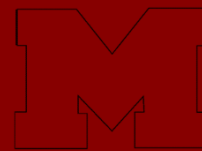
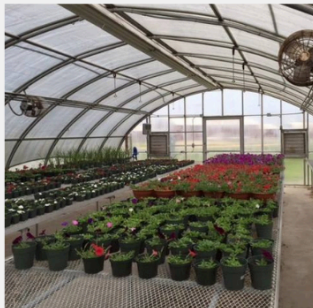
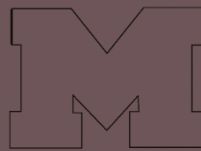


# Milford

## HIGH SCHOOL COURSE CATALOG



# Welcome to Milford High School

Milford High School's priority is to ensure every student is prepared to pursue postsecondary college and career opportunities. Our mission is to provide a safe, nurturing, and academically engaging environment that inspires excellence in learning and personal growth.

In partnership with families and the community, Milford High School develops students who respect themselves and others, value diversity, set meaningful goals, think critically, and adapt to a changing world. Students benefit from a wide range of academic programs, career pathways, athletics, clubs, and extracurricular opportunities.

To be a Milford Buccaneer is to be part of a tradition and community that helps shape futures.

**#WeAreMilford**

## Milford High School

1019 N. Walnut St

(p)302-422-1610 (f)302-424-5463

Principal	Mr. Seth Buford	Ext. 2204
Asst. Principal	Mr. Jed Bell	Ext. 2110
Asst. Principal	Mrs. Betsy Coe	Ext. 2610
Asst. Principal	Dr. Jen Martin	Ext. 2108
Athletic Director	Mr. John Castrese	302-219-6544 (language line)
Senior Secretary	Ms. Katie Killen	Ext. 2105
Secretary	Karen Boone	Ext. 2100
Secretary	Kashanna Hayes	Ext. 2101
Nurse	Laura Richards Cheryl Rash	Ext. 2107

Counselors	Students with last names beginning with:	
Mrs. Bell	A-D	
Ms. McGoff	E-K	
Ms. Llewellyn	L-P	
Mrs. Showell	Q-Z	

## **Programs of Study and Career and Technical Education (CTE) Pathways:**

All Milford High School students complete a program of study, also referred to as a pathway. Each pathway consists of **three sequential courses beyond the required core graduation courses** and is designed to prepare students for college and career success.

Students, families, and school counselors work together to select a pathway that aligns with career interests, academic strengths, and postsecondary goals.

Milford High School's program of study includes four components:

1. Sequential college prep coursework in all core areas of study: English, math, social studies, science, world language, and physical health.
2. Three-course major in a specific college or career area.
3. Opportunities for Dual Enrollment, Advanced College Standing, Articulated College Credit, and/or Advanced Placement (AP) courses.
4. Opportunities for industry certifications and actual career experience through off-campus work-based learning employment or internship experiences.

### **School of Agriscience**

- Agricultural Structures & Engineering
- Animal Science & Management
- Plant Systems

### **School of Business, Management, and Hospitality**

- Academy of Finance
- Hospitality and Tourism Management
- Culinary Arts

### **School of Education and Career Studies**

- K-12 Teacher Academy
- Jobs for Delaware Graduates

### **School of Health Sciences**

- Allied Health
- Public and Community Health
- Emergency Medical Services
- Patient Care

### **School of Art and Design**

- Digital Communication Technology
- Performing Arts
- Visual Arts

### **School of Science, Technology, Engineering, and Math**

- Engineering

## Graduation Requirements:

The Milford School District has rigorous requirements for our students in order to ensure they are prepared for college and career success. Program specifics are on the following pages and outline the options students have to complete their requirements. A pathway is a set of three courses that prepares a student for college and career success.

Incoming freshmen will select a major as part of their enrollment in Milford High School. Students are encouraged to work with parents, school counselors, teachers, and administrators to select the major that best prepares them for college and career readiness. When making this choice, there are two important factors to consider: Are these choices consistent with your career plans, and are these choices commensurate with your academic abilities and performance? If the answer is yes to both questions, this is the right major for you!

### Minimum Graduation Requirements

English	4 credits
Mathematics	4 credits
Social Studies	3 credits
Science	3 credits
World Languages	2 credits
Physical Education	1 credit
Health Education	.5 credit
Pathway	3 credits
Financial Literacy	.5 credits*
Electives	3.5 credits
TOTAL	24.5 CREDITS

*\*beginning with the class of 2029*

## Course Levels

### College Preparatory (CP)

College Preparatory courses are designed to provide a rigorous curriculum aligned with state standards and connected to the student's major. These classes prepare a student for a variety of post-secondary experiences including higher education and/or the workforce.

### Honors (H)

Honors courses are designed to prepare students for the rigors of AP and Dual Enrollment courses in various subjects. These courses move at an accelerated pace and often have more outside reading and homework requirements. All students are encouraged to apply to these programs.

### Advanced Placement (AP)

AP courses prepare students for college work and are equivalent to freshman courses at a university. These courses teach students to think more deeply about complex college concepts. Successful completion of the course offers students the opportunity to sit for the Advanced Placement exam for college credits. Most exams are worth 3 college credits, but can count for up to 8 college credits. While the acceptance of these scores varies from school to school, all colleges consider strength of schedule in the admissions process. AP courses help distinguish a student in this process. Students who take AP courses are required to take the

exam to receive the weighted credit for the course in their cumulative GPA. Tests are in May and financial aid is available for students who qualify.



### Milford High School AP Courses

Biology	Environmental Science	Spanish Language & Culture
Calculus AB	Human Geography	U.S. Government & Politics
Computer Science Principles	Physics 1	U.S. History
English Language and Composition	Psychology	

### College Ready

#### PSAT & SAT

All *Milford High School* students take College Board exams in 9th, 10th, and 11th grade. The fall administration of the PSAT in 11th grade enables students to be eligible for the National Merit Scholarship. These exams are administered free of charge. Students can upload their scores to Khan Academy to receive individualized tutoring activities.



#### Earn college credit while enrolled at Milford High School

Dual Enrollment courses are college courses taught by Milford High School faculty. MHS faculty act as adjunct professors and teach the college course during the school day. Students taking Dual Enrollment courses earn high school and college credit at the same time. Students receive a transcript from the partnering college once credit is earned.

#### Earn articulated credit in a Milford High School course

Articulated credit is awarded when a student takes a course or series of courses at Milford High School, earns at least an 85%, and then enrolls in the partnering institution. Students who enter college in remedial courses do not receive the articulated credit.

#### Take a course at a local college or university

Local area institutions of higher education offer special programming for students interested in taking college courses on campus prior to high school graduation. Such courses can be taken during summer months, after school hours, or during school with special arrangement for school release. Such an experience can be valuable for students.

#### **DSU Early Bird Program**

<https://www.desu.edu/admissions/other-admissions-types/early-bird-program> Requirements: Letter of Recommendation, 3.0 GPA, 6 free credits maximum, or 2.5 GPA, 6 credit maximum, pay full tuition

## **Wilmington University Pre-College Credit Program**

<https://www.wilmu.edu/precollege>

Requirements: 2.7 GPA, commitment to hard work, \$32 per credit + \$25 registration fee, submit application

## **Delaware Technical Community College**

<https://www.dtcc.edu/academics/hs>

Requirements: Must be 16 years of age, pay full tuition

## **Academic Challenge**

Academic Challenge is a specialized program through Delaware Technical Community College. Students apply for admission at the end of 7th grade and begin taking courses at the Owens Campus in Georgetown during 8th grade. Milford School District provides transportation, and counselors work with students to schedule courses during the school day. Academic Challenge students earn college credit for courses taken in the Academic Challenge program.

## **Career Ready**

### ***Work-based Learning***

Students who complete a Career Technical Education (CTE) major are eligible for work-based learning. Students in work-based learning secure internships and/or paid employment in their field of study. They are released to work during school hours and earn high school credit for their work experience. Work-based learning students provide their own transportation. Students' employers rate their performance and students must validate their work experience through records and assignments. The work-based learning coordinator monitors students and assigns a grade. Work-based learning experiences are a great addition to any resume.

## **Student Athlete**


***Academic Eligibility Requirements for Athletics*** Delaware Interscholastic Athletic Association (DIAA) governs all Delaware athletics. In order to participate in high school athletics, the student must pass at least five (5) credits, two (2) of which must be core courses in English, math, social studies, science, and/or world language. All seniors must be passing every class they need for graduation. At the beginning of the year a student must have passed five (5) credits, two (2) of which must be core classes from the previous school year.



## **Career and Technical Education (CTE)**

Career and Technical Education (CTE) provides an important pathway to success for high school students and offers each student opportunities to personalize their education based on their career interests and unique learning needs. **To graduate, a student is required to complete 3 sequential classes within a pathway.**

# Career Pathways and Programs of Study


Career and Technical Education (CTE) Pathways					
	Pathway	Course 1	Course 2	Course 3	Potential Careers
School of Agriscience	<b><u>Agricultural Structures &amp; Engineering</u></b>	<u>Fundamentals of Agricultural Structures &amp; Engineering</u>	<u>Structural Systems in Agriculture</u>	<u>Essential Skills in Agricultural Structures &amp; Engineering</u>	<i>Welding Technicians, Mechanical Technicians, Carpentry, Engineering, Architectural Design, Electrical, Plumbing, Masonry, Business Management, Sales</i>
	<b><u>Animal Science and Management</u></b>	<u>Foundations of Animal Science</u>	<u>Growth and Development of Domestic Animals</u>	<u>Domestic Animal Management</u>	<i>Veterinarian, Zoologist, Animal Researcher, Animal Processor, Vet Assistant/ Technician, Wildlife Manager, Animal Rescue/Animal Control Officer, Agriculture Producer</i>
	<b><u>Plant Systems</u></b>	<u>Foundations of Plant Science</u>	<u>Plant &amp; Soil Systems</u>	<u>Plant Systems Management &amp; Sustainability</u>	<i>Agronomy, Ornamental Horticulture, Biotechnology, Forestry, Soil Science, and Turf</i>

					<i>Management</i>
<b><u>School of Art &amp; Design</u></b>	<b><u>Digital Communication Technology</u></b>	<u>Foundations of Digital Design</u>	<u>Processes of Digital Production</u>	<u>Applications of Digital Design</u>	<i>Potential Careers: Graphic Designer, Broadcaster, Journalist, Photographer, Audio/Video Producer, Digital Media Designer</i>
<b><u>School of Science, Technology, Engineering, &amp; Math Pathway</u></b>	<b><u>Engineering</u></b>	<u>Introduction to Engineering</u>	<u>Principles of Engineering</u>	<u>Engineering Design &amp; Development</u>	<i>Potential Careers: Mechanical Engineer, Civil Engineer, City Planner, Electrical Engineer, Biomedical Engineer, Architect</i>
<b><u>School of Education &amp; Career Studies Pathways</u></b>	<b><u>K-12 Teacher Academy</u></b>	<u>Introduction to Education and Human Growth &amp; Development</u>	<u>Teaching as a Profession</u>	<u>Foundations of Curriculum &amp; Instruction</u>	<i>Elementary and Secondary Education</i>
<b><u>School of Business, Management, and Hospitality</u></b>	<b><u>Academy of Finance</u></b>	<u>Fundamentals of Finance</u>	<u>Principles of Accounting</u>	<u>Financial Services</u>	<i>Personal Financial Advisor, Tax Preparation Specialist, Accountant, Financial Analyst, Loan Officer, Account Representative, Insurance Agent, and Claims Representative</i>
	<b><u>Culinary Arts</u></b>	<u>Fundamentals of Culinary Arts</u>	<u>Advanced Food Production</u>	<u>The Culinary Professional</u>	<i>Executive Chef and Sous Chef,</i>

					<i>Food Service Manager, Kitchen Manager, Catering and Events Manager and Line Cook</i>
	<b><u>Hospitality and Tourism Management</u></b>	<u>Introduction to Hospitality &amp; Tourism Management</u>	<u>Lodging Management</u>	<u>Food &amp; Beverage Management</u>	<i>Front Office Supervisor, Front Desk Associate, Director of Tourism, Catering and Events Manager, Event Coordinator, and Hotel General Manager</i>
<b><u>School of Health Sciences</u></b>	<b><u>Allied Health</u></b>	<u>Fundamentals of Health Science</u>	<u>Essentials of Health Careers</u>	<u>BIO: 110 Essentials of Anatomy &amp; Physiology</u> OR Level 3: <u>BIO 120: Anatomy &amp; Physiology I</u>	<i>Respiratory Therapist, Nurse, Physical Therapist, Dental Hygienist, Medical Lab Technician</i>
	<b><u>Patient Care</u></b> <i>Prerequisite: Pass Levels 1 &amp; 2 in Allied Health or Public Health Pathways</i>	Certified Nurse Assisting Training	Patient Care Technician	Certified Phlebotomy Technician	<i>CNA PCT Phlebotomist</i>
	<b><u>Public and Community Health</u></b>	<u>Fundamentals of Health Sciences</u>	<u>Essentials of Public &amp; Community Health</u>	<u>HLT321: Personal Wellness</u>	<i>Public Health Officers, Policy Makers, Healthcare management teams, nursing, Advanced practice Nurses, Physicians Assistants, Health Educator, Program</i>

					Evaluators
	<b><u>Emergency Medical Services</u></b>	<b><u>Fundamentals of Health Sciences</u></b>	<b><u>EMS I - Introduction to Emergency Medical Services</u></b>	<b><u>EMS II - Advanced Emergency Medical Services</u></b>	Emergency Medical Technician (EMT), Paramedic

## Academic Pathways

	Pathway	Course 1	Course 2	Course 3
<a href="#"><u>School of Arts and Design</u></a>	<a href="#"><u>Performing Arts</u></a>	A combination of three performing arts courses, including band, choir, and drama.		
	<a href="#"><u>Visual Arts</u></a>	A combination of three visual arts courses, including art, digital design technology, and yearbook.		
<b>School of Education and Career Studies</b>	<b>College Scholars</b>	A combination of three AP or Dual Enrollment courses above the requirements for graduation.		

## Academic Course Descriptions

### English

#### English 9

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Aligned to Common Core standards, the 9th grade curriculum offers an in-depth introduction to high school writing expectations and an intense survey of specific literary types. Students will learn to gather evidence from texts and incorporate it in written and oral responses.

**Honors English 9**

*Level: Pre-AP*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors English 8 or qualifying score*

Aligned to the Common Core state standards, the 9th grade honors curriculum offers an in-depth study of literary works. Students will continue the acquisition of critical-thinking skills to independently read and analyze literature. Students' writing will focus on the literary analysis of complex works. This course also includes oral presentations, independent readings, and a research paper.

**English 10**

*Level: College Prep*

*Credit: 1*

*Prerequisite: English 9*

This course focuses on combining literary analysis and writing skills. Students are introduced to selected longer works and are asked to write increasingly longer papers, primarily the five-paragraph essay, which incorporates analysis of literary elements. The student learns advanced research techniques while studying grammar and mechanics to improve writing skills.

**Honors English 10**

*Level: Pre-AP*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors English 9 or qualifying score; summer reading assignment required*

This course is designed to hone the student's speaking, writing, listening, and reading skills. Students will continue a study of literary genres using critical approaches to reader response and reader response writings. Course activities include a research paper and projects relating to the literary and historical background of selected works. Intense writing practice will assist students' preparation for the state assessment and for AP Language and Composition.

**English 11**

*Level: College Prep*

*Credit: 1*

*Prerequisite: English 10*

This course includes a study of American literature from the Puritans and early settlers up to modern times. Students learn historical background by reading, discussing, and writing critically about representative short stories, novels, poetry, essays, and drama. Independent readings and a research paper using MLA formatting are required.

**English 12**

*Level: College Prep*

*Credit: 1*

*Prerequisite: English 11*

This course prepares college-bound students for the types of writing they will need for success after high school: letters, essays, and literary analyses. The course also develops critical reading skills. Writing

instruction emphasizes clarity, aptness, and smoothness of expression. Students study traditional selections of British literature and complete independent readings. The goal of this class is to help the student use revision strategies independently and to develop critical-thinking skills. Students are required to complete a research paper using MLA format.

### **AP English Language and Composition**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: None*

This course prepares students for success on the AP English Language and Composition exam. It enhances the ability of the student to become a skilled reader of various types of prose and to become a skilled writer who composes for a variety of purposes. The focus of the course is an intensive use of the writing process. In addition, there is a close examination of textual material to strengthen reading comprehension. Students taking this course are required to take the AP Language and Composition exam.

### **AP English Literature and Composition**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: None*

This course is an intensive study of the methods and techniques writers use to create valid arguments, often while synthesizing information from multiple sources. Students will read a variety of genres, write and revise essays modeled on different modes of analysis, work to improve the breadth and depth of vocabulary, and prepare for the AP Literature and Composition Exam.

### **Eng 101: Composition I**

*Level: Dual Enrollment*

*Credit: 1 MHS & 3 DTCC*

*Prerequisite: SAT 480 ERW or Accuplacer Reading 78, Writing 84, or 75% grade in Technical Reading & Writing*

This college-level course is designed to teach the concepts of critical-thinking and reading skills in the context of written response and essay writing. The four units cover Personal Essay, Research and Integrating Sources using APA, Summary and Response Writing, and Critical Evaluation. The course requires independent reading skills and strong time management abilities.

### **Eng 102: Composition II**

*Level: Dual Enrollment*

*Credit: 1 MHS & 3 DTCC*

*Prerequisite: 70% or higher in Composition I*

This college-level course builds on Composition I and reinforces critical thinking, research skills, and writing techniques. The four units cover Article Analysis, Informative Research Writing, Argumentative Research Writing, and Oral Presentation of research. The course requires independent reading skills and strong time management abilities.

## Math

### **Algebra I**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. The critical focus of the course is to deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend. Students engage in methods for analyzing, solving, and using linear, exponential, and quadratic functions. Additional topics within data analysis and statistics will be explored. The Mathematical Practice Standards apply throughout the course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **Geometry**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Algebra I*

Students explore complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments. Important geometric ideas are explored and formalized including transformations, congruency, similarity, and right triangle trigonometry. The Mathematical Practice Standards apply throughout the course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

### **Honors Geometry**

*Level: Pre-AP*

*Credit : 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors Algebra I or qualifying score*

Students explore complex geometric situations and deepen their explanations of geometric relationships, moving toward formal mathematical arguments. Important geometric ideas are explored and formalized including transformations, congruency, similarity, and right triangle trigonometry. The Mathematical Practice Standards apply throughout the course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **Algebra II**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Geometry*

Building on their work with linear, quadratic, and exponential functions from Algebra I, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Additional topics within statistics and probability will be explored. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **Honors Algebra II**

*Level: Pre-AP*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors Geometry or qualifying score*

Building on their work with linear, quadratic, and exponential functions from Algebra I, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms. Additional topics within statistics and probability will be explored. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations.

## **Pre-Calculus**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Algebra II*

Pre-calculus is a higher-level academic course designed to prepare students for college calculus by giving them a comprehensive knowledge of functions. Topics include analytic geometry, trigonometric functions, logarithmic and exponential functions, inverse functions, graphing, and sequences and series.

## **Honors Pre-Calculus**

*Level: Pre-AP*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors Algebra II or qualifying score*

Honors Pre-Calculus is a rigorous, fast-paced course designed to prepare students for AP Calculus AB in their senior year. Topics include all those covered in a college prep pre-calculus course along with an

introduction to the limit concept in calculus. This course is designed for those students who are highly motivated and intend to enroll in AP Calculus AB the following year.

### **AP Calculus AB**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: Honors Pre-Calculus*

This course is designed to prepare students for the AP Calculus exam in May. This course begins with an introduction to the limit concept and continues with basic differentiation and integration. Functions will be analyzed numerically, algebraically, and graphically, utilizing the graphing calculator as an essential tool in the analysis. Trigonometric functions, as well as real world applications, are an integral part of this course.

### **Contemporary Mathematics**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Core performance objectives for this course include: use set theory to solve application problems, solve application problems involving real numbers, solve application problems using basic algebraic principles, apply introductory statistical concepts to solve application problems, apply ratios, proportions, percentages, simple and compound interest formulas to solve consumer mathematics problems.

### **MAT 152: Quantitative Reasoning**

*Level: Dual Enrollment*

*Credits: 1 MHS (Weighted) & 3 DTCC*

*Prerequisite: SAT 500 Math or Accuplacer Algebra 67*

Quantitative Reasoning serves students who are focused on developing quantitative literacy skills that will be meaningful for their professional, civic, and personal lives. Such reasoning is a habit of mind, seeking pattern and order when faced with unfamiliar contexts. In this course, an emphasis is placed on the need for data to make good decisions and an understanding of the dangers inherent in basing decisions on anecdotal evidence rather than data. Students will focus on number, ratio, and proportional reasoning; modeling; probability; and statistics.

## **Science**

### **Physical Science - Integrated**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course will focus on providing a foundation for subsequent science courses by providing students with fundamental concept knowledge from chemistry and physics. It will present students with experience in chemical reactions, structures and properties of matter, forces and interactions, energy, waves, and electromagnetic radiation. Engineering practices have been integrated into this curriculum, as well as a focus on scientific practices to help students prepare for more expanded studies as they progress through additional science courses.

### **Biology**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course will focus on three major units of study: nature of science and evolution, chemical biology, and genetic transmission and biotech. The curriculum will be taught using a wide variety of methodologies including reading and writing in the content area, interactive hands-on lab work, research, problem-solving, and scientific inquiry activities. To be successful, students will need to design and execute experiments, analyze experimental data, and conduct independent research and/or other projects outside of class.

### **Honors Biology**

*Level: Pre-AP*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Honors Physical Science—Integrated or qualifying score*

This course will focus on three major units of study: evolution and natural selection, cell theory, and genetics. The curriculum will be taught using a wide variety of methodologies including reading and writing in the content area, interactive hands-on lab work, research, problem-solving, and scientific inquiry activities. To be successful, students will need to design and execute experiments, analyze experimental data, and conduct independent research and/or other projects outside of class. A heavy emphasis will be placed on higher-level understanding of the connections between the experiments and the concepts. This course is suitable preparation for AP Biology.

### **AP Biology**

*Level: Advanced Placement*

*Credits: 1 (Weighted)*

*Prerequisite: Completion of the summer assignment*

The AP Biology course is designed to be the equivalent of a two-semester college introductory biology course usually taken by biology majors during their first year. This course is designed to prepare students to take the Advanced Placement test and earn up to eight credit hours. Topics in lecture and laboratory include molecules and cells, heredity and evolution, organisms, and populations.

### **Chemistry**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course will investigate the fundamental concepts of modern chemical laws and theories. These concepts will be established by gathering evidence from both classroom activities and from performing classical and modern laboratory investigations. Some topics include graphing, using laboratory instruments, chemical reactions and the equations that describe them, properties of gases, mole relationships, kinetic molecular theory, acids and bases, and atomic structure and bonding.

### **CHM 110: Introduction to Chemistry**

*Level: Dual Enrollment*

This course surveys the basic principles of college chemistry and prepares students to enter more advanced courses in college. Organic and physical chemistry concepts are explored in depth.

### **Physics**

*Level: College Prep*

*Credit: 1*

*Prerequisites: Fluency in Algebra and Trigonometry concepts suggested*

An experiential inquiry-based approach to Newtonian mechanics and basic electric circuits. Topics include kinematics, Newton's laws, momentum and collisions, circular motion and gravity, simple harmonic motion, mechanical waves, work and conservation of energy, electrostatics, and basic DC circuits. Fluency in algebra and trigonometry is required.

### **AP Physics 1**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Physics or qualifying score*

A mathematically rigorous pre-engineering approach to Newtonian mechanics and basic electric circuits with a passing score in the AP Physics 1 exam as the objective. Topics include kinematics, Newton's laws, momentum and collisions, circular motion and gravity, simple harmonic motion, mechanical waves, work and conservation of energy, electrostatics, and basic DC circuits. Fluency in algebra and trigonometry is required.

### **Earth Science**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course will focus on four major units of study: astronomy, meteorology, geology, and oceanography. Emphasis will be on the changing environment and how Earth systems are affected by human activity. The curriculum will be taught using a wide variety of methodologies including reading and writing in the content area, interactive hands-on lab work, research, problem solving, and scientific inquiry activities. To be successful, students will need to design and execute experiments, analyze experimental data, and conduct independent research and/or other projects outside of class.

### **AP Environmental Science**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: None*

The AP Environmental Science course is designed to be the equivalent of an introductory university course in environmental science. It is an interesting, complex, and applicable science that is constantly changing and expanding. Environmental issues are in the news every day, and it is more important than ever to understand the science behind the stories. The course will stress scientific principles, processes, and analysis, while also providing opportunities to explore the many social, political, economic, and ethical issues that are relevant to the environmental topics studied. In both breadth and level of detail, the content of the course reflects what is found in many introductory college courses in environmental science. All students are expected to take the AP Environmental Science exam upon completion of the course.

### **BIO 110: Essentials of Anatomy and Physiology**

*Level: College Prep*

*Credit: 1 MHS & 3 DTCC*

This course includes structure and function of the human body with an emphasis on gross anatomy, as well as all organ systems and their relationship to homeostasis. Coordinated laboratory activities are an integral part of this course.

### **BIO 120: Anatomy and Physiology I**

*Level: Dual Enrollment*

*Credit: 1 MHS & 5 DTCC*

*Prerequisite: Essentials of Health Careers and SAT 480 ERW, Accuplacer Reading 78, Writing 84, or 75% grade in Technical Reading & Writing*

This course introduces students to the anatomy and physiology of humans including the structure and function of cells, tissues, and integumentary, skeletal, muscular, nervous, and endocrine systems. Coordinated laboratory experiments are an integral part of this course. Students learn the physiology of each body system, as well as how to investigate common diseases, disorders, and emerging diseases. The prevention and diagnosis of disease and treatment are addressed.

## **Social Studies**

### **Human Geography**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course will examine chronological eras of historical world events through the lens of human geography. Starting in the Middle Ages and ending with the onset of the dawn of the Industrial Age, students will explore

historical continuity and change, and link past events to modern-day issues and current events. Students will develop the skills to compare and contrast events, analyze primary and secondary sources, interpret historical documents, and gain a deeper understanding of the complex/diverse world around them. Throughout the course, students will apply themes of geography to historical time periods. The different areas of focus include human interaction with the world, how things like disease and information spread throughout the world, different regions of the world, and geographic factors that help cities and towns become successful.

### **US History**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course begins at the reconstruction of the Civil War. It explores the political, social, and economic development of our country as it builds to a world power in the late 1800s, crashes in a Great Depression of the 1930s, rises to a world police post-World War II, struggles internally within a Civil Rights movement, and fights the Cold War of communism. Students will utilize different methods that historians use to interpret the past, including varying points of view and historical context.

### **US Government & Economics**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

The Civics curriculum focuses on the history and foundation of the American government; the American Constitution; the Legislative, Executive, and Judicial branches of government; the political system; state and local government; and citizenship. The course traces colonial history as cause and effect to the Founders' choices in creation of government. Units of study analyze the Constitution in application and as an evolving document of citizenship rights over time, whether by President, Congress, the legal process, and/or political action groups. Civics makes modern-day connections, applies the spectrum of liberal and conservative political views, and provides macro- and microeconomics foundations as applied to policy. The economics curriculum provides an understanding of the principles of economics that apply to an economic system as a whole. Emphasis is placed on the study of the business cycles, taxes as federal and state revenue, the Federal Reserve System, and an understanding of monetary and fiscal policy in America.

### **AP Human Geography**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: None*

The purpose of 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. Students employ spatial concepts and landscape analysis to examine human social organization and its environmental consequences. They also learn about the methods and tools geographers use in their science and practice. The particular topics studied in an AP Human Geography course should be judged in light of the following five college-level goals that build on the National Geography Standards developed in 1994 and revised in

2012. On successful completion of the course, the student should be able to: interpret maps and analyze geospatial data, understand and explain the implications of associations and networks among phenomena in places, recognize and interpret the relationships among patterns and processes at different scales of analysis, define regions and evaluate the regionalization process, and characterize and analyze changing interconnections among places.

### **AP US History**

*Level: Advanced Placement*

*Credits: 1 or 2 (Weighted)*

*Prerequisite: Minimum grade of C in U.S. Government & Economics or qualifying score. Completion of the summer assignment.*

The AP U.S. History course is designed to provide students with the analytical skills and enduring understandings necessary to deal critically with the problems and materials in United States history. The program prepares students for intermediate and advanced college courses by making demands upon them equivalent to those made by full-year introductory college courses. Students will learn to assess historical materials – their relevance to a given interpretive problem, their reliability, and their importance – and to weigh the evidence and interpretations presented in historical scholarship. This course will develop the skills necessary to arrive at conclusions on the basis of an informed judgment and to present reasons and evidence clearly and persuasively in an essay format.

### **AP US Government & Politics**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: Completion of the summer assignment*

This course provides an analytical perspective on government and politics in the United States. This course involves both the study of general concepts used to interpret U.S. politics and the analysis of specific case studies. It also requires familiarity with the various institutions, groups, beliefs, and ideas that constitute U.S. political reality. While there is no single approach that an AP U.S. Government & Politics course must follow, certain topics are generally covered in college courses.

### **AP Psychology**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: Completion of the summer assignment*

This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

### **SOC 111: Sociology**

*Level: Dual Enrollment Credit: 1 MHS & 3 DTCC*

*Prerequisite: SAT 480 ERW, Accuplacer Reading 78, Writing 84, or 75% in Technical Reading & Writing*

This course provides an analysis of American social organization and culture through a cross-cultural

perspective. Sociology investigates, describes, and analyzes patterns of human behavior in all areas of human experience for the purpose of understanding the human condition.

### **Psychology**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course is designed to introduce students to the systematic and scientific study of the behavior and mental processes of human beings and other animals. Students are exposed to the psychological facts, principles, and phenomena associated with each of the major subfields within psychology. They also learn about the ethics and methods psychologists use in their science and practice.

### **CRJ 101: Survey of Criminal Justice**

*Level: Dual Enrollment (Wilm U)*

*Credit: 1 MHS & 3 Wilm U*

This course is a survey of agencies and processes involved in the administration of criminal justice. The survey reviews the functions of the legislature, police, prosecutor, courts, and the correctional system. Problems of law enforcement in a democratic society are discussed. This course ties together all components of criminal justice and includes issues of both the juvenile and adult offender. Register on blackboard in advance.

## **World Language**

### **Spanish I**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This is an introductory course which acquaints the student with basic vocabulary and structure of spoken and written Spanish. Reading, pronunciation, speaking, and aural comprehension are emphasized. Customs and other cultural aspects of Spanish-speaking countries are examined.

### **Spanish II**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Spanish I*

In Spanish II, vocabulary and grammatical forms are developed through elementary reading material and related writings. A deeper investigation of the cultural aspects of Spanish-speaking countries is a vital part of

this course. Practical, real-life situations are studied by the students and used to learn the language through the use of scenarios and compositions.

### **Spanish III**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Spanish II*

In Spanish III, vocabulary and grammatical forms are developed through reading and discussion of more comprehensive material. Oral and written communication are emphasized through writing assignments, vocabulary lists, and class-paced grammar review. The study of civilization and of culture is expanded. All instruction is held primarily in Spanish.

### **Spanish IV**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Spanish III*

In Spanish IV, vocabulary and grammatical forms are developed through reading and discussion of more comprehensive material. Students explore deeper writing and Spanish literature.

### **AP Spanish Language and Culture**

*Level: Advanced Placement*

*Credit: 1 (Weighted)*

*Prerequisite: Minimum grade of C in Spanish III or the option to test in*

The AP Spanish Language & Culture course covers the equivalent of a college course in advanced Spanish composition and conversation. This course emphasizes oral communication, composition, and grammar. All activities are conducted in Spanish. The AP Spanish program allows the opportunity to earn college credit in a foreign language.

## **Additional Required Coursework**

### **Physical Education**

*Prerequisite: None*

*Credit: 1*

Physical education provides opportunities for healthful and vigorous activities. Instruction is given for a large variety of activities including soccer, football, field hockey, basketball, volleyball, tennis, and others. Team and individual strategies are taught and game situations are used for practical application.

**Health**

*Prerequisite: None*

*Credit: .5*

Health is a program based on state objectives that prepares students to make healthy choices. Personality, emotional health (include stress), abstinence-based education, and substance abuse education are some of the topics studied.

**Drivers Education**

*Level: Grade 10*

*Credit: .5*

*Prerequisite: Must be classified as a 10th grader in August of sophomore year*

Classroom study precedes driving lab. All students must be academically eligible to participate in the "on the road" training portion of this course. Only grade 10 students who meet the criteria may be enrolled. Students are scheduled according to the date of their sixteenth birthday and academic record. At the completion of this course, students will be prepared to enter the Delaware Graduated Driver's License Program.

**SCHOOL OF AGRISCIENCE****Agricultural Structures & Engineering****Fundamentals of Agricultural Structures & Engineering (FASE)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students gain hands-on experience in agricultural construction and engineering. Projects include reading and developing construction plans, site preparation, material selection, building construction, and tool identification, use, and safety.

**Structural Systems in Agriculture (SSA)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Fundamentals of Agricultural Structures & Engineering*

Students design, plan, and construct small-scale structures related to larger construction projects. Instruction includes advanced equipment use, electrical wiring, plumbing, and engineering applications.

**Essential Skills in Agricultural Structures & Engineering (ESASE)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Structural Systems in Agriculture*

This capstone course emphasizes HVAC systems, concrete and masonry, advanced woodworking, and interior finishing techniques needed for agricultural construction and related industries.

## **Animal Science & Management**

### **Foundations of Animal Science (FAS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This introductory course explores the fundamentals of animal science, including animal origin, domestication and uses, careers in the animal industry, animal safety and sanitation, animal contributions to society, taxonomy and breeds, basic nutrition and health, biosecurity principles, environmental impacts on animals, and animal rights versus welfare. Students also develop foundational leadership skills, responsibility, and cooperation through participation in FFA activities, Supervised Agricultural Experience (SAE) programs, and career and leadership development events as part of a school-based, three-component agricultural education model.

### **Growth & Development of Domestic Animals (GDDA)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Foundations of Animal Science (FAS)*

This course builds on foundational animal science concepts and emphasizes animal growth and development. Students apply principles related to biosecurity, environmental conditions, nutrition, health management, animal products and processing, laws and sustainable practices, industry standards for animal selection, and scientific concepts of anatomy, physiology, and reproduction. Leadership development and cooperative learning are reinforced through FFA participation, SAE programs, and career and leadership development events.

### **Domestic Animal Management (DAM)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Growth & Development of Domestic Animals (GDDA)*

Students demonstrate mastery of animal science concepts through advanced application of technical knowledge and hands-on experiences. Instruction focuses on biosecurity, global applications of animal agriculture, reproduction and genetics, nutrition, animal health evaluation, selection and marketing, and legal responsibilities. Students further apply skills gained through SAE programs, FFA leadership activities, and career and leadership development events to serve the community within the three-component agricultural education model.

## **Plant Systems**

**Foundations of Plant Science (FPS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students explore plant industries and the U.S. food system, examining crop production for food and ornamental purposes. Topics include plant structure and function, nutrition, soil science, water management, cultural practices, pest management, and horticulture careers. Leadership and responsibility are developed through FFA, SAE programs, and career development events.

**Plant & Soil Systems (PSS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Foundations of Plant Science*

This course builds on plant science fundamentals through hands-on laboratory and experiential learning. Instruction includes soil science, water and pest management, crop production, and work in land labs, greenhouses, landscape beds, floral production, and hydroponics.

**Plant Systems Management & Sustainability (PSMS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Plant & Soil Systems*

Students apply horticulture production principles, facility design, soil conservation, integrated pest management, pesticide application, business management, and record keeping. Emphasis is placed on sustainability, global economic systems, and the role of plants in improving quality of life.

**School of Business, Management, and Hospitality****Academy of Finance****Fundamentals of Finance**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students explore financial literacy, personal finance, financial institutions, and the role of finance in society. Emphasis is placed on technology's impact on financial services and responsible financial planning.

**Principles of Accounting**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Fundamentals of Finance*

Students learn accounting principles and how financial data supports organizational decision-making using technology-based applications.

### **Financial Services**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Principles of Accounting*

This course examines banking, investment strategies, insurance, and financial services careers while building research and analytical skills.

## **Hospitality & Tourism Management**

### **Introduction to Hospitality & Tourism Management (IHTM)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students explore hospitality and tourism industries, guest services, economic impact, and professional skills including problem-solving, communication, and time management.

### **Lodging Management (LM)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Introduction to Hospitality & Tourism Management*

Students examine operations of lodging facilities and practice customer relations, marketing, inventory, and management through simulated experiences.

### **Food & Beverage Management (FBM)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Lodging Management*

Students apply cost controls, menu design, management strategies, sustainability, and global perspectives within food and beverage operations.

**Culinary Arts** The Culinary & Hospitality Management pathway is a three (3) and six (6) course CTE program that is supported by the National Restaurant Association Education Foundation. ProStart® trains students on industry-specific skills that can be used in all aspects of the restaurant and hospitality industry along with the employability skills like leadership, accountability, teamwork, and responsibility.

The program prepares students for careers such as Executive chef and Sous Chef, Food Service Manager, Kitchen Manager, and Line Cook.

### **Fundamentals of Culinary Arts**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Description: Culinary Arts I introduces students to the foundational knowledge and skills required for success in the culinary and foodservice industry. Students explore kitchen safety and sanitation, proper use of tools and equipment, measurement and recipe interpretation, and fundamental food preparation techniques. Emphasis is placed on teamwork, communication, time management, and professionalism in a commercial kitchen setting. Students will prepare a variety of basic food products while learning the principles of nutrition, flavor development, and presentation. This course provides a strong foundation for advanced culinary study and entry-level foodservice experiences.

### **Advanced Food Production**

*Level: College Prep*

*Credit: 1*

*Prerequisite: FCA*

Description: Culinary Arts II builds upon the foundational skills learned in Culinary Arts I and focuses on advanced food preparation, production techniques, and kitchen operations. Students develop proficiency in preparing complex recipes, working with proteins, baking and pastry fundamentals, and applying culinary techniques from a variety of global cuisines. Instruction emphasizes production planning, cost control, portioning, and quality standards. Students practice leadership and collaboration while operating in a simulated professional kitchen environment. This course prepares students for work-based learning experiences, industry credentials, and higher-level culinary coursework.

### **The Culinary Professional**

*Level: College Prep*

*Credit: 1*

*Prerequisite: FCA, AFP*

Description: Culinary Arts III prepares students for postsecondary education and careers in the culinary and hospitality industries. Students apply advanced culinary techniques while managing real-world kitchen operations, including menu development, inventory management, food costing, and customer service. Emphasis is placed on professionalism, leadership, entrepreneurship, and industry standards. Students may participate in catering events, school-based enterprises, or internships to gain authentic work experience. Upon completion, students will demonstrate career-ready skills aligned with industry expectations and be prepared for culinary certification programs, apprenticeships, or entry-level employment.

## **Career Studies**

Jobs for Delaware Graduates (JDG)

Each JDG course builds progressively on employability, leadership, financial literacy, and career readiness skills, culminating in a senior career portfolio

**JDG 9:**

*Level: college Prep*

*Credit: 1*

*Prerequisite: None*

Study skills, goal setting, decision-making, and self-awareness

**JDG 10:**

*Level: college Prep*

*Credit: 1*

*Prerequisite: JDG 9*

Workplace skills, customer service, financial literacy, and leadership

**JDG 11:**

*Level: college Prep*

*Credit: 1*

*Prerequisite: JDG 10*

Resume writing, interviewing, critical thinking, and ethics

**JDG 12:**

*Level: college Prep*

*Credit: 1*

*Prerequisite: JDG 11*

Career planning, employment readiness, professional etiquette, and portfolio development

**K–12 Teacher Academy****Human Growth & Development**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course introduces students to human physical, cognitive, social, and emotional development from conception through early adolescence. Students examine major theories and current research related to human development, as well as biological, environmental, and social influences that impact growth. Challenges to typical development are also explored.

**Education as a Profession**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Human Growth & Development*

Students explore the role of teachers in the past, present, and future to better understand the importance of education in American society. The course examines the responsibilities, expectations, and leadership roles of effective teachers across grade levels. Students also identify personal and professional goals and explore pathways toward a career in education.

**Curriculum & Instruction**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Teaching as a Profession*

This course explores instructional strategies and curriculum delivery models designed to meet diverse learner needs. Students develop lesson plans, assessments, and instructional materials that promote engagement and effective classroom management. Emphasis is placed on technology integration and creating supportive learning environments.

## School of Health Sciences

### Allied Health

#### **Fundamentals of Health Science (FHS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This introductory course explores careers in healthcare and serves as the foundation for all Health Science pathways. Students learn medical terminology, including Greek and Latin prefixes, suffixes, roots, abbreviations, and terminology related to diseases, procedures, and allied health specialties. Students also examine National Consortium for Health Science Education (NCHSE) standards, develop entry-level healthcare skills, and begin preparation for the National Health Science Assessment.

#### **Essentials of Health Careers**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Fundamentals of Health Science*

Students develop an understanding of a wide range of healthcare careers, including education requirements, advancement opportunities, employment settings, and earning potential. Through classroom, laboratory, and simulated clinical experiences, students apply foundational knowledge and skills related to patient care and healthcare delivery systems.

#### **BIO 110: Essentials of Anatomy & Physiology**

*Level: College Prep*

*Credit: 1 (MHS)*

*Prerequisite: None*

This course examines the structure and function of the human body with an emphasis on gross anatomy and the relationship among organ systems. Coordinated laboratory activities support instruction and reinforce key physiological concepts related to homeostasis.

#### **BIO 120: Anatomy & Physiology I**

*Level: Dual Enrollment*

*Credit: 1 (MHS) & 5 (DTCC)*

*Prerequisite: Essentials of Health Careers and qualifying SAT, Accuplacer, or Technical Reading & Writing score*

Students study human anatomy and physiology, including cells, tissues, and the integumentary, skeletal, muscular, nervous, and endocrine systems. Laboratory experiments reinforce learning as students investigate body systems, common diseases, disorders, emerging health issues, and disease prevention, diagnosis, and treatment.

## Public & Community Health

### **Fundamentals of Health Science (FHS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This course introduces students to healthcare careers and provides foundational knowledge in medical terminology, health science standards, and entry-level healthcare skills. Students also begin preparation for the National Health Science Assessment.

### **Essentials of Public & Community Health (EPCH)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Fundamentals of Health Science*

Students explore population health and the social, behavioral, and environmental factors that influence wellness. Topics include the history of public health, healthcare delivery systems, epidemiology, mental health, substance abuse, disabilities, and disease prevention. Students participate in Mental Health First Aid certification through the National Council for Behavioral Health and continue preparation for the National Health Science Assessment.

### **HLT 321: Personal Wellness**

*Level: Dual Enrollment*

*Credit: 1 (MHS) & 5 (DTCC)*

*Prerequisite: None*

This course focuses on the Six Dimensions of Wellness: physical, emotional, social, intellectual, spiritual, and occupational. Students examine nutrition, exercise, disease prevention, and behavior change strategies. The course is articulated with Wilmington University and concludes with completion of the National Health Science Assessment.

## Patient Care - Certified Nursing Assistant

*Selective admissions*

### **CNA (Junior year)**

*Level: Dual Enrollment*

*Credit: 2*

*Prerequisite: Selective admissions*

Description: This program prepares students to safely perform essential nursing duties under the supervision of a licensed nurse in a healthcare setting. Emphasis is placed on communication, observation, and documentation skills to support the psychological, physical, and environmental needs of patients. Upon successful completion of the course, students will be eligible to sit for the Delaware Nurse Aide Competency Exam to become a Certified Nursing Assistant (CNA).

## Patient Care Tech/Phlebotomy

*Level: Dual Enrollment*

*Credit: 2*

*Prerequisite: CNA*

Description: Patient Care Technicians (PCTs) are vital members of the healthcare team, providing direct patient care and support in clinical settings. This program prepares students with the fundamental knowledge and hands-on skills needed to assist patients in hospital environments under the supervision of Registered Nurses (RNs) or other licensed medical staff.

Upon successful completion of the program, students will be eligible to take the Patient Care Technician certification exam offered by the National Healthcare Association (NHA).

## **Emergency Medical Services**

### **Fundamentals of Health Science (FHS)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This introductory course explores careers in healthcare and serves as the foundation for all Health Science pathways. Students learn medical terminology, including Greek and Latin prefixes, suffixes, roots, abbreviations, and terminology related to diseases, procedures, and allied health specialties. Students also examine National Consortium for Health Science Education (NCHSE) standards, develop entry-level healthcare skills, and begin preparation for the National Health Science Assessment.

### **EMS I - Introduction to Emergency Medical Services**

*Level: College Prep*

*Credit: 1*

*Prerequisite: FHS*

Description This course is designed to provide foundational knowledge and skills as related to careers in the EMS field.

### **EMS II - Advanced Emergency Medical Services (starting 2027-28)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: EMS I*

Description: Building on the foundations of Intro to EMS, this course provided hands on training and skills needed to assist patients from routine transports to life-threatening situations. Upon successful completion students will be eligible to sit for the EMS certification offered by the Nations EMS registry.

## **School of Arts and Design**

### **Visual Arts**

#### **Art I**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Introduction to Visual Art will allow students to explore a variety of two- and three-dimensional art media while focusing on the art elements and principles of design. Students will study art works and periods in the context of culture and history. Critical-thinking skills will be used during art creation, research, critiques, and discussion. Students will be expected to create, discuss, and write about art works.

### **Art II**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Introduction to Visual Art*

This course builds upon the foundation established in Introduction to Visual Art with immediate emphasis on advanced drawing and painting techniques. The student is required to create numerous works utilizing more challenging and original subject matter to communicate multiple layers of visual information.

### **Art III**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Drawing and Painting*

This course encourages the exploration of individual directions in various art processes with an open syllabus and studio environment. The student will enhance drawing and painting skills, expressing high quality in all work including presentation and display. Works in this course may be used to build their art portfolio.

### **Yearbook**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students produce the school yearbook through hands-on experience in writing, layout design, photography, advertising, and publication. Skills are applied to complete the annual Milfordian.

## **Performing Arts**

### **Concert Band**

*Level: College Prep*

*Credit: 1*

*Prerequisite: At least three (3) years training (or equivalent) on a woodwind, brass, or percussion instrument.*

This course is designed to expose students to a diversity of musical styles through a variety of performance venues. During the first semester, members will participate in the marching and concert bands.

Performances include all football games, annual Christmas concert, and various parades and community performances. All performances, as well as summer band camp, are mandatory. The second semester focuses on concert band and ensemble playing, leading toward a spring concert and preparation for the spring band trip. All students are required to do individual practice or private lessons on their own. Advanced students are eligible to audition for the Delaware All-State Band.

### **Marching Band**

*Level:*

*Credit:*

*Prerequisite: At least three (3) years training (or equivalent) on a woodwind, brass, or percussion instrument.*

This course is designed to expose students to a diversity of musical styles through a variety of performance venues. During the first semester, members will participate in the marching and concert bands.

Performances include all football games, annual Christmas concert, and various parades and community performances. All performances, as well as summer band camp, are mandatory. The second semester focuses on concert band and ensemble playing, leading toward a spring concert and preparation for the

### **Band Front**

*Length: Semester (Fall Only)*

*Credit: 1*

*Prerequisite: Audition*

This class is open to students who wish to offer a visual presentation of music performed by the marching band. Students interested in the squad must audition in the spring. Students learn basic field/marching technique, as well as fundamental routines. Performances include all football games and various parades. Students are expected to attend scheduled practices throughout the summer, as well as band camp. Band front members are required to attend rehearsals and performances throughout the marching season. Since this is a performance-based class, students who play a band instrument are required to rehearse with the concert band following the marching season.

### **Jazz Band**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Audition and at least three (3) years (or equivalent) of training on a brass, woodwind or percussion instrument.*

This course focuses on performance of instrumental jazz literature. This course will help students evaluate, appreciate, and perform jazz music as an original American art form. Instrumentation is limited to select rhythm, brass, and woodwind instruments. Members must audition to be a part of the ensemble. This ensemble will perform regularly throughout the community during the school year.

### **Concert Choir 1**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Concert Choir is a vocal performance class focusing on the techniques of singing, music reading, and group performance. Students will study and perform diverse styles of music from several music history periods. Regular attendance and active participation during rehearsals and performances is mandatory. Performances include various school and community functions, as well as the Winter & Spring Night of the Arts. Advanced participants are eligible to audition for the Delaware All-State Choir.

### **Chamber Choir**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Chamber Choir is an advanced level choir for singers who have a strong choral background. Interested students must be in the MHS Concert Choir for at least one entire school year to be considered for this ensemble. Open to grades 10, 11, and 12 only with an audition.

### **Drama**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This drama class is intended to teach the basics of acting technique including characterization, movement, and vocal variety. Students will perform monologues, partner scenes, and group skits in front of the class. Students will learn using improvisation, reader's theatre, and performance viewing. Theatre history, design, and careers may also be taught.

## **Digital Communication Technology**

### **Foundations of Digital Design (FDD)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students learn foundational principles of visual communication, including design elements, color theory, typography, copyright and fair use, and image manipulation. Emphasis is placed on professional communication skills and client-based design. Students begin developing a cumulative capstone portfolio.

### **Processes of Digital Production (PDP)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Foundations of Digital Design*

This course focuses on digital media production using industry-standard software. Students develop skills in raster image editing, publishing, digital media literacy, HTML coding, and web development. Coursework supports continued development of the capstone portfolio.

### **Applications of Digital Design (ADD)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Processes of Digital Production*

Students apply advanced design skills through digital illustration, video production, and broadcasting. Instruction emphasizes vector image creation, video editing, and client-based projects through district and community partnerships. Students complete the capstone portfolio.

## **School of Science, Technology, Engineering, and Math**

### **Engineering**

#### **Introduction to Engineering Design (IED)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students apply the engineering design process, math, and science principles to hands-on projects. Using 3D modeling software and engineering notebooks, students design, test, and document solutions individually and collaboratively.

### **Principles of Engineering (POE)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Introduction to Engineering Design*

This course explores engineering concepts such as mechanisms, material strength, automation, and systems. Students strengthen problem-solving, research, collaboration, documentation, and presentation skills.

### **Engineering Design & Development (EDD)**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Principles of Engineering*

As the PLTW Engineering capstone course, students identify a real-world problem and design, test, and present a solution to industry professionals. Emphasis is placed on professional documentation, collaboration, and presentation skills to prepare students for postsecondary education and careers.

## **Additional Course Offerings (\*Subject to availability and interest)**

### **Delaware Volunteer Credit**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Students in grades 9–12 may earn one elective credit by completing 90 hours of approved community service outside the school day. Service must be completed at a Delaware nonprofit organization and approved by the State Office of Volunteerism. Political or advocacy activities are not permitted.

### **Honors Research**

*Level: Pass/Fail*

*Prerequisite: Enrollment in three or more Honors, AP, or Dual Enrollment courses*

This course supports students enrolled in advanced coursework through structured study time, progress monitoring, and conferencing. Students develop research and academic skills while managing rigorous course loads.

### **Senior Option / Work-Based Learning**

*Level: College Prep*

*Credit: 1*

*Prerequisite: Application required*

Senior Option allows students to extend learning through college coursework, internships, cooperative work experiences, volunteer service, or senior projects aligned to career goals.

**Study Skills**

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

This support course teaches effective study strategies while providing academic reinforcement for core content classes.

**ASL\***

*Level: Elective*

*Credit: 1*

*Prerequisite: None*

Description: Elective class; Students will learn about deaf culture and explore the predominant language in the United States for deaf communities. This is not a foreign language credit.

**World Through Film\***

*Level: Elective*

*Credit: 1*

*Prerequisite: Non*

Description: Students will examine culture and history through film analysis.

**Museum Studies\***

*Level: Elective*

*Credit: 1*

*Prerequisite: None*

Description: Students will explore the social, theoretical, and practical roles of museums in society. Students will also learn about historical interpreters and their role in State Parks and museums.

**Delmarva History\***

*Level: Elective*

*Credit: 1*

*Prerequisite: None*

Description Students will engage in a historical view of the States that make up the Delmarva Peninsula.

**Public Speaking\***

*Level: Elective*

*Credit: 1*

*Prerequisite: None*

Description Students will learn the structure of effective public speaking - through creative and engaging exercises that focus on the speaking and listening common core state standards.

**Piano\***

*Level: Elective*

*Credit: 1*

*Prerequisite: None*

Description: Students will learn the fundamental basics of music through the piano. Students will create and perform as a showcase in the class.

**Orchestra\***

*Level: College Prep*

*Credit: 1*

*Prerequisite: None*

Description: This class is designed to focus on the performance of instrumental orchestra literature. It will help students evaluate, appreciate, and perform in an orchestra setting. This ensemble will meet and perform regularly throughout the community during the school year.