while learning how to sign conversations. Students will work together in order to present skits using new vocabulary. Students will research occupations related to the Deaf and ASL. Students will create and present marking period projects and be responsible for expressively signing parts of these projects.

Prerequisite: Teacher Recommendation & ASL I



FRENCH I (CCR)

[GRADES 9,10,11,12] (NCAA)

5 CR.

This course is designed for students with minimal to no exposure to French. This class will provide an introduction to functional vocabulary, basic grammatical structures and cultural awareness. The main objective of this course is to have the target language embedded within the 3 modes of communication: interpretive, interpersonal, and presentational.

FRENCH II (CCR)

[GRADES 9, 10,11,12] (NCAA)

5 CR.

This course is designated for those students who have demonstrated sufficient competence in middle school French or French I at MRHS. At this level, students should be comfortable with some general information such as dates, colors and describing themselves. Students should be able to recognize cognates and understand that verbs have different conjugations. Students are expected to be able to begin to navigate the present tense. This class will continue the development of the target language within the 3 modes of communication. Prerequisite: Teacher recommendation, teacher screening and/or placement test

FRENCH II (H)

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

This course is designated for those students who have demonstrated sufficient competence in middle school French or French I at MRHS. This class will continue the development of the target language within the 3 modes of communication. Students in the honors section will move at a faster or more in-depth pace than CCR French II class. Prerequisite: Teacher Recommendation

FRENCH III

[GRADES 10, 11,12] (NCAA)

5 CR.

Continues development of student's communicative competence skills of the first two levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous two levels. Students will be introduced to AP style activities. Prerequisite: Teacher Recommendation

FRENCH III (H)

[GRADES 10,11,12] (NCAA)

5 CR.

Continues development of student's communicative competence skills of the first two levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous two levels. Students will be introduced to AP style activities. Students in the honors section will move at a faster or more in-depth pace than CCR French III class. Prerequisite: Teacher Recommendation



FRENCH IV (H)

[GRADES 11, 12] (NCAA)

5 CR.

This course continues the development of student's communicative competence skills of the first three levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous three levels. Students will continue to be exposed to authentic resources to strengthen their cultural competence. This class will continue to expose students to AP style activities. Prerequisites: Teacher Recommendation

AP FRENCH

[GRADE 12] (NCAA)

5 CR.

The Advanced Placement French language program is designed to provide a stimulating challenge for highly motivated students with a strong interest in French and a willingness to meet a demanding standard of accomplishment. The primary objective of the AP French program is to teach the French language as a means of communication. The course content concentrates on the culture, history, geography and literature, within the context of the AP Themes: Science and Technology, Family and Community, Beauty and Esthetics, Contemporary Life, Global Challenges, Personal and Public Identities. Students will continue to be exposed to authentic resources to strengthen their cultural competence. Prerequisites: Teacher Recommendation

FOUNDATIONS OF SPANISH

[GRADES 9, 10, 11,12]

5 CR.

Provides the student with the opportunity to use the Spanish language. All basic language skills will be addressed in which activities will provide more hands-on opportunities to demonstrate knowledge. Material will be modified and the pace meets their individual needs. Sample themes presented would be Spanish-speaking countries and their celebrations, food and restaurant situations, sports and activities, as well as the basic vocabulary needed to express needs, descriptions and appropriate social and cultural practices. Prerequisite: Teacher Recommendation

SPANISH I (CCR)

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

This course is designed for students with minimal to no exposure to Spanish. This class will provide an introduction to functional vocabulary, basic grammatical structures and cultural awareness. The main objective of this course is to have the target language embedded within the 3 modes of communication: interpretive, interpersonal, and presentational.

SPANISH II (CCR)

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

This course is designated for those students who have demonstrated sufficient competence in middle school Spanish or Spanish I at MRHS. At this level, students should be comfortable with some general information such as dates, colors and describing themselves. Students should be able to recognize cognates and understand that verbs have different conjugations. Students are expected to be able to begin to navigate the present tense. This class will continue the development of the target language within the 3 modes of communication. The goal of this course is to expand the content knowledge for native/ heritage speakers as well as students from the previous level / middle school Spanish. This course will teach standard Spanish grammar as well as vocabulary and cultural elements from various Spanish-speaking countries.

Prerequisite: Teacher Recommendation, teacher screening and/or placement

SPANISH II (H)

[GRADES 9, 10, 11, 12] (NCAA)

5 CR.

This course is designated for those students who have demonstrated sufficient competence in middle school Spanish or Spanish I at MRHS. This class will continue the development of the target language within the 3 modes of communication. Students in the honors section will move at a faster or more in-depth pace than CCR Spanish II class. The goal of this course is to expand the content knowledge for native/ heritage speakers as well as students from the previous level / middle school Spanish. This course will teach standard Spanish grammar as well as vocabulary and cultural elements from various Spanish-speaking countries.
Prerequisite: Teacher Recommendation

SPANISH III (CCR)

[GRADES 10, 11, 12] (NCAA)

5 CR.

Continues development of student's communicative competence skills of the first two levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous two levels. Students will be introduced to AP style activities. The goal of this course is to expand the content knowledge for native/ heritage speakers as well as students from the previous level / middle school Spanish. This course will teach standard Spanish grammar as well as vocabulary and cultural elements from various Spanish-speaking countries.
Prerequisite: Teacher Recommendation

SPANISH III (H)

[GRADES 10, 11, 12] (NCAA)

5 CR.

Continues development of student's communicative competence skills of the first two levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous two levels. Students will be introduced to AP style activities. Students in the honors section will move at a faster or more in-depth pace than CCR Spanish III class. The goal of this course is to expand the content knowledge for native/ heritage speakers as well as students from the previous level / middle school Spanish. This course will teach standard Spanish grammar as well as vocabulary and cultural elements from various Spanish-speaking countries.
Prerequisite: Teacher Recommendation



SPANISH IV (H)

[GRADES 11, 12] (NCAA)

5 CR.

This course continues development of student's communicative competence skills of the first three levels. Students work more in depth through their themes and strengthen their skills of listening comprehension, speaking, reading comprehension, and composition. More emphasis is placed on reading comprehension and writing skills than in the previous three levels. Students will continue to be exposed to authentic resources to strengthen their cultural competence. This class will continue to expose students to AP style activities. The goal of this course is to expand the content knowledge for native/ heritage speakers as well as students from the previous level / middle school Spanish. This course will teach standard Spanish grammar as well as vocabulary and cultural elements from various Spanish-speaking countries.
Prerequisites: Teacher Recommendation

AP SPANISH

[GRADE 12] (NCAA)

5 CR.

The Advanced Placement Spanish language program is designed to provide a stimulating challenge for highly motivated students with a strong interest in Spanish and a willingness to meet a demanding standard of accomplishment. The primary objective of the AP Spanish program is to teach the Spanish language as a means of communication. The course content concentrates on the culture, history, geography and literature, within the context of the AP Themes: Science and Technology, Family and Community, Beauty and Esthetics, Contemporary Life, Global Challenges, Personal and Public Identities. Students will continue to be exposed to authentic resources to strengthen their cultural competence. The curriculum of this course was approved by Seton Hall and it is eligible for 3 Seton Hall credits and could be considered an Intermediate Spanish course in college. The cost is \$110 per credit.
Prerequisite: Teacher Recommendation

World Language Honor Societies

World Language Honor Society inductions for French and Spanish are held in the fall. Students can qualify by meeting their following requirements:

Spanish Honor Society:

- Must be enrolled in Spanish III or higher
- Must have a 92 or higher each marking period

French Honor Society:

- Must have a 92 or higher each marking period in their second full year of French at MRHS

ENGLISH AS A SECOND LANGUAGE

English as a Second Language (ESL) serves a growing population of students from a number of different countries. Students are placed in the ELL program based on the scores of the ACCESS ELL. There are three levels of placement—beginning, intermediate & advanced. Depending on the number of periods taken during the school day, a student can earn 5 to 20 credits per year. However, only 5 credits are given toward English credit; the remaining credits are considered elective credits.

Exit from the program varies based on the following: Students score on access test grades, and teacher/administration recommendation. Like all students, ML students are responsible for passing MRHS graduation requirements, including the state mandated assessment.

To help meet state and local graduation requirements, special courses in World History, U.S. History I and II, Language Arts Literacy, Science and Math are offered to limited English proficient students.

ESL Beginner

This course is designed for students whose first language is not English. Students are provided with assistance in English language acquisition to develop their listening, speaking, reading and writing skills.

ESL Intermediate

This course is the second part of a course of study designed for students whose first language is not English. Students are provided with assistance in English language acquisition to develop their listening, speaking, reading, and writing skills.

ESL Advanced

This course is the third, and final part of a course of study designed for students whose first language is not English. Students are provided with assistance in English language acquisition to develop their listening, speaking, reading, and writing skills.

SHELTERED

ALGEBRA I/GEOMETRY/ALGEBRA II

[GRADES 9, 10, 11, 12]

5CR.

Sheltered Algebra I/Geometry/Algebra II follows the same curriculum as the traditional CCR Algebra I/Geometry/Algebra II curriculum. However, in this Sheltered course, the teacher will make modifications based on the possible language barriers presented by the student population in a given school year. These modifications can come in multiple forms such as the use of more visual cues and picture prompts, the elimination of non-essential vocabulary, and/or accommodations made for individual students as seen fit. The goal of this course is to provide as close as is possible the same instructional experience as in the CCR level course.

SHELTERED BIOLOGY

[GRADES 9, 10, 11, 12]

5 CR.

Biology is a course based on a study of structures and functions of living organisms and their interactions with the environment. Students enrolled in Biology explore the functions and processes of cells, tissues, and systems within various species of living organisms and the roles and interdependencies of organisms within populations, communities, ecosystems, and the biosphere. Students work with concepts, principles, and theories of the living environment. In addition, students enrolled in this course are expected to: (1) gain an understanding of the history and development of biological knowledge; (2) explore the uses of biology in various careers; and (3) investigate biological questions and problems related to personal needs and societal issues. The sheltered section will make accommodations as necessary for students in the process of learning English.

SHELTERED INTEGRATED PRINCIPLES OF CHEMISTRY & PHYSICS

[GRADES 9, 10, 11, 12]

5 CR.

The concepts for this course have been taken from the NGSS important to the study of Chemistry and Physics. It is a college preparatory course, however the emphasis of the course is on developing math and study skills as well as addressing the prerequisite content necessary for success in future science courses in high school and college. Inquiry and skill building techniques are developed through class work, laboratory work, and homework activities. The materials of the course have been developed to interrelate the physical sciences with technology and career opportunities. The sheltered section will make accommodations as necessary for students in the process of learning English.

Prerequisite: Biology

SHELTERED MARINE SCIENCE (CCR)

[GRADES 11, 12] (NCAA)

5 CR.

This course studies the biological, chemical, and physical effects of various environments on the ocean. Students will study many of the inhabitants of the ocean to include their interactions and special needs. The course also includes an in-depth study of other areas of the environment. Students will have the opportunity to participate in “hands on” problem solving activities both individually and as a group, as well as complete outdoor experiments.

SHELTERED WORLD HISTORY

[GRADES 9, 10, 11, 12]

5 CR.

World History LIEP is one of three Social Studies courses required for graduation. Beginning with the Emergence of the First Global Age, this course establishes the foundation for the study of the Early Modern Period to the present. The focus is worldwide in scope and provides LIEP students an historical context for the study of important movements, significant people, and major turning points. Particular emphasis will be placed on the political, social, economic and cultural aspects of each society. World History will also familiarize students with the geography of the contemporary world. Each year the instructional program varies according to the identified needs of the class. As a part of the instructional program students receive enhancement in both language and cognitive development. Throughout the course students are provided multiple opportunities to understand and use the language. A primary goal is to assist students in becoming more proficient in reading, writing, speaking and listening, necessary to support student success on state mandated assessments. This course is the first in a series of three required for graduation.

SHELTERED US HISTORY I

[GRADES 9, 10, 11, 12]

5 CR.

LIEP United States History I is the second of three Social Studies courses required for graduation. The course of study spans the era of colonization through World War I and The Roaring Twenties. A major focus of study includes an examination of political, social and economic events that have helped to shape the character of our nation and our citizens. This course reflects the conviction that good citizenship in a democratic society is predicated on knowledge of society's past and an understanding of how that society "works." Each year the instructional program varies according to the identified needs of the class as a part of the instructional program students receive enhancement in both language and cognitive development. Throughout the course students are provided multiple opportunities to understand and use the language. A primary goal is to assist students in becoming more proficient in reading, writing, speaking and listening, necessary to support student success on state mandated assessments.



SHELTERED US HISTORY II

[GRADES 9, 10, 11, 12]

5 CR.

LIEP United States History II is the last in a series of three Social Studies courses required for graduation. The course is a continuation of United States History I. How did the United States' involvement in World War II lead to its emergence as a leading world power? What socio-economic and cultural changes resulted in the post-war period? How has social justice movements challenged established traditional cultural norms? How did the US economy change and grow in the aftermath of WWII? How has technology transformed American society? How have the dynamics of globalization affected United States' foreign policy? Beginning with The Great Depression, this course tries to explore some essential questions by looking at America since 1929. A variety of issues will be examined from both a national and international perspective. A term paper or a research project is a course requirement. Each year the instructional program varies according to the identified needs of the class as a part of the instructional program students receive enhancement in both language and cognitive development. Throughout the course students are provided multiple opportunities to understand and use the language. A primary goal is to assist students in becoming more proficient in reading, writing, speaking and listening, necessary to support student success on state mandated assessments.

MRHS GRADUATION REQUIREMENTS INDIVIDUAL WORK SHEET

There is no exact program of study for a student to follow. However, there are certain guidelines that should be used, depending on the student's overall goals. The requirements needed to obtain these goals should be discussed with the student's School Counselor.

NJ State graduation requirements are listed below. A minimum total of 120 credits are required for graduation.

You can use the spaces below to make a tentative program of courses for your four years of High School. MRHS offers four 80 minute class periods per day. PLEASE NOTE: Completing this chart does not replace your registration conference with your school counselor.

Graduation Requirements	Grade 9	Grade 10	Grade 11	Grade 12
4 years English	Eng I	Eng II	Eng III	Eng IV
4 years Phys. Ed./Health	PE 9/Health 9	PE 10/Health 10	PE 11/Health 11	PE 12/Health 12
3 years History	World History	US History I	US History II	History Elective
3 years Science Lab Science	Biology	Chemistry	Physics/ Environmental Science	Science Elective
3 years Math	Algebra I	Geometry	Algebra II	Math Elective
2.5 credits Financial Literacy	_____	_____	_____	_____
1 year Practical Arts	_____	_____	_____	_____
1 year Performing or Visual Arts	_____	_____	_____	_____
1 year World Language	_____	Elective	Elective	Elective
Total Credits= 120	Must fulfill New Jersey High School State Testing Requirements			

A person intending to go on to Monmouth County Vocational School will have a shared time schedule their junior and senior years. Their schedule will be as follows:

Grade 9	Grade 10	Grade 11	Grade 12
English I	English II	English III	English IV
PE/Health	PE/Health	PE/Health	PE/Health
World History	U.S. History I	U.S. History II	Elective
Algebra I	Geometry	Algebra II	Elective
Biology	Chemistry		
World Language Course	Practical Arts		
Practical Arts	Visual/Performing Arts		
Visual/Performing Arts	Financial Literacy		

Courses that will fulfill the 5 credits of Visual/Performing Arts are as follows:

Advanced Art	Chorus	Music Appreciation
AP Drawing	Digital Media & Animation I & II	Music Production & Technology
AP Music Theory	Engineering Graphics & Computer Modeling	Music Theory
Art	Fashion & Apparel I, II, III	Musical Theater Performance
Architecture	Game Design	Photography II, III, IV
Art Portfolio	Guitar Techniques I & II	Virtual Production
Band	History of American Popular Music	
Broadway 101: Musical Stagecraft	Interior Design	
Ceramics/Sculpture I, II	Introduction to Graphic Arts	

Courses that will fulfill the 5 credits of Practical Arts are:

Accounting	Computer Science I, II	Independent Living *
AP Computer Science	Data Science & Machine Learning	Interior Design
AP Computer Science Principles	Digital Business Tools & Technology	Introduction to Business*
AP Economics*	Digital Media & Animation I & II	Introduction to Graphic Arts
Architecture	Electronics	Introduction to Economics*
Business Finance Seminar	Engineering Graphics & Computer Modeling	Marketing Education*
Business Law & Ethics	Fashion & Apparel I-III	Robotics
Child Development I, II, III	Foods I	Sports & Entertainment Marketing
Child Development IV: Field Experience	Food Service	Stocks & Financial Markets
Child Development IV: Seminar	Game Design	Virtual Production
Classical and Quantum Computing	Gourmet Foods	

*unless a student is using one of these courses to fulfill the 2.5 credits in Financial Literacy for the graduation requirement

MONMOUTH REGIONAL HIGH SCHOOL

Soaring to Achieve Excellence!



THE FUTURE STARTS HERE

CLASS OF 2023

80%

GRADUATES THAT WENT ON
TO A 2 OR 4 YEAR SCHOOL

CLASS OF 2023

1090

AVERAGE SAT SCORE

OUR STUDENTS HAVE BEEN ACCEPTED AT:

Princeton
UPenn
TCNJ
UDel
Clemson
Lehigh
Williams

Yale
Cornell
Purdue
Villanova
Tulane
NYU
Miami

University of South Carolina
University of Maryland
Merchant Marine Academy
University of Virginia
University of Southern California
University of Georgia
University of California-Irvine

Penn State
Rutgers
Case Western
Arizona State
Northeastern
Vanderbilt
Vassar

WHY MONMOUTH?

AP Capstone Diploma Program

1 of 3

High Schools in Monmouth
County to offer this program

Curriculum

26

AP Courses
Offered

38

Honors
Courses
Offered

5

Dual
Enrollment
Partnerships



Clubs & Activities

40+

ways to get
involved!



Academies

3

STEAM
Business
Performing Arts

Athletics



3

Multi Sport
Turfed Fields

21

Sports
Offered

1

New
Track

